OWNER'S MANUAL

Operation
Maintenance
Specifications

All information in this Owner's Manual is current at the time of publication. However, HYUNDAI reserves the right to make changes at any time so that our policy of continual product improvement may be carried out.

This manual applies to all models of this vehicle and includes descriptions and explanations of optional as well as standard equipment.
As a result, you may find material in this manual that does not apply to your specific vehicle.

CAUTION: MODIFICATIONS TO YOUR HYUNDAI

Your HYUNDAI should not be modified in any way. Such modifications may adversely affect the performance, safety or durability of your HYUNDAI and may, in addition, violate conditions of the limited warranties covering the vehicle. Certain modifications may also be in violation of regulations established by the U.S. Department of Transportation and other federal or state agencies.

TWO-WAY RADIO INSTALLATION

Your vehicle is equipped with a Tire Pressure Monitoring System, Passenger Occupant Classification System and other CAN bus systems. It is possible for an improperly installed/adjusted high powered two-way radio to adversely affect electronic systems. For this reason, we recommend that you carefully follow the radio manufacturer's instructions if you choose to install one of these devices.

SAFETY AND VEHICLE DAMAGE WARNING

This manual includes information titled as DANGER, WARNING, CAUTION and NOTICE.

These titles indicate the following:



DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.



WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

NOTICE indicates a situation which, if not avoided, could result in vehicle damage.

HYUNDAI VEHICLE OWNER PRIVACY POLICY

Your Hyundai vehicle may be equipped with technologies and services that use information collected, generated, recorded or stored by the vehicle. Hyundai has created a Vehicle Owner Privacy Policy to explain how these technologies and services collect use and share this information.

You may read our Vehicle Owner Privacy Policy on the Hyundaiusa.com website at: https://www.hyundaiusa.com/owner-privacy-policy.aspx

If you would like to receive a hard copy of our Vehicle Owner Privacy Policy, please contact the Hyundai Customer Care Center at:

Hyundai Customer Care
P.O Box 20850
Fountain Valley, CA 92728
800-633-5151
consumeraffairs@hmausa.com

Hyundai's Customer Care Center representatives are available Monday through Friday,
between the hours of 6:00 AM and 5:00 PM PST and Saturday between 6:30 AM and 3:00 PM PST (English).

For Customer Care assistance in Spanish or Korean, representatives are available Monday through Friday between 6:30 AM and 3:00 PM PST.

Table of contents

Foreword / Starting your Hybrid / Plug-in hybrid vehicle 1

Vehicle Information, Consumer Information and Reporting Safety Defects 2

Seats & Safety System 3

Instrument Cluster 4

Convenience Features 5

Driving Your Vehicle 6

Driver Assistance System 7

Emergency Situations 8

Maintenance 9

Index I

1. Foreword/Starting your Hybrid/Plug-in hybrid vehicle

Vehicle Data Collection and Event Data Recorders 1-9
HEV (Hybrid Electric Vehicle) System 1-10
PHEV (Plug-in Hybrid Electric Vehicle) System 1-11
Charging the Plug-in Hybrid Vehicle 1-12
- Charging Information 1-12
- Charging Time 1-12
- Charging Types 1-13
- Charging Status 1-14
- Scheduled Charging 1-15
- Charging Connector Lock 1-16
- Charging Precautions 1-17
- Electric Charging Label 1-19
- AC Charge 1-20
- Trickle Charge (Type A) 1-25
- Trickle Charge (Type B) 1-37
- Action to be Taken when Charging Stops Abruptly 1-50

Driving the Hybrid Vehicle 1-51
- Starting the Vehicle 1-51
- Special Features 1-51
- Hybrid System Gauge 1-53
- Plug-in Hybrid Mode (Plug-in hybrid vehicle) 1-54
- Aux. Battery Saver+ (Plug-in hybrid vehicle) 1-55
- Warning and Indicator Lights 1-57
- Cluster Display Messages 1-58
- Energy Flow 1-66

Hybrid Driving System 1-69
- e-Handling (Electrically Assisted Handling Performance)/e-EHA (Electrically Evasive Handling Assist) 1-69

Safety Precautions for Hybrid System 1-70
- Hybrid Vehicle Components 1-70
- Service Interlock Connector 1-72
- Hybrid Battery Cooling Duct 1-72
- If an accident occurs 1-73
- When the Hybrid Vehicle Shuts Off 1-74

FOREWORD

Congratulations, and thank you for choosing HYUNDAI. We are pleased to welcome you to the growing number of discerning people who drive HYUNDAIs. We are very proud of the advanced engineering and high-quality construction of each HYUNDAI we build.

Your Owner's Manual will introduce you to the features and operation of your new HYUNDAI. To become familiar with your new HYUNDAI, so that you can fully enjoy it, read this Owner's Manual carefully before driving your new vehicle.

This manual contains important safety information and instructions intended to familiarize you with your vehicle's controls and safety features so you can safely operate your vehicle.

This manual also contains information on maintenance designed to enhance safe operation of the vehicle. It is recommended that all service and maintenance on your car be performed by an authorized HYUNDAI dealer. An authorized HYUNDAI dealers are prepared to provide high-quality service, maintenance and any other assistance that may be required.

This Owner's Manual should be considered a permanent part of your vehicle, and should be kept in the vehicle so you can refer to it at any time. The manual should stay with the vehicle if you sell it to provide the next owner with important operating, safety and maintenance information.

HYUNDAI MOTOR AMERICA

CAUTION

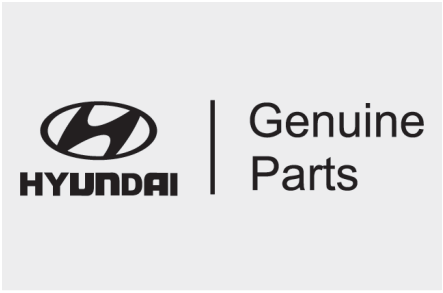
Severe engine and transmission damage may result from the use of poor quality fuels and lubricants that do not meet HYUNDAI specifications. You must always use high quality fuels and lubricants that meet the specifications listed on Page 2-20 in the Vehicle Specifications section of the Owner's Manual.

Copyright 2024 HYUNDAI Motor America. All rights reserved. No part of this publication may be reproduced, stored in any retrieval system or transmitted in any form or by any means without the prior written permission of HYUNDAI Motor America.

GUIDE TO HYUNDAI GENUINE PARTS

1. What are HYUNDAI Genuine Parts?

HYUNDAI Genuine Parts are the same parts used by HYUNDAI Motor Company to manufacture vehicles. They are designed and tested for the optimum safety, performance, and reliability for our customers.

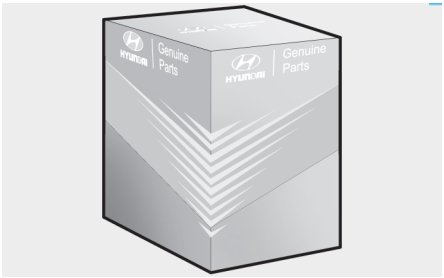




2. Why Hyundai Genuine Parts?

HYUNDAI Genuine Parts are engineered and built to meet rigid manufacturing requirements. Damage caused by using imitation, counterfeit or used salvage parts is not covered under the HYUNDAI New Vehicle Limited Warranty or any other HYUNDAI warranty.

In addition, any damage to or failure of HYUNDAI Genuine Parts caused by the installation or failure of an imitation, counterfeit or used salvage part is not covered by any HYUNDAI Warranty.

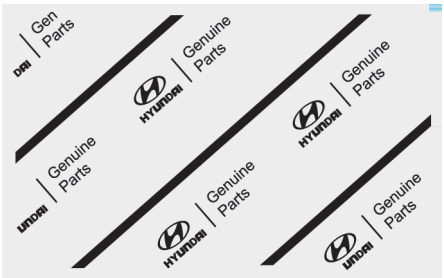


3. How can you tell if you are purchasing HYUNDAI Genuine Parts?

Look for the HYUNDAI Genuine Parts Logo on the package (see below).

HYUNDAI Genuine Parts exported to the U.S. are packaged with labels written only in English.

HYUNDAI Genuine Parts are only sold through authorized HYUNDAI Dealerships.



HOW TO USE THIS MANUAL

We want to help you get the greatest possible driving pleasure from your vehicle. Your Owner's Manual can assist you in many ways. To gain an overview of the contents of your Owner's Manual, use the Table of Contents in the front of the manual. The first page of each Chapter includes a detailed Table of Contents of the topics in that Chapter.

To quickly locate information about your vehicle, use the Index in the back of the manual. It is an alphabetical list of what is in this manual and the page number where it can be found.

For your convenience, we have incorporated tabs on the right-hand page edges. These tabs are coded with the Chapter titles to assist you with navigating through the manual.

SAFETY MESSAGES

Your safety, and the safety of others, are very important. This Owner's Manual provides you with many safety precautions and operating procedures. This information alerts you to potential hazards that may hurt you or others, as well as damage your vehicle.

Safety messages found on vehicle labels and in this manual describe these hazards and what to do to avoid or reduce the risks.

Warnings and instructions contained in this manual are for your safety. Failure to follow safety warnings and instructions can lead to serious injury or death.

Throughout this manual DANGER, WARNING, CAUTION, NOTICE, and the SAFETY ALERT SYMBOL will be used.



This is the safety alert symbol. It is used to alert you to potential physical injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death. The safety alert symbol precedes the signal words DANGER, WARNING, and CAUTION.

DANGER

DANGER indicates a hazardous situation that, if not avoided, will result in death or serious injury.

WARNING

WARNING indicates a hazardous situation that, if not avoided, could result in death or serious injury.

CAUTION

CAUTION indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

NOTICE

NOTICE indicates a situation that, if not avoided, could result in vehicle damage.

FUEL REQUIREMENTS

Unleaded

Your new vehicle is designed to perform optimally with unleaded fuel having an octane number((R+M)/2) of 87 (Research Octane Number 91) or higher. (Do not use methanol blended fuels)

Your new vehicle is designed to obtain maximum performance with UNLEADED FUEL, as well as minimize exhaust emissions and spark plug fouling.

NOTICE

To prevent damage to the engine and engine components, never add any fuel system cleaning agents to the fuel tank other than what has been specified.

Consult an authorized HYUNDAI dealer for additional information.

WARNING

- **Do not "top off" after the nozzle automatically shuts off when refueling.**
- **Always check that the fuel cap is installed securely to prevent fuel spillage in the event of an accident.**

Gasoline containing alcohol and methanol

Gasohol, a mixture of gasoline and ethanol (also known as grain alcohol) are being marketed along with or instead of leaded or unleaded gasoline. For example, "E15" is a gasohol comprised of 15% ethanol and 85% gasoline.

Do not use gasohol containing more than 10% ethanol, and do not use gasoline or gasohol containing any methanol. Either of these fuels may cause drivability problems and damage to the fuel system, engine control system and emission control system.

Discontinue using gasohol of any kind if drivability problems occur.

"E85" fuel is an alternative fuel comprised of 85 percent ethanol and 15 percent gasoline, and is manufactured exclusively for use in Flexible Fuel Vehicles. "E85" is not compatible with your vehicle. Use of "E85" may result in poor engine performance and damage to your vehicle's engine and fuel system. HYUNDAI recommends that customers do not use fuel with an ethanol content exceeding 15 percent.

NOTICE

To prevent damage to your vehicle's engine and fuel system:

- **Never use gasohol which contains methanol.**
- **Never use gasohol containing more than 15% ethanol.**
- **Never use leaded fuel or leaded gasohol.**
- **Never use "E85" fuel.**

Your New Vehicle Limited Warranty does not cover damage to the fuel system or any performance problems caused by the use of "E85" fuel.

Using Fuel Additives (except Detergent Fuel Additives)

Using fuel additives such as:

- Silicone fuel additive
- Ferrocene (iron-based) fuel additive
- Other metallic-based fuel additives

may result in cylinder misfire, poor acceleration, engine stalling, damage to the catalyst, or abnormal corrosion, and may cause damage to the engine resulting in a reduction in the overall life of the powertrain.

- The Malfunction Indicator Lamp (MIL) may illuminate.

NOTICE

Damage to the fuel system or performance problem caused by the use of these fuels may not be covered by your New Vehicle Limited Warranty.

Gasoline containing MMT

Some gasoline contains harmful manganese-based fuel additives such as MMT (Methylcyclopentadienyl Manganese Tricarbonyl). HYUNDAI does not recommend the use of gasoline containing MMT. This type of fuel can reduce vehicle performance and affect your emission control system.

The malfunction indicator lamp on the cluster may come on.

Detergent Fuel Additives

HYUNDAI recommends that you use good quality gasolines treated with detergent additives such as TOP TIER Detergent Gasoline, which help prevent deposit formation in the engine. These gasolines will help the engine run cleaner and enhance performance of the Emission Control System. For more information on TOP TIER Detergent Gasoline, please go to the website (www. toptiergas.com).

For customers who do not use TOP Tier Detergent Gasoline regularly, and have problems starting or the engine does not run smoothly, detergent-based fuel additives that you can purchase separately may be added to the gasoline. If TOP TIER Detergent Gasoline is not available, one bottle of additive added to the fuel tank according to the maintenance schedule is recommended (refer to the Maintenance Schedule in chapter 9).

Additives are available from your authorized HYUNDAI dealer along with information on how to use them. Do not mix other additives.

Operation in foreign countries

If you are going to drive your vehicle in another country, be sure to:

- Observe all regulations regarding registration and insurance.
- Determine that acceptable fuel is available.

VEHICLE MODIFICATIONS

- This vehicle should not be modified. Modification of your vehicle could affect its performance, safety or durability and may even violate governmental safety and emissions regulations.

  In addition, damage or performance problems resulting from any modification may not be covered under warranty.
- If you use unauthorized electronic devices, it may cause the vehicle to operate abnormally, wire damage, battery discharge and fire. For your safety, do not use unauthorized electronic devices.

NOTICE

Some warning sounds (including welcome/good-bye sound, etc.) are generated from the interior speakers or amplifiers. If necessary, purchase HYUNDAI Part to replace an interior speaker or amplifier. Any unauthorized product may cause a malfunction of the interior speakers or amplifiers.

VEHICLE HANDLING INSTRUCTIONS

As with other vehicles of this type, failure to operate this vehicle correctly may result in loss of control, an accident or vehicle rollover.

Specific design characteristics (higher ground clearance, track, etc.) give this vehicle a higher center of gravity than other types of vehicles. In other words they are not designed for cornering at the same speeds as conventional 2-wheel drive vehicles. Avoid sharp turns or abrupt maneuvers. Again, failure to operate this vehicle correctly may result in loss of control, an accident or vehicle rollover. Be sure to read the "Reducing the risk of a rollover" driving guidelines, in section 6 of this manual.

VEHICLE BREAK-IN PROCESS

By following a few simple precautions for the first 600 miles (1,000 km) you may add to the performance, economy and life of your vehicle.

- Do not race the engine.
- While driving, avoid sudden acceleration.
- Do not maintain a single speed for long periods of time, either fast or slow. Varying engine speed is needed to properly break-in the engine.
- Avoid hard stops, except in emergencies, to allow the brakes to seat properly.
- Fuel economy and engine performance may vary depending on vehicle break-in process and be stabilized after 4,000 miles (6,000 km). New engines may consume more oil during the vehicle break-in period.
- Do not tow a trailer during the first 1,200 miles (2,000km) of operation.

WARNING

CALIFORNIA PROPOSITION 65 WARNING

Items contained in motor vehicles or emitted from them are known to the State of California to cause cancer and birth defects or reproductive harm. These include:

- **Gasoline and its vapors**
- **Engine exhaust**
- **Used engine oil**
- **Interior passenger compartment components and materials**
- **Component parts which are subject to heat and wear**

In addition, battery posts, terminals and related accessories contain lead, lead compounds and other chemicals known to the State of California to cause cancer and reproductive harm.

For more information go to https://www.p65warnings.ca.gov/passenger-vehicle

VEHICLE DATA COLLECTION AND EVENT DATA RECORDERS

This vehicle is equipped with an event data recorder (EDR). The main purpose of an EDR is to record, in certain crash or near crash-like situations, such as an air bag deployment or hitting a road obstacle, data that will assist in understanding how a vehicle's systems performed. The EDR is designed to record data related to vehicle dynamics and safety systems for a short period of time, typically 30 seconds or less.

The EDR in this vehicle is designed to record such data as:

- How various systems in your vehicle were operating;
- Whether or not the driver and passenger safety belts were buckled/fastened;
- How far (if at all) the driver was depressing the accelerator and/or brake pedal; and,
- How fast the vehicle was traveling.

These data can help provide a better understanding of the circumstances in which crashes and injuries occur. NOTE: EDR data are recorded by your vehicle only if a non-trivial crash situation occurs; no data are recorded by the EDR under normal driving conditions and no personal data (for example, name, gender, age, and crash location) are recorded. However, other parties, such as law enforcement, could combine the EDR data with the type of personally identifying data routinely acquired during a crash investigation.

To read data recorded by an EDR, special equipment is required, and access to the vehicle or the EDR is needed. In addition to the vehicle manufacturer, other parties, such as law enforcement, that have the special equipment, can read the information if they have access to the vehicle or the EDR.

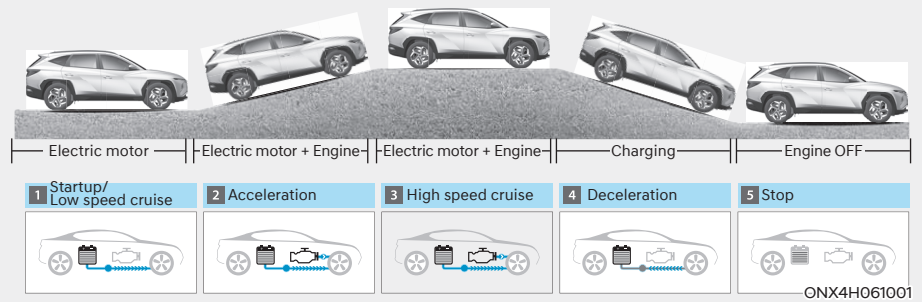
HEV (HYBRID ELECTRIC VEHICLE) SYSTEM

The HYUNDAI Hybrid Electric Vehicle (HEV) uses both the gasoline engine and the electric motor for power. The electric motor is run by a high-voltage HEV battery.

Depending on the driving conditions, the HEV computer selectively operates between the engine and the electric motor or even both at the same time.

Fuel efficiency increases when the engine is at idle, or when the vehicle is driven by the electric motor with the HEV battery.

The HEV battery charge must be maintained, so at times the engine will come on even at idle to act as a generator. Charging also occurs when decelerating or by regenerative braking.



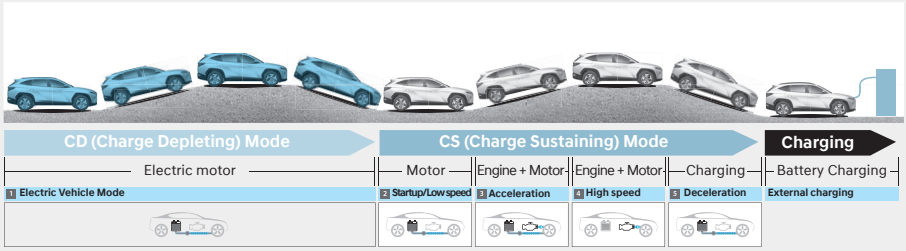
PHEV (PLUG-IN HYBRID ELECTRIC VEHICLE) SYSTEM

The HYUNDAI Plug-in Hybrid Electric Vehicle (PHEV) shares the characteristics of both a conventional hybrid electric vehicle and an all-electric vehicle.

When used as a conventional hybrid electric vehicle, the HEV computer selectively operates between the engine and the electric motor or even both at the same time.

When it is operating in the electric vehicle mode, the vehicle is driven only using the electric motor over a certain distance until the hybrid battery becomes low. The driving distance in EV mode depends on customer driving style and road conditions. Aggressive driving maneuvers or in need of diagnosis for emission related parts, may enable the engine to operate. However, engine power can be limited during emission reduction control period in cold engine condition.

The hybrid battery can be fully charged by connecting a plug to an external electric power source.



ONX4EPHQ011001L

CHARGING THE PLUG-IN HYBRID VEHICLE

Charging Information

AC Charge:

The plug-in hybrid vehicle is charged by plugging into a AC charger installed in your home or a public charging station. (For further details, refer to the 'AC Charge'.)

Trickle Charge:

The plug-in hybrid vehicle can be charged by using household electricity. The electrical outlet in your home must comply with regulations and can safely accommodate the Voltage / Current (Amps) / Power (Watts) ratings specified on the portable charge.

Charging Time

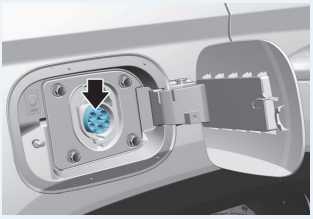
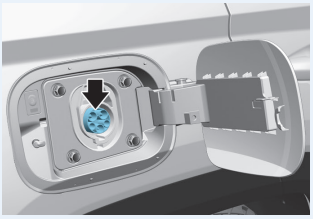
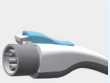
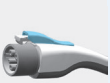
AC Charge:

Takes approximately 2 hours 15 minutes at room temperature. (Can be charged to 100%.)

Information

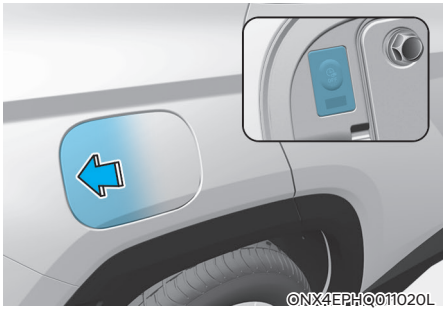
Depending on the condition and durability of the high voltage battery, charger specifications, and ambient temperature, the time required for charging the high voltage battery may vary.

Charging Types

Category	AC Charge	Trickle Charge
Charging Inlet (Vehicle)	 ONX4PHQ011018N	 ONX4PHQ011018N
Charging Connector	 ONE1Q011083	 ONE1Q011083
Charging Outlet	 OLFP0Q5007K	 ONX4EPHQ011019L
How to Charge	Use AC charger installed in homes or public charging station	Use household current
Charging Time	Approx. 2 hours 15 minutes (to fully charge, 100%)	For charging at home. Please note that the Trickle Charger is slower than the AC Charger.

- Depending on the condition and durability of the high voltage battery, charger specifications, and ambient temperature, the time required for charging the high voltage battery may vary.
- Actual charger image and charging method may vary in accordance with the charger manufacturer.

Charging Status



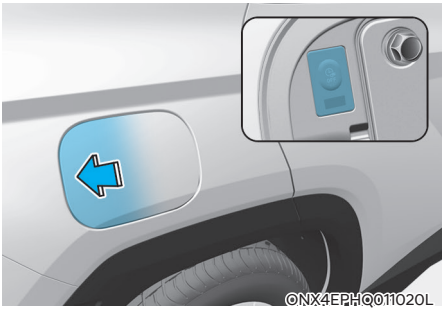
When charging the high voltage battery, the charge level can be checked from outside the vehicle.

Classification		Details		Operation of charging indicator lamp	
Mode	Status			Charging inlet	Charging button
A	READY	Non-charging state	0 ~ 65 %	On (Yellow)	Off
			65 ~ 100 %	On (Green)	Off
B	Aux. Battery Saver / High voltage warning	Charging the 12V auxiliary battery / High voltage warning state		On (Red)	Off
C	Charging	Charging	0 ~ 65 %	Blinking (Yellow)	Off
			65 ~ 100 %	Blinking (Green)	Off
D	Charging complete	Charging completed (turns off in 5 seconds)	100 %	On (Green) → OFF	Off
E	Charging failed	Error while charging		Blinking (Red)	Off
F	Scheduled charging standby	Reserved charging is operating (turns OFF after 3 minutes)		Off	ON
G	Error	CAN communication error status		On (Green) → On (Orange) → On (Red)	Off

Scheduled Charging (if equipped)

- You can set-up a charging schedule for your vehicle using the infotainment system or BlueLink application.

  Refer to the infotainment system manual or the BlueLink manual for detailed information about setting scheduled charging.
- Scheduled charging can only be done when using a AC charger or the portable charger (ICCB: InCable Control Box).



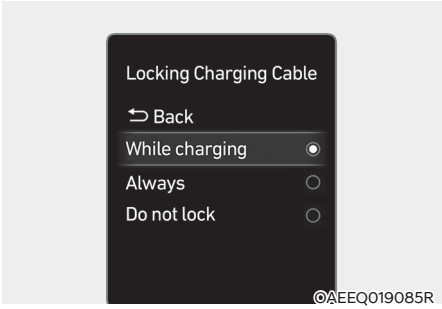
- When scheduled charging is set and the AC charger or the portable charger (ICCB: In-Cable Control Box) is connected for charging, the indicator lamp in the middle blinks (for 3 minutes) to indicate that scheduled charging is set.
- When scheduled charging is set, charging is not initiated immediately when the AC charger or portable charger (ICCB: In-Cable Control Box) is connected. When immediate charging is required, use the infotainment system to deactivate the scheduled charge setting or press scheduled charging deactivation (OFF) button.



- If you press the scheduled charging deactivation (OFF) button to immediately charge the battery, charging must be initiated 3 minutes after the charging cable has been connected. When you press the scheduled charging deactivation (OFF) button for immediate charging, the scheduled charge setting is not completely deactivated. If you need to completely deactivate the scheduled charge setting, use the infotainment system to finalize the deactivation.

Refer to “AC Charge (Station) or Trickle Charge” for details about connecting the AC charger and the portable charger (ICCB: In-Cable Control Box).

Charging Connector Lock



You may select when the charging connector can be locked and unlocked in the charging inlet.

The driver can select the charge connector lock mode from the User Settings in the cluster display by selecting 'User Settings → Convenience → Locking Charging Cable'.

When the Charging Connector is Locked

	While charging	Always	Do not lock (if equipped)
Before charging	X	O	X
While charging	O	O	X
Finished charging	X	O	X

Always mode

The connector locks when the charging connector is plugged into the charging inlet. The connector is locked until all doors are unlocked by the driver. This mode can be used to prevent charging cable theft.

- If the charging connector is unlocked when all doors are unlocked, but the charging cable is not disconnected within 15 seconds, the connector will be automatically locked again.
- If the charging connector is unlocked when all doors are unlocked, but all doors are locked again, immediately, the connector will be automatically locked again.

While charging mode

The connector locks when charging starts. The connector unlocks when charging is complete. This mode can be used when charging in a public charging station.

Do not lock mode (if equipped)

The connector unlocks regardless of the state of charging.

Press the charging connector release button, disconnect the connector.

Be careful to theft of the charging cable.

Charging Precautions

■ AC Charger



OLFP0Q5007K

Actual charger image and charging method may vary in accordance with the charger manufacturer.

WARNING

- **Electromagnetic waves that are generated from the charger can seriously impact medical electric devices such as an implantable cardiac pacemaker.**

  When using medical electric devices such as an implantable cardiac pacemaker, make sure to ask the medical team and manufacturer whether charging your electric vehicle will impact the operation of the medical electric devices such as an implantable cardiac pacemaker.
- **Check to make sure there is no water or dust on the charging cable connector and plug before connecting to the charger and charging inlet. Connecting while there is water or dust on the charging cable connector and plug may cause a fire or electric shock.**
- **Be careful not to touch the charging connector, charging plug, and the charging inlet when connecting the cable to the charger and the charging inlet on the vehicle.**
- **Comply with the following in order to prevent electrical shock when charging:**
  - **Use a waterproof charger.**
  - **Be careful when touching the charging connector and charging plug with your hands wet, or when standing in water or snow while connecting the charging cable.**
  - **Be careful when there is lightning.**
  - **Be careful when the charging connector and plug is wet.**
- **Immediately stop charging when you find abnormal symptoms (odor, smoke).**
- **Replace the charging cable if the cable coating is damaged to prevent electrical shock.**
- **When connecting or removing the charging cable, make sure to hold the charging connector handle and charging plug.**

  If you pull the cable itself (without using the handle), the internal wires may disconnect or get damaged. This may lead to electric shock or fire.

CAUTION

- **Always keep the charging connector and charging plug in clean and dry condition. Be sure to keep the charging cable in a condition where there is no water or moisture.**
- **Make sure to use the designated charger for charging the electric vehicle. Using any other charger may cause failure.**
- **Before charging the battery, turn the vehicle OFF**
- **When the vehicle is switched OFF while charging, the cooling fan inside the motor compartment may automatically operate. Do not touch the cooling fan while charging.**
- **Be careful not to drop the charging connector. The charging connector can be damaged.**

WARNING

- **Immediately stop charging when you find abnormal symptoms (odor, smoke).**
- **Replace the charging cable if the cable coating is damaged to prevent electrical shock.**
- **When connecting or removing the charging cable, make sure to hold the charging connector handle and charging plug.**

  If you pull the cable itself (without using the handle), the internal wires may disconnect or get damaged. This may lead to electric shock or fire.

CAUTION

- **Always keep the charging connector and charging plug in clean and dry condition. Be sure to keep the charging cable in a condition where there is no water or moisture.**
- **Before charging the battery, turn the vehicle OFF.**
- **When the vehicle is switched OFF while charging, the cooling fan inside the motor compartment may automatically operate. Do not touch the cooling fan while charging.**
- **Be careful not to drop the charging connector. The charging connector can be damaged.**

Precautions for AC and portable charger charging

1. After opening the charging door, check the charging symbol at the bottom of the warning label
2. Check the charging connector symbol of the AC and Trickle charger cable
3. After checking the alphabet letter of the charging symbol, proceed the charging step (Refer to Electric charging label symbol table in this chapter).

WARNING

Risks of failure, fire, injury, etc. are expected when using the charging connector with unmatched symbol.

Electric Charging Label

■ Plug in Hybrid



ONX4PHQ012032N

1. Warning for high voltage
2. Caution
3. Charging voltage and current

WARNING

Risks of failure, fire, injury, etc. are expected when using the charging connector with unmatched symbol.

AC Charge

■ AC Charger



Actual charger image and charging method may vary in accordance with the charger manufacturer.

How to Connect AC Charger

1. Depress the brake pedal and apply the parking brake.
2. Turn OFF all switches, shift to P (Park), and turn OFF the vehicle.

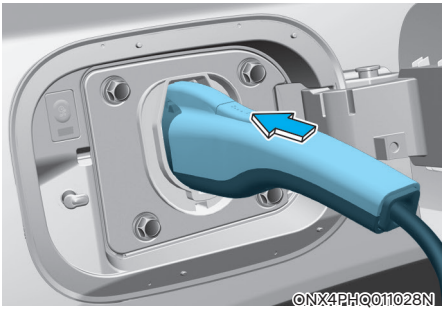


3. Press center edge of the charging door to open the charging door.

Information

If the charging door does not open because ice has formed around it, tap lightly or push on the door to break the ice and release the door. Do not pry on the door. If necessary, spray around the door with an approved deicer fluid (do not use radiator antifreeze) or move the vehicle to a warm place and allow the ice to melt.

4. Check if there is dust on the charging connector and charging inlet.



5. Hold the charging connector handle and connect it to the vehicle AC charging inlet. Push the connector until you hear a “clicking” sound. If the charging connector and charging terminal are not connected properly, this may cause a fire.

Information

Charging connector AUTO/LOCK mode

The charging connector is locked in the inlet at a different period according to which mode is selected.

- **LOCK mode : The connector locks when the charging connector is plugged into the charging inlet.**
- **AUTO mode : The connector locks when charging starts.**

For more details, refer to “Charging Connector AUTO/ LOCK Mode” in this chapter.

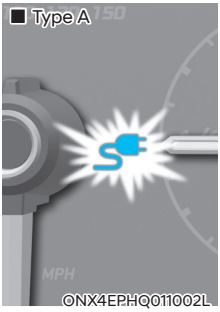
■ AC Charger



OLFP0Q5007K

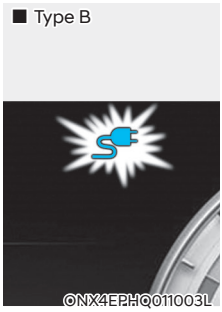
6. Connect the charging plug to the electric outlet at a AC charging station to start charging.

■ Type A



ONX4EPHQ011002L

■ Type B



ONX4EPHQ011003L

7. Check if the charging indicator light of the high voltage battery on the instrument cluster is turned ON. Charging is not done when the charging indicator lamp is OFF.

   When the charging connector and charging plug are not connected properly, reconnect the charging cable to charge.

Information

- **Even though charging is possible with the ignition switch in the ON/START position, for your safety, start charging when the ignition switch is in the LOCK/OFF position and the vehicle shifted to P (Park). After charging has started, you can use electrical components such as the radio by placing the ignition switch in the ACC or ON position.**
- **During AC charging, the radio reception may be bad.**
- **Moving the shift button from P (Park) to R (Reverse)/N(Neutral)/D (Drive) stops the charging process.**

  To restart the charging process, move the shift button to P (Park), place the ignition switch to the LOCK/OFF position, and disconnect the charging cable. Then, connect the charging cable.



8. After charging has started, the estimated charging time is displayed on the instrument cluster for about 1 minute.

   If you open the driver seat door while charging, the estimated charging time is also displayed on the instrument cluster for about 1 minute.

   When scheduled charging is set, the estimated charging time is displayed as “--” .

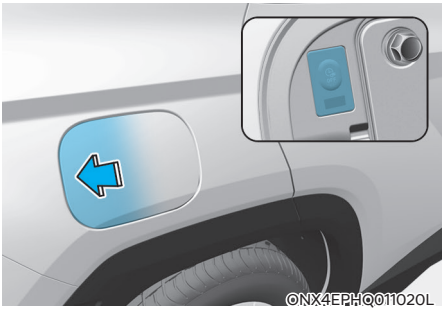
Information

Depending on the condition and durability of the high voltage battery, charger specifications, and ambient temperature, the time required for charging the battery may vary.

Information

To control the temperature of the high voltage battery while charging or when the battery temperature is high, the air conditioner is used to cool down the battery. It may generate noise or vibration from operation of the air conditioner compressor and cooling fan, but it is a normal condition when charging the high voltage battery. Also, the air conditioner’s performance may be degraded due to operation of the cooling system to charge the high voltage battery. This is a normal condition.

Checking Charging Status



When charging the high voltage battery, the charge level can be checked from outside the vehicle.

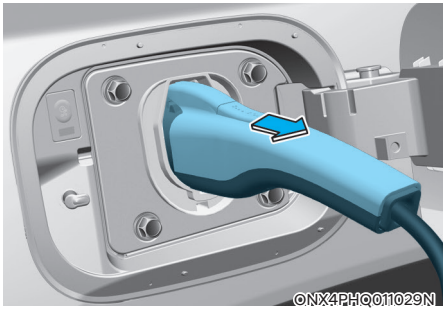
Classification		Details		Operation of charging indicator lamp	
Mode	Status			Charging inlet	Charging button
A	READY	Non-charging state	0 ~ 65 %	On (Yellow)	Off
			65 ~ 100 %	On (Green)	Off
B	Aux. Battery Saver / High voltage warning	Charging the 12 V auxiliary battery / High voltage warning state		On (Red)	Off
C	Charging	Charging	0 ~ 65 %	Blinking (Yellow)	Off
			65 ~ 100 %	Blinking (Green)	Off
D	Charging complete	Charging completed (turns off in 5 seconds)	100 %	On (Green) → OFF	Off
E	Charging failed	Error while charging		Blinking (Red)	Off
F	Scheduled charging standby	Reserved charging is operating (turns OFF after 3 minutes)		Off	ON
G	Error	CAN communication error status		On (Green) → On (Orange) → On (Red)	Off

How to Disconnect AC Charger

■ AC Charger



1. When charging is complete, remove the charging plug from the electrical outlet of the AC charging station.



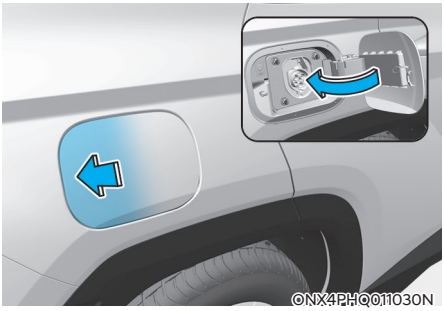
2. Hold the charging connector handle and pull it while pressing the release button.

Information

To prevent charging cable theft, the charging connector cannot be disconnected from the inlet when the doors are locked. Unlock all doors to disconnect the charging connector from the inlet.

However, if the vehicle is in the charging connector AUTO mode, the charging connector automatically unlocks from the inlet when charging is completed.

For more details, refer to "Charging Connector AUTO/ LOCK Mode" in this chapter.

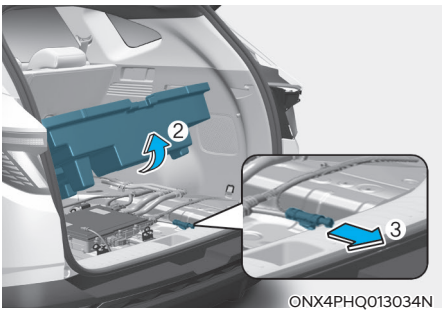


3. Make sure to completely close the charging door.

✳ The charging door dose not have a locking system.

Unlock Charging Connector in Emergency



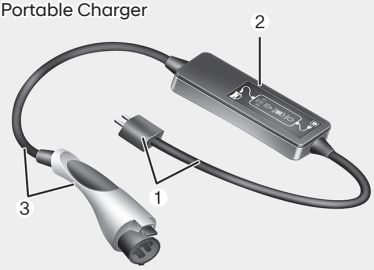


If the charging connector does not disconnect due to battery discharge and electric wire failure, perform the following:

1. Open the liftgate.
2. Lift the luggage tray cover by the handle (1).
3. Raise the luggage tray (2).
4. Gently pull the emergency cable (3) to disconnect the charging connector.

Trickle Charge (Type A)

■ Portable Charger



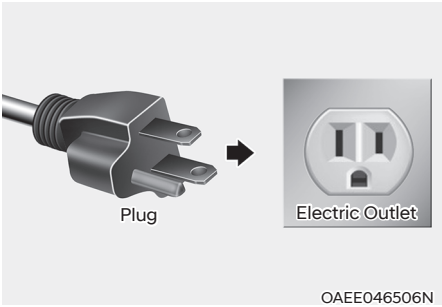
(1) Code and Plug (Code set)

(2) Control Box

(3) Charging Cable and Charging Connector

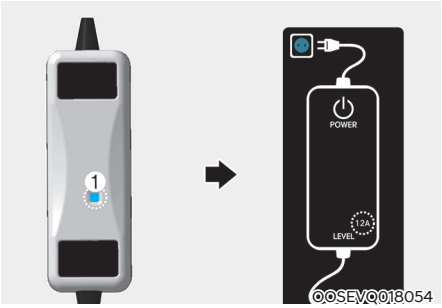
Portable Charge can be used when AC Charge is not available by using household electricity.

How to set the charging rate of the portable charger



Charging a plug-in hybrid vehicle at home can stress the household electrical system more than a typical household appliance. Most modern residential electrical circuits are rated at 15 or 20 amps. The portable charger is rated to supply a 12A continuous load. To avoid tripping a fuse or breaker in the household, the portable charger charging rate can be reduced. Follow the steps below to set the charging rate of the portable charger.

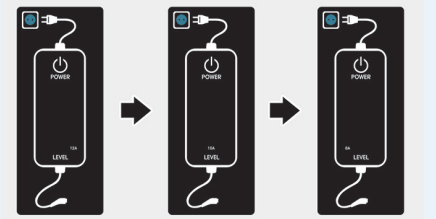
1. Check the current output of the electrical outlet prior to connecting the portable charger in order to determine the permissible charging rate.
2. Connect the plug to a household electric outlet.
3. Check the LED display on the portable charger controller. The indicator 8A, 10A or 12A will be displayed.



4. The charging rate (amps) can be adjusted on the portable charger controller. Press the button (1) on the back of the controller.
5. The charging rate (12A, 10A, 8A) on the LED display changes each time you press the button. Refer to the table to adjust the charging rate based on the electrical outlet current output.
6. When the charging rate is set, follow the procedure in the next section to connect your vehicle.

✳ Example for setting the ICCB charge level

The example is only for reference and may vary according to the surrounding environment.

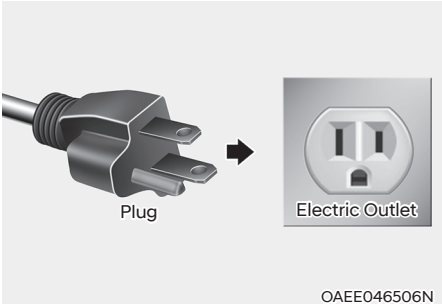
Outlet current	ICCB charge level	Control box display window
14-16A	12A	
13-12A	10A	
11-10A	8A	

OOSEVQ018055

CAUTION

Please make sure that charge level selection matches the capacity of your circuit breaker to avoid blown fuse.

How to Connect Portable Charger (ICCB: In-Cable Control Box)



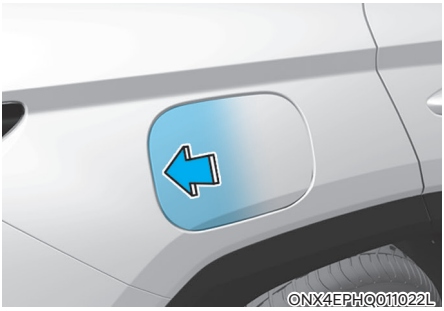
1. Connect the plug to a household electric outlet.



2. Check if the power lamp (green) illuminates on the controller.
3. Depress the brake pedal and apply the electronic parking brake.
4. Turn OFF all switches, shift to P (Park), and turn OFF the vehicle.

Information

If charging is initiated without the gear in P (Park), charging will start only after the gear is automatically shifted to P (Park).



5. Press center edge of the charging door to open the charging door.

Information

If you cannot open the charging door due to freezing weather tap lightly or remove any ice near the charging door. Do not try to forcibly open the charging door.

6. Open the protection caps of the charging connector and the charging plug. Check if there are any foreign substances or dust.
7. Hold the charging connector handle and connect it to the vehicle charging inlet. Push the connector all the way in. If the charging connector and charging terminal are not connected properly, this may cause a fire.

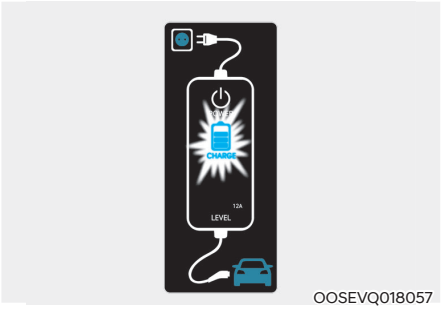
Information

Charging connector AUTO/LOCK mode

The charging connector is locked in the inlet at a different period according to which mode is selected.

- **LOCK mode : The connector locks when the charging connector is plugged into the charging inlet.**
- **AUTO mode : The connector locks when charging starts.**

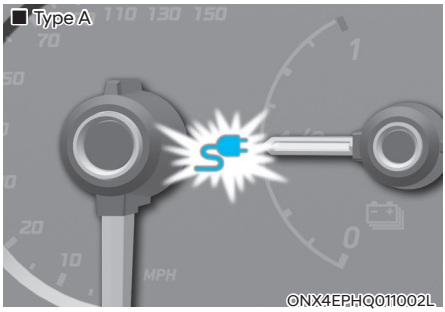
For more details, refer to “Charging Connector AUTO/ LOCK Mode” in this chapter.



OOSEVQ018057

8. Charging starts automatically (charging lamp blinks).

■ Type A



ONX4EPHQ011002L

■ Type B



ONX4EPHQ011003L

9. Check if the charging indicator light ( ) of the high voltage battery in the instrument cluster is turned ON. Charging is not active when the charging indicator light ( ) is OFF.

   When the charging connector is not connected properly, reconnect the charging cable to charge it again.

Information

To control the temperature of the high voltage battery while charging or when the battery temperature is high, the air conditioner is used to cool down the battery. It may generate noise or vibration from operation of the air conditioner compressor and cooling fan, but it is a normal condition when charging the high voltage battery. Also, the air conditioner's performance may be degraded due to operation of the cooling system to charge the high voltage battery. This is a normal condition.

Information

Even though charging is possible with the Start/Stop button in the ON/START position, for you safety, start charging when the Start/Stop button is in the OFF position and the vehicle shifted to P (Park). After charging has started, you can use electrical components such as the radio by pressing the Start/Stop button to the START or ON position.

During charging, the gear cannot be shifted from P (Park) to any other gear.



OAEPHQ049818L

10. After charging has started, the estimated charging time is displayed on the instrument cluster for about 1 minute.

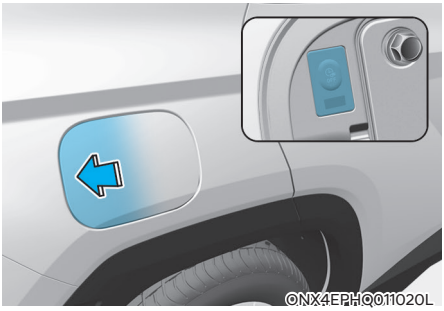
    If you open the driver seat door while charging, the estimated charging time is also displayed on the instrument cluster for about 1 minute.

    When scheduled charging is set, the estimated charging time is displayed as "--" .

Information

Depending on the condition and durability of the high voltage battery, charger specifications, and ambient temperature, the time required for charging the battery may vary.

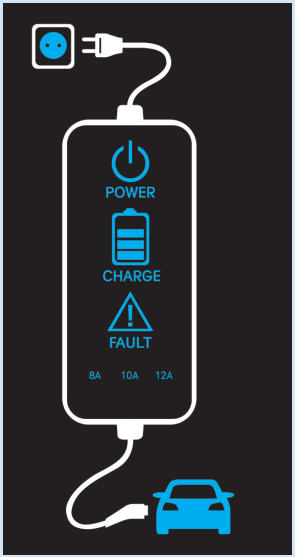
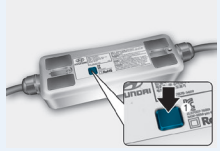
Checking Charging Status



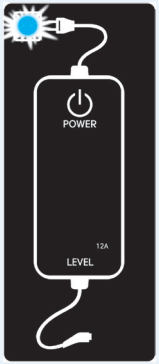
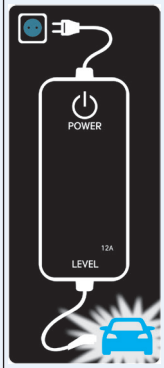
When charging the high voltage battery, the charge level can be checked from outside the vehicle.

Classification		Details		Operation of charging indicator lamp	
Mode	Status			Charging inlet	Charging button
A	READY	Non-charging state	0 ~ 65 %	On (Yellow)	Off
			65 ~ 100 %	On (Green)	Off
B	Aux. Battery Saver / High voltage warning	Charging the 12 V auxiliary battery / High voltage warning state		On (Red)	Off
C	Charging	Charging	0 ~ 65 %	Blinking (Yellow)	Off
			65 ~ 100 %	Blinking (Green)	Off
D	Charging complete	Charging completed (turns off in 5 seconds)	100 %	On (Green) → OFF	Off
E	Charging failed	Error while charging		Blinking (Red)	Off
F	Scheduled charging standby	Reserved charging is operating (turns OFF after 3 minutes)		Off	ON
G	Error	CAN communication error status		On (Green) → On (Orange) → On (Red)	Off

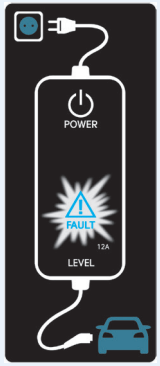
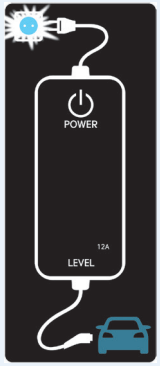
Charging Status Indicator Lamp for Portable Charger

<table>
<tr><th>Control Box</th><th colspan="2">Indicator</th><th colspan="3">Details</th></tr>
<tr><td rowspan="9">
</td><td rowspan="2">PLUG</td><td>(Green)</td><td colspan="3">On : Power on
Blink : Plug temperature sensor failure</td></tr>
<tr><td>(Red)</td><td colspan="3">On : Plug high temperature protection
Blink : Plug high temperature warning</td></tr>
<tr><td>POWER</td><td>POWER</td><td colspan="3">On : Power on</td></tr>
<tr><td>CHARGE</td><td>CHARGE</td><td colspan="3">Blink : Charging in power saving mode, only the CHARGE indicator is illuminated.</td></tr>
<tr><td>FAULT</td><td>FAULT</td><td colspan="3">Blink : Charging interrupted</td></tr>
<tr><td rowspan="3">CHARGE LEVEL</td><td>12A</td><td>Charging current 12 A</td><td rowspan="3">The charging current changes (3 level) whenever the button (1) is pressed for 1 sec with the charger plugged into an electrical outlet but not the vehicle.</td><td rowspan="3">✳ Back of the control box
</td></tr>
<tr><td>10A</td><td>Charging current 10 A</td></tr>
<tr><td>8A</td><td>Charging current 18 A</td></tr>
<tr><td rowspan="3">VEHICLE</td><td>(Green)</td><td colspan="3">Charging connector plugged</td></tr>
<tr><td>(Blue)</td><td colspan="3">Charging</td></tr>
<tr><td>(Red)</td><td colspan="3">Blink : Charging impossible</td></tr>
</table>

Charging Status Indicator Lamp for Portable Charger

NO	Control Box	Status / Diagnosis / Countermeasure	NO	Control Box	Status / Diagnosis / Countermeasure
1		• Charging connector plugged into vehicle (Green ON) • Plug temperature sensor failure (Green blink) • Plug high temperature protection (Red blink) • Plug high temperature warning (Red ON) Contact an authorized HYUNDAI dealer.	2		- Charging connector plugged into vehicle (Green ON)
3		- While charging • Charge indicator (Green blink) • Vehicle indicator (Blue ON)	4		- Before plugging charging connector into vehicle (Red blink) • Abnormal temperature • ICCB (In-Cable Control Box) failure Contact an authorized HYUNDAI dealer.

Charging Status Indicator Lamp for Portable Charger

NO	Control Box	Status / Diagnosis / Countermeasure	NO	Control Box	Status / Diagnosis / Countermeasure
5		- Plugged into vehicle (Red blink) • Diagnostic device failure • Current leakage • Abnormal temperature Contact an authorized HYUNDAI dealer.	6		- After plugging charging connector into vehicle (Red blink) • Communication failure Contact an authorized HYUNDAI dealer.
7		• Plug temperature sensor failure (Green blink) • Plug high temperature protection (Red blink) • Plug high temperature warning (Red ON) Contact an authorized HYUNDAI dealer.	8		- Power saving mode • 3 minutes after charging starts (Green blink)

How to Disconnect Portable Charger (ICCB: In-Cable Control Box)

1. Hold the charging connector handle and pull it out.

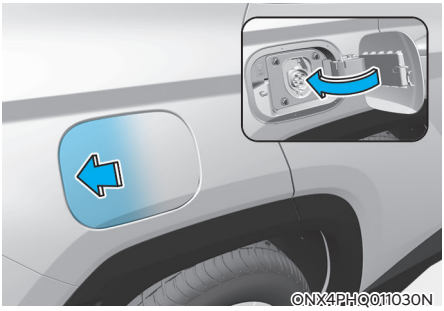
Information

To prevent charging cable theft, the charging connector cannot be disconnected from the inlet when the doors are locked or the charging connector is in the LOCK mode. Unlock all doors to disconnect the charging connector from the inlet.

However, if the vehicle is in the charging connector AUTO mode, the charging connector automatically unlocks from the inlet when charging is completed.

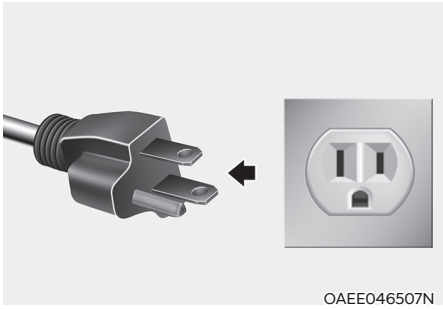
If the charging connector is disconnected while the release button is not pressed, the connector and the inlet may be damaged.

For more details, refer to "Charging Connector AUTO/ LOCK Mode" in this chapter.



2. Make sure to completely close the charging door.

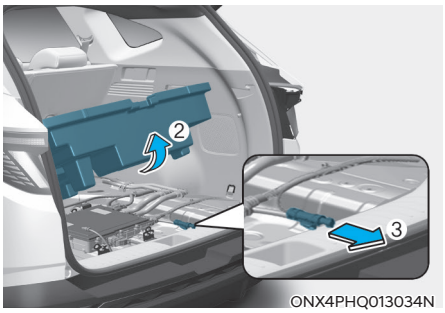
* The charging door dose not have a locking system.



3. Disconnect the plug from the household electric outlet. Do not pull the cable when disconnecting the plug.
4. Close the protection caps of the charging connector and the charging plug to protect them from foreign substances.
5. If the personal charging connector is used, store the connector in the cable compartment.

Unlock Charging Connector in Emergency





If the charging connector does not disconnect due to battery discharge and electric wire failure, perform the following:

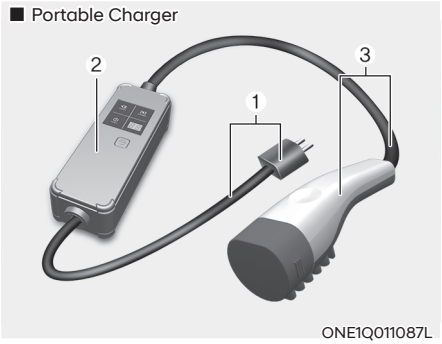
1. Open the liftgate.
2. Lift the luggage tray cover by the handle (1).
3. Raise the luggage tray (2).
4. Gently pull the emergency cable (3) to disconnect the charging connector.

Precautions When Using the Portable Charger

- Use the portable charger that is certified by HYUNDAI.
- Do not try to repair, disassemble, or adjust the portable charger.
- If an extension cord is used it must be rated for heavy duty of at least 15A. Keep as short as possible.
- Stop using immediately when failure occurs.
- Do not touch the plug and charging connector with wet hands.
- Do not touch the terminal part of the AC charging connector and the AC charging port on the vehicle.
- Do not connect the charging connector to voltage that does not comply with regulations.
- Do not use the portable charger if it is worn, if any of the wiring is exposed, or if there are any signs of damage to the cable or connector.
- Do not let children operate or touch the portable charger.
- Do not let the controller to be in contact with water.
- Keep the normal charging connector or plug terminal free of foreign substances.
- Do not step on the cable or cord. Do not pull the cable or cord and do not twist or bend it.
- Do not attempt to charge the vehicle outside during inclement weather when there is the possibility of lightning.
- Do not drop the controller or place heavy objects on the equipment.
- Do not place an object that can generate high temperatures near the charger when charging.
- Before plugging into any electrical outlet, have a qualified electrician inspect and verify the household electrical system for heavy duty service at a 12 amp continuous load.
- Stop using the portable charger immediately if the household electric outlet or any components becomes overheated or has a burning smell.

Trickle Charge (Type B)

■ Portable Charger

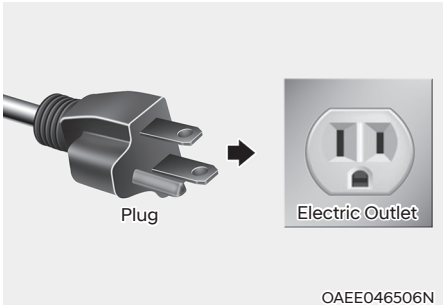


ONE1Q011087L

(1) Code and Plug (Code set)
(2) Control Box
(3) Charging Cable and Charging Connector

Trickle charge can be used when AC charge is not available by using household electricity.

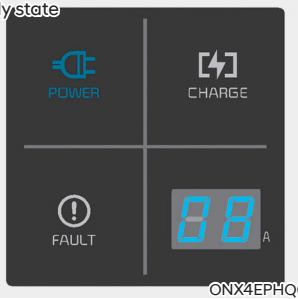
How to set the charge level of the portable charger



OAEE046506N

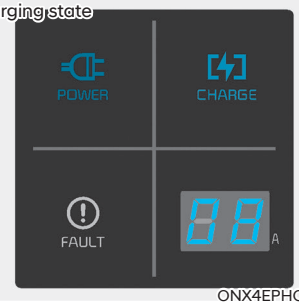
1. Check the rated current of the electric outlet prior to connecting the plug to the outlet.
2. Connect the plug to a household electric outlet.
3. Check the display window on the control box.

■ Ready state



ONX4EPHQ011005L

■ Charging state



ONX4EPHQ011006L



ONX4EPHQ011024L

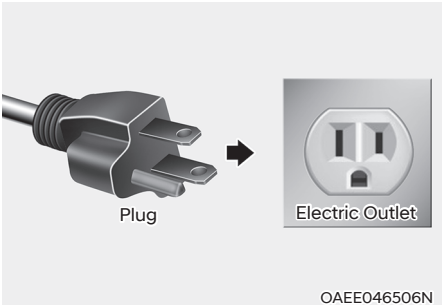
4. In ready or charging state where the Fault indicator does not blink, press the button (1) on the control box for more than 2 seconds to adjust the charge level. (Refer to charging cable type and example for setting the charge level.)
5. The display window on the control box changes From 6A and 8A and 10A to 12A every time you press the button (1).
6. When the charge level you want is displayed in the display window, press the button (1) on the control box for more than 1 second to apply the desired charge level. If you do not press the button within 10 seconds, it will return to the previously set charge level.
7. When setting the charge level is complete, start charging according to the trickle charge procedure.

✳ Example for setting the ICCB charge level (The example is only for reference and may vary according to the surrounding environment.)

Outlet current	ICCB charge level	Control box display window
14-16A	12A	
13-12A	10A	
11-10A	8A	
9-8A	6A	

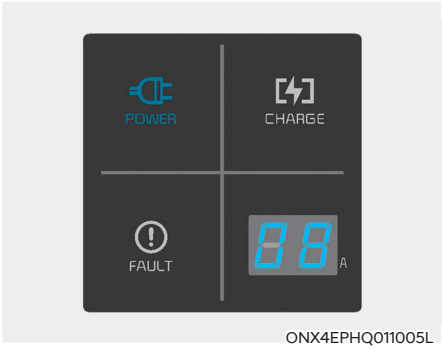
ONX4EPHQ011007L

How to Connect Portable Charger (ICCB: In-Cable Control Box)



OAEE046506N

1. Connect the plug to a household electric outlet.



ONX4EPHQ011005L

2. Check if the power lamp (green) illuminates on the control box.
3. Depress the brake pedal and apply the parking brake.
4. Turn OFF all switches, shift to P (Park), and turn OFF the vehicle.



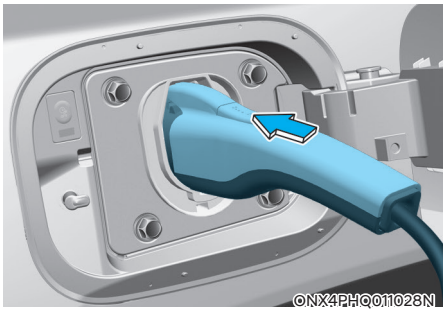
ONX4EPHQ011022L

5. Press center edge of the charging door to open the charging door.

Information

If the charging door does not open because ice has formed around it, tap lightly or push on the door to break the ice and release the door. Do not pry on the door. If necessary, spray around the door with an approved deicer fluid (do not use radiator antifreeze) or move the vehicle to a warm place and allow the ice to melt.

6. Check if there is dust on the charging connector and charging inlet.



ONX4EPHQ011028N

7. Hold the charging connector handle and connect it to the vehicle AC charging inlet. Push the connector until you hear a “clicking” sound. If the charging connector and charging terminal are not connected properly, this may cause a fire.

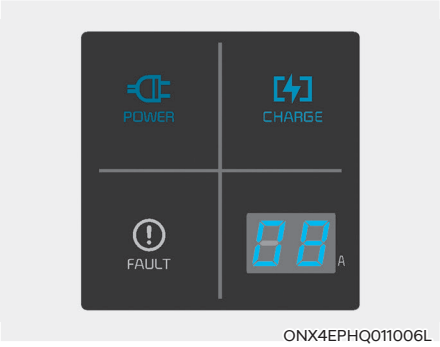
Information

Charging connector AUTO/LOCK mode

The charging connector is locked in the inlet at a different period according to which mode is selected.

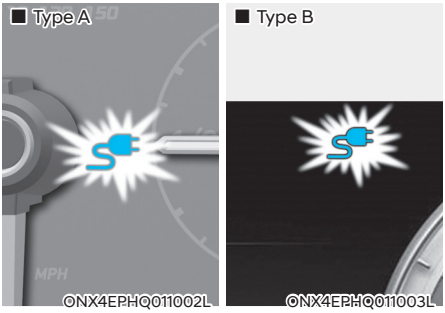
- **LOCK mode : The connector locks when the charging connector is plugged into the charging inlet.**
- **AUTO mode : The connector locks when charging starts.**

For more details, refer to "Charging Connector AUTO/ LOCK Mode" in this chapter.



ONX4EPHQ011006L

8. Charging starts automatically (charging lamp blinks).



ONX4EPHQ011002L ONX4EPHQ011003L

9. Check if the charging indicator light of the high voltage battery on the instrument cluster is turned ON. Charging is not done when the charging indicator lamp is OFF.

   When the charging connector is not connected properly, reconnect the charging cable to charge it again.

Information

- **Even though charging is possible with the ignition switch in the ON/START position, for your safety, start charging when the ignition switch is in the LOCK/OFF position and the vehicle shifted to P (Park).**

  After charging has started, you can use electrical components such as the radio by placing the ignition switch in ACC or ON position.
- **Moving the shift button from P (Park) to R (Reverse)/N(Neutral)/D (Drive) stops the charging process.**

  To restart the charging process, move the shift button to P (Park), place the ignition switch to the LOCK/OFF position, and disconnect the charging cable. Then, connect the charging cable.



10. After charging has started, the estimated charging time is displayed on the instrument cluster for about 1 minute.

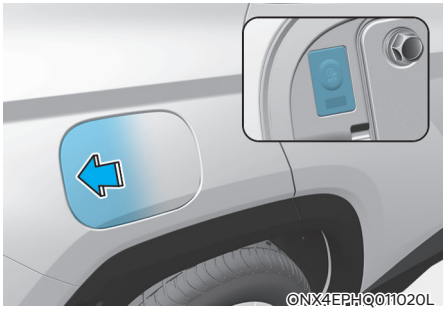
    If you open the driver seat door while charging, the estimated charging time is also displayed on the instrument cluster for about 1 minute.

    When scheduled charging is set, the estimated charging time is displayed as “--” .

Information

Depending on the condition and durability of the high voltage battery, charger specifications, and ambient temperature, the time required for charging the battery may vary.

Checking Charging Status

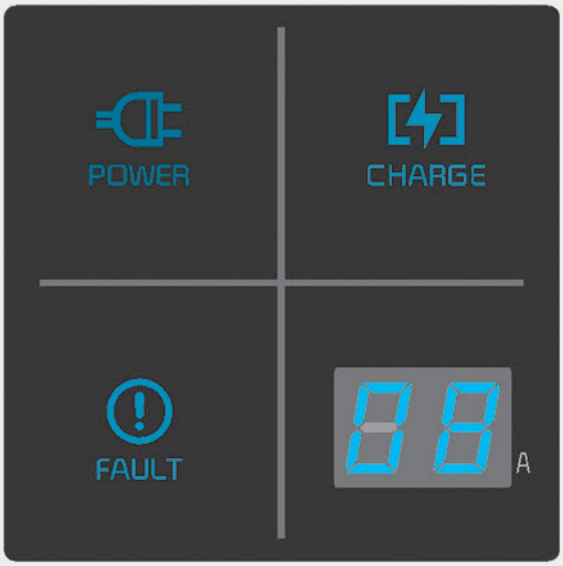


When charging the high voltage battery, the charge level can be checked from outside the vehicle.

Classification		Details		Operation of charging indicator lamp	
Mode	Status			Charging inlet	Charging button
A	READY	Non-charging state	0 ~ 65 %	On (Yellow)	Off
			65 ~ 100 %	On (Green)	Off
B	Aux. Battery Saver / High voltage warning	Charging the 12V auxiliary battery / High voltage warning state		On (Red)	Off
C	Charging	Charging	0 ~ 65 %	Blinking (Yellow)	Off
			65 ~ 100 %	Blinking (Green)	Off
D	Charging complete	Charging completed (turns off in 5 seconds)	100 %	On (Green) → OFF	Off
E	Charging failed	Error while charging		Blinking (Red)	Off
F	Scheduled charging standby	Reserved charging is operating (turns OFF after 3 minutes)		Off	ON
G	Error	CAN communication error status		On (Green) → On (Orange) → On (Red)	Off

Charging Status Indicator Lamp for Portable Charger

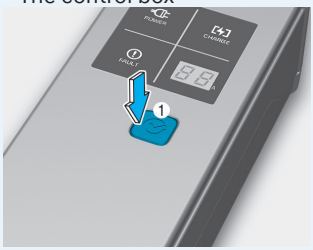
■ Control Box



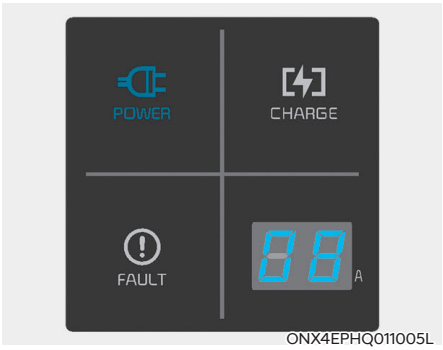
ONX4EPHQ011008L

Indicator		Details
POWER		On : Power on
CHARGE		On : Charge Blink : Current limit due to high plug temperature or high internal temperature
FAULT		Blink : Error while charging

Indicator		Details		
Error code		On : Error while charging/ Error during self-diagnosis		
		Error code	Item	Cause
		E1	CP communication	Vehicle communication error
		E2	Leakage	Current leakage
		E3		Charger error
		E4	Plug temperature	Plug overtemperature warning
		E5		Plug temperature failure
		E6		Charger error
		E7	Overcurrent	Charging overcurrent warning
		E8	Internal temperature	Charger overheating
		E9		Charger error
		F1	Relay fusion	Charger error
		F2	GM/I	Poor grounding of outlet
		F3	SMPS Power failure	SMPS error (voltage failure)
		F4		SMPS error (abnormal voltage)
		F5	CP voltage error	CP (-) voltage error
		F6		CP (+) voltage error
		F7	Temperature sensor error	Plug temperature sensor error
		F8		PCB internal temperature sensor error

<table>
<tr><th colspan="2">Indicator</th><th colspan="3">Details</th></tr>
<tr><td rowspan="4">CHARGE LEVEL</td><td></td><td>Type A</td><td>Type B</td><td>Type C</td></tr>
<tr><td></td><td>12 A</td><td>10 A</td><td>8 A</td></tr>
<tr><td></td><td>10 A</td><td>8 A</td><td>7 A</td></tr>
<tr><td></td><td>8 A</td><td>6 A</td><td>6 A</td></tr>
<tr><td colspan="4">The charging current changes whenever the button (1) is pressed for less than 1 sec with the charger plugged into an electrical outlet but not the vehicle.</td><td>* The control box

ONX4EPHQ011024L</td></tr>
</table>

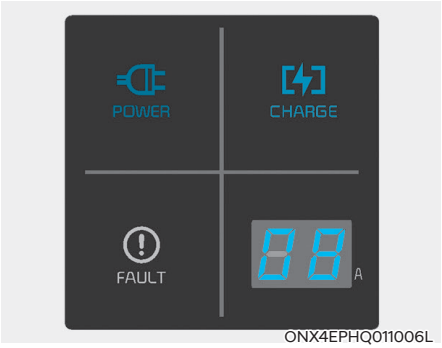
Status / Diagnosis / Countermeasure



ONX4EPHQ011005L

- Charging connector plugged into vehicle (Power indicator : green ON)
- Plug connected to an electric outlet (Power indicator : green ON)

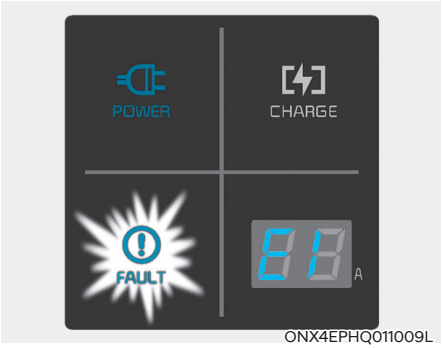
Contact an authorized HYUNDAI dealer.



ONX4EPHQ011006L

While charging (Power indicator : green ON, Charge indicator :blue ON)

Contact an authorized HYUNDAI dealer.

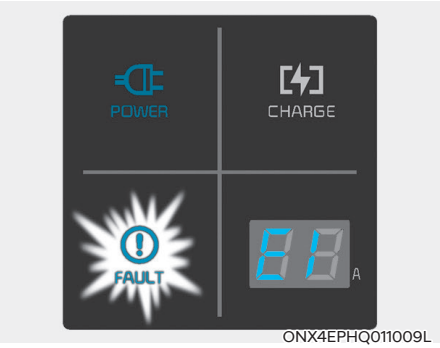


ONX4EPHQ011009L

Before plugging charging connector into vehicle (Power indicator : green ON, Fault indicator : red blink)

- Abnormal temperature
- ICCB (In-Cable Control Box) failure

Contact an authorized HYUNDAI dealer.

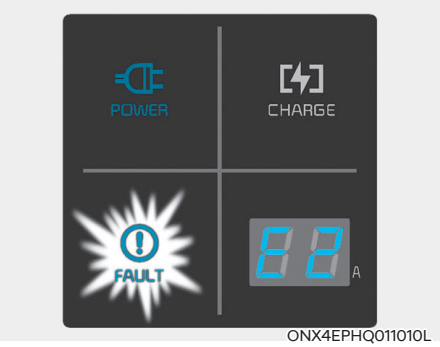


ONX4EPHQ011009L

Plugged into vehicle (Power indicator : green ON, Fault indicator : red blink)

- Diagnostic device failure
- Current leakage
- Abnormal temperature

Contact an authorized HYUNDAI dealer.



ONX4EPHQ011010L

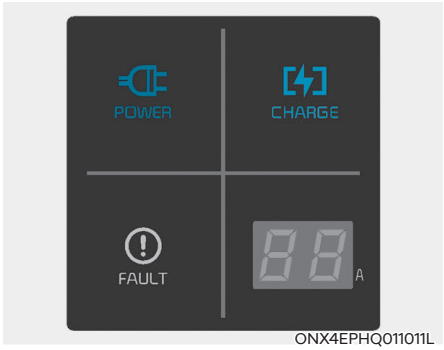
A leakage current occurs with “E2” error code (Power indicator : green ON, Fault indicator : red blink, E2 displayed)

Contact an authorized HYUNDAI dealer.



ONX4EPHQ011024L

After disconnecting and reconnecting the power plug, the error is cleared by pressing the button (1) for 2 seconds or longer. If this doesn’t clear the error, Contact an authorized HYUNDAI dealer.



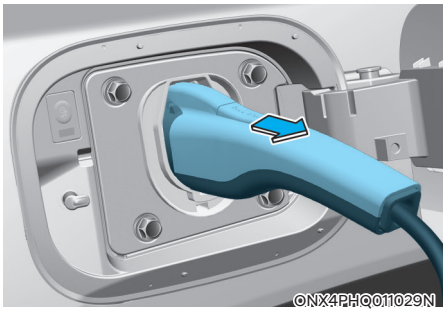
ONX4EPHQ011011L

Power saving mode

- Charge level display window turns off when the status is not changed for more than 1 minute

Contact an authorized HYUNDAI dealer.

How to Disconnect Portable Charger (ICCB: In-Cable Control Box)



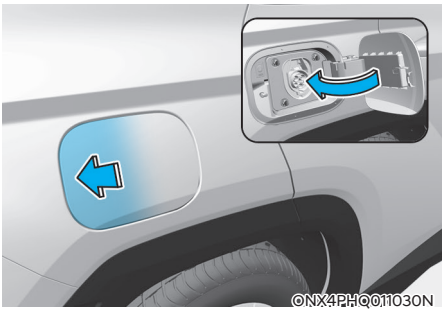
1. Hold the charging connector handle and pull it while pressing the release button.

Information

To prevent charging cable theft, the charging connector cannot be disconnected from the inlet when the doors are locked. Unlock all doors to disconnect the charging connector from the inlet.

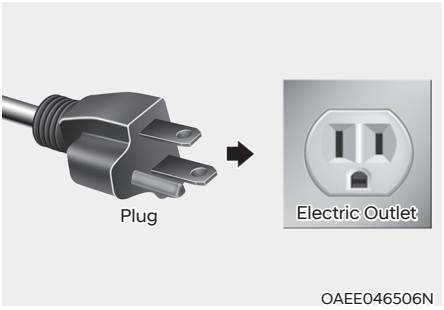
However, if the vehicle is in the charging connector AUTO mode, the charging connector automatically unlocks from the inlet when charging is completed.

For more details, refer to "Charging Connector AUTO/ LOCK Mode" in this chapter.



2. Make sure to completely close the charging door.

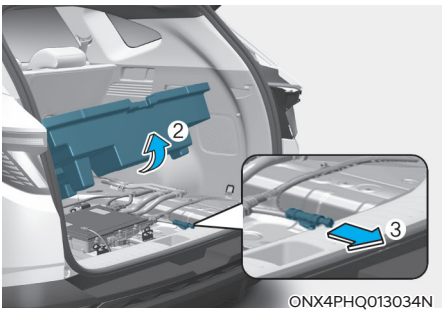
✳ The charging door dose not have a locking system.



3. Disconnect the plug from the household electric outlet. Do not pull the cable when disconnecting the plug.
4. Close the protective cover for the charging connector so that foreign material cannot get into the terminal.
5. Put the charging cable inside the cable compartment to protect it.

Unlock Charging Connector in Emergency





If the charging connector does not disconnect due to battery discharge and electric wire failure, perform the following:

1. Open the liftgate.
2. Lift the luggage tray cover by the handle (1).
3. Raise the luggage tray (2).
4. Gently pull the emergency cable (3) to disconnect the charging connector.

Precautions for Portable Charger (ICCB: In-Cable Control Box)

- Use the portable charger that is certified by HYUNDAI Motors.
- Do not try to repair, disassemble, or adjust the portable charger.
- Do not use an extension cord or adapter.
- Stop using immediately when failure occurs.
- Do not touch the plug and charging connector with wet hands.
- Do not touch the terminal part of the AC charging connector and the AC charging inlet on the vehicle.
- Do not connect the charging connector to voltage that does not comply with regulations.
- Do not use the portable charger if it is worn out, exposed, or there exists any type of damage on the portable charger.
- If the ICCB case and AC charging connector is damaged, cracked, or the wires are exposed in any way, do not use the portable charger.
- Do not let children operate or touch the portable charger.

- Keep the control box free of water.
- Keep the AC charging connector or plug terminal free of foreign substances.
- Do not step on the cable or cord. Do not pull the cable or cord and do not twist or bend it.
- Do not charge when there is lightning.
- Do not drop the control box or place a heavy object on the control box.
- Do not place an object that can generate high temperatures near the charger when charging.
- Charging with the worn out or damaged household electric outlet can result in a risk of electric shock. If you are in doubt to the household electric outlet condition, have it checked by a licensed electrician.
- Stop using the portable charger immediately if the household electric outlet or any components is overheated or you notice burnt odors.

Action to be Taken when Charging Stops Abruptly

When the high voltage battery does not charge, check the followings:

1. Check the charging setting for the vehicle.

   (for example, When scheduled charging is set, charging is not initiated immediately when the AC charger or portable charger (ICCB: In-Cable Control Box) is connected.)
2. Check the operation status of AC charger, portable charger.

   (Charging Status Indicator Lamp for Portable Charger, refer to “Checking Charging Status” for trickle charge in this chapter.)

   ✳ Actual method for indicating the charging status may vary in accordance with the charger manufacturer.
3. When the vehicle does not charge and a warning message appears on the cluster, check the corresponding message. Refer to “Cluster Display Messages”, in this chapter.
4. If the vehicle is properly charged when charged with another normally working charger, contact the charger manufacturer.
5. If the vehicle does not charge when charged with another normally working charger, contact an authorized HYUNDAI dealer for inspection.

DRIVING THE HYBRID VEHICLE

Starting the Vehicle

Vehicles with smart key system

1. Carry the smart key or leave it inside the vehicle.
2. Make sure the parking brake is firmly applied.
3. Make sure the shift button is in P (Park). With the shift button in N (Neutral), you cannot start the vehicle.
4. Depress the brake pedal.
5. Press the Engine Start/Stop button. If the hybrid system starts, the "" indicator will come on.

   Whether the engine is cold or warm, it should be started without depressing the accelerator.

After following the start procedures, "" indicator on the instrument cluster will turn on. For more details, please check chapter 6.

ECONOMICAL and SAFE OPERATION of Hybrid system

- Drive smoothly. Accelerate at a moderate rate and maintain a steady cruising speed. Do not make "jack-rabbit" starts. Do not race between stoplights.

  Avoid heavy traffic whenever possible. Always maintain a safe distance from other vehicles so you can avoid unnecessary braking. This also reduces brake wear out.
- The regenerative brake generates energy when the vehicle decelerates.
- When the hybrid battery power is low, the hybrid system automatically recharges the hybrid battery.
- When the engine is running with the shift button in N (Neutral), the hybrid system cannot generate electricity. The hybrid battery cannot recharge with the shift button in N (Neutral).

Information

In the hybrid system, the engine automatically runs and stops. When the hybrid system operates, the "" indicator is illuminated.

In the following situation, the engine may operate automatically.

- **When the engine is ready to run**
- **When the hybrid battery is being charged**
- **Depending on the temperature condition of the hybrid battery**

Special Features

Hybrid vehicles sound different than gasoline engine vehicles. When the hybrid system operates, you may hear a sound from the hybrid battery system under the floor. If you apply the accelerator pedal rapidly, you may hear an unconventional sound. When you apply the brake pedal, you may hear a sound from the regenerative brake system. When the hybrid system is turned off or on, you may hear a sound in the engine compartment. If you depress the brake pedal repeatedly when the hybrid system is turned on, you may hear a sound in the engine compartment. None of these sounds indicate a problem. These are normal characteristics of hybrid vehicles.

If any of following occur, it's a normal condition if you hear a motor sound in the engine compartment:

- After turning off the hybrid system, the brake pedal is released.
- When the hybrid system is turned off, the brake pedal is applied.
- When the driver door is opened.

When the hybrid system is turned ON, the gasoline engine may run or may not. In this situation, you may feel a vibration. This does not indicate a malfunction. When the "" indicator illuminates, the hybrid system is ready to begin driving. Even if the engine is off, you can operate the vehicle as long as the "" indicator is illuminated.

NOTICE

The hybrid system contains many electronic components. High voltage components, such as cables and other parts, may emit electromagnetic waves. Even when the electromagnetic cover blocks electromagnetic emissions, electromagnetic waves may have an effect on electronic devices. When your vehicle is not used for a long period of time, the hybrid system will discharge. You need to drive the vehicle several times a month. Drive at least for 1 hour or 10 miles. When the hybrid battery is discharged, or when it is impossible to jump start the vehicle, contact your authorized HYUNDAI dealer.

WARNING

- **When you start the hybrid system with the shift button in P (Parking), the "" indicator illuminates on the instrument cluster. The driver can drive the vehicle, even when the gasoline engine is off.**
- **When you leave the vehicle, you should turn OFF the hybrid system or locate the shift button in P (Park). When you depress the accelerator pedal by mistake, or when the shift button is not in P (Park), the vehicle will abruptly move, possibly resulting in serious injury or death.**

Virtual Engine Sound System (VESS)

The Virtual Engine Sound System generates engine sound for pedestrians to hear vehicle sound because there is limited sound while motor power is used.

- When the engine is running, the gear shift button is not in P (Park), the VESS will operate.
- When the gear is shifted to R (Reverse), an additional warning sound will be heard.

What does regenerative braking do?

It uses an electric motor when decelerating and when braking and transforms kinetic energy to electrical energy in order to charge the high voltage battery.

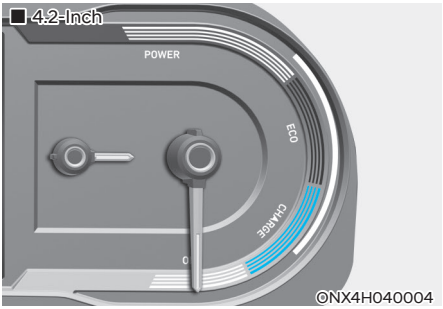
Battery

- Hybrid
  - The vehicle is composed of a high voltage battery that drives the motor and air conditioner, and an integrated 12V lead battery with the HEV battery that drives the lamps, wipers, and audio system.
  - The integrated 12V battery is automatically charged when the vehicle is in the ready () mode.
- Plug-in hybrid vehicle
  - The vehicle is composed of a high voltage battery that drives the motor and air-conditioner, and an auxiliary battery (12 V) that drives the lamps, wipers, and audio system.
  - The auxiliary battery is automatically charged when the vehicle is in the ready () mode.

Hybrid System Gauge

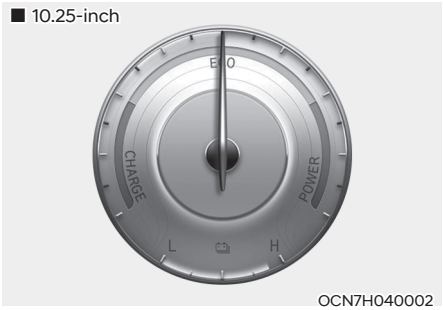
Power gauge

■ 4.2-Inch



ONX4H040004

■ 10.25-inch



OCN7H040002

The hybrid system gauge indicates whether the current driving condition is fuel efficient or not.

- CHARGE:

  Shows that the energy made by the vehicle is being converted to electrical energy. (Regenerated energy)
- ECO:

  Shows that the vehicle is being driven in an Eco-friendly manner.
- POWER:

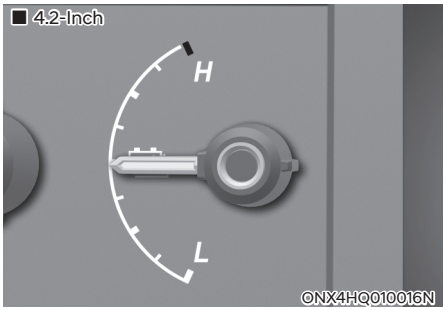
  Shows that the vehicle is exceeding the Eco-friendly range.

According to the hybrid system gauge area, the “EV” indicator comes on or off.

- “EV” indicator ON : Vehicle is driven using the electric motor or the gasoline engine is stopped.
- “EV” indicator OFF : Vehicle is driven using the gasoline engine.

Hybrid battery SOC (State of Charge) gauge

■ 4.2-Inch



ONX4HQ010016N

■ 10.25-inch



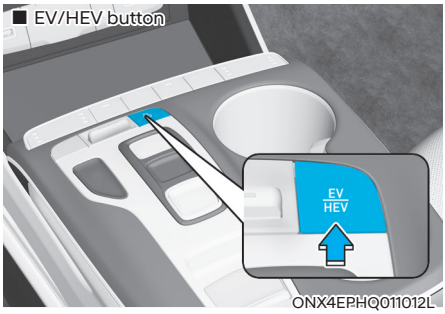
OCN7H040003

This gauge indicates the remaining hybrid battery power. If the SOC is near the “L (Low)” level, the vehicle automatically operates the engine to charge the battery.

However, if the Service Indicator (HEV) and Malfunction Indicator Lamp (MIL) turn on when the SOC gauge is near the “L (Low)” level, have the vehicle be checked by an authorized HYUNDAI dealer.

Plug-in Hybrid Mode (Plug-in hybrid vehicle)

■ EV/HEV button



ONX4EPHQ011012L

Pressing the [EV/HEV] button changes the plug-in hybrid system modes, between Electric (CD) mode and Hybrid (CS) mode.

Each time the mode is changed a corresponding indicator is displayed on the instrument cluster as follows.

■ AUTO mode

• Type A



ONX4EPHQ011013L

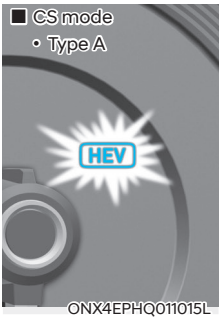
• Type B



ONX4EPHQ011014L

■ CS mode

• Type A



ONX4EPHQ011015L

• Type B



ONX4EPHQ011016L

Plug-in hybrid mode indicator

- CD (Charge Depleting, Electric) mode : The high-voltage (hybrid) battery is used to drive the vehicle.
- AUTO mode : CD mode and CS mode are selected automatically depending on road conditions.
- CS (Charge Sustaining, Hybrid) mode : The high-voltage (hybrid) battery and gasoline engine is used to drive the vehicle.

Information

Even when the battery charging rate is high and driving in electric mode is possible, engine may turn on in some areas to protect the system.

Infotainment system Screen (Plug-in hybrid vehicle) (if equipped)



OTMPHQ010018L

Press [PHEV] on the [Home] screen or the [All menus] screen and the menus related to plug-in hybrid ([ECO driving], [Energy information], [EV range], [Set charging times], [Charging stations], [Petrol stations]) are displayed.

Information

The infotainment system may change after software updates. For more information, refer to the user manual provided in the infotainment system and the quick reference guide.

Aux. Battery Saver+ (Plug-in hybrid vehicle)

The Aux. Battery Saver+ is a function that monitors the charging status of the 12 V auxiliary battery. If the auxiliary battery level is low, the main high voltage battery charges the auxiliary battery.

Information

The Aux. Battery Saver+ function will be ON when the vehicle is delivered. If the function is not needed, you may turn it off in the Users Settings mode on the cluster. For more information, refer to the following page.

Mode

- Cycle Mode:

When the vehicle is OFF with all doors, hood and liftgate closed, the Aux. Battery Saver+ periodically activates according to the auxiliary battery status.

- Automatic Mode:

When the ignition switch is in the ON position with the charging connector plugged in, the function activates according to the auxiliary battery status to prevent overdischarge of the auxiliary battery.

Information

- **The Aux. Battery Saver+ activates maximum of 20 minutes. If the Aux. Battery Saver+ function activates more than 10 times consecutively, in the Automatic Mode the function will stop activating, judging that there is a problem with the auxiliary battery. In this case, drive the vehicle for some period of time. The function will start activating if the auxiliary battery returns to normal.**
- **The Aux. Battery Saver+ function cannot prevent battery discharge if the auxiliary battery is damaged, worn out, used as a power supply or unauthorized electronic devices are used.**
- **If the Aux. Battery Saver+ function was activated, the high voltage battery level may have decreased.**

System Setting



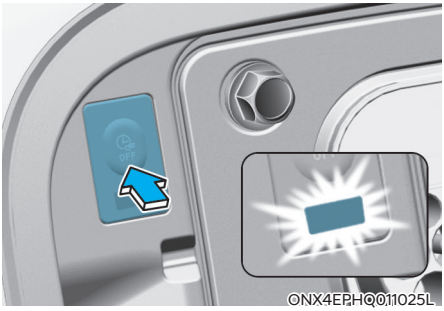
OAEPHQ049855L

The driver can activate the Aux. Battery Saver+ function by placing the ignition switch to the ON position and by selecting:

'User Settings → Other → Aux. Battery Saver+'

The Aux. Battery Saver+ function deactivates, when the driver cancels the system setting.

WARNING


ONX4EPHQ011025L

When the function is activating, the charging indicator lamp will be on in red and high voltage electricity will be flowing in the vehicle. Do not touch the high voltage electric wire (orange), connector, and all electric components and devices. This may cause electric shock and lead to injuries. Also, do not modify your vehicle in any way. This may affect your vehicle performance and lead to an accident.

Warning and Indicator Lights

Ready indicator



This indicator illuminates:

When the vehicle is ready to be driven.

- ON : Normal driving is possible.
- OFF : Normal driving is not possible, or a problem has occurred.

When the ready indicator goes OFF, there is a problem with the system. If this occurs, have your vehicle inspected by an authorized HYUNDAI dealer.

EV mode indicator

EV

This indicator illuminates:

When the vehicle is driven by the electric motor.

Charging Cable Connection Indicator (Plug-in hybrid vehicle)



This indicator illuminates in red when the charging cable is connected.

Service warning light



This warning light illuminates:

- When you set the ignition switch or the Engine Start/Stop button to the ON position.
  - The service warning light illuminates for approximately 3 seconds and then turns off when all checks have been performed.
- When there is a problem with the hybrid vehicle control system or hardware.

When the warning light illuminates while driving, or does not go OFF after starting the vehicle, have the vehicle inspected by an authorized HYUNDAI dealer.

Regenerative brake warning light



This warning light illuminates:

When the regenerative brake does not operate and the brake does not perform well. This causes the Brake Warning light (red) and Regenerative Brake Warning Light (yellow) to illuminate simultaneously.

If this occurs, drive safely and have your vehicle inspected by an authorized HYUNDAI dealer. The operation of the brake pedal may be more difficult than normal and the braking distance may increase.

Cluster Display Messages

Ready to start driving



OOSHQ019003L

This message is displayed when the vehicle is ready to be driven.

Check regenerative brakes



OOSHQ019004L

This message is displayed when the brake performance is low or the regenerative brake does not work properly due to a failure in the brake system.

If this occurs, it may take longer for the brake pedal to operate and the braking distance may become longer.

Stop vehicle and check brakes



OOSHQ019006L

This message is displayed when a failure occurs in the brake system.

If this occurs, park the vehicle in a safe location and tow your vehicle to the nearest authorized HYUNDAI dealer and have the vehicle inspected.

Check Hybrid system



OOSHQ019005L

This message is displayed when there is a problem with the hybrid control system. Refrain from driving when the warning message is displayed.

If this occurs, have the vehicle inspected by an authorized HYUNDAI dealer.

Stop safely and check Hybrid system



OOSHQ019007L

This message is displayed when there is a problem with the hybrid control system. The "" indicator will blink and a warning chime will sound for approximately 10 seconds until the problem is solved. Refrain from driving when the warning message is displayed.

If this occurs, have the vehicle inspected by an authorized HYUNDAI dealer.

Check Hybrid system. Do not start engine



OOSHQ019008L

This message is displayed when the hybrid battery power (SOC) level is low. A warning chime will sound until the problem is solved. Refrain from driving when the warning message is displayed.

If this occurs, have the vehicle inspected by an authorized HYUNDAI dealer.

Stop safely and check power supply



OOSHQ019009L

This message is displayed when a failure occurs in the power supply system.

If this occurs, park the vehicle in a safe location and tow your vehicle to the nearest authorized HYUNDAI dealer and have the vehicle inspected.

Check virtual engine sound system



OOSHQ019010L

This message is displayed when there is a problem with the Virtual Engine Sound System (VESS).

If this occurs, have the vehicle inspected by an authorized HYUNDAI dealer.

Refill inverter coolant



OOSHQ019012L

This message is displayed when the inverter coolant is nearly empty.

You should refill the inverter coolant.

Park with engine On to charge battery

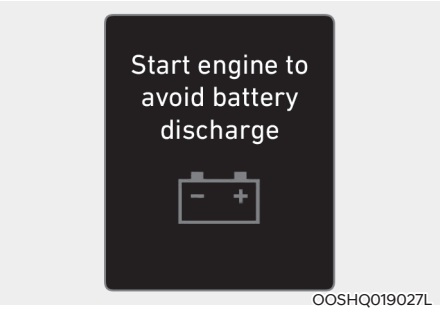


OOSHQ019013L

This message is displayed when the hybrid battery power (SOC) level is low.

If this occurs, park the vehicle in a safe location and wait until the hybrid battery is charged.

Start engine to avoid battery discharge



OOSHQ019027L

This message is displayed to inform the driver the 12V battery may be discharged if the ignition switch is in ON position (without the indicator ON).

Set the vehicle to the ready ( ) mode to prevent the 12V battery from being discharged.

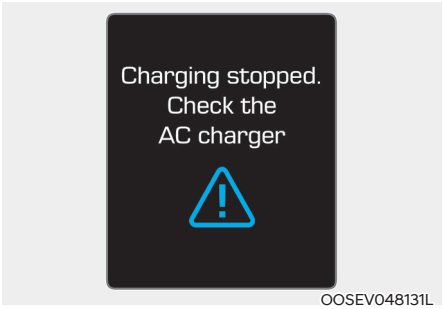
Unplug vehicle to start (Plug-in hybrid vehicle)



OAEPHQ049829L

This message is displayed when you start the engine without unplugging the charging cable. Unplug the charging cable, and then start the vehicle.

Charging stopped. Check the AC charger



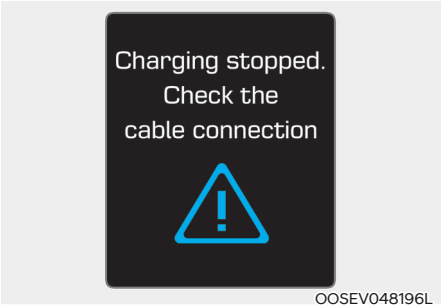
OOSEV048131L

- This warning message is displayed when charging is stopped for the reasons below:
  - There is a problem with the external AC charger
  - The external AC charger stopped charging
  - The charging cable is damaged

In this case, check whether there is any problem with the external AC and charging cable.

If the same problem occurs when charging the vehicle with a normally operating AC charger or genuine HYUNDAI portable charger, have your vehicle inspected by an authorized HYUNDAI dealer.

Charging stopped. Check the cable connection



OOSEV048196L

This warning message is displayed when charging is stopped because the charging connector is not correctly connected to the charging inlet

In this case, separate the charging connector and re-connect it and check whether there is any problem (external damage, foreign substances, etc.) with the charging connector and charging inlet.

If the same problem occurs when charging the vehicle with a replaced charging cable or genuine HYUNDAI portable charger, have your vehicle inspected by an authorized HYUNDAI dealer.

Remaining time (Plug-in hybrid vehicle)



OAEPHQ049818L

This message is displayed to notify the remaining time to fully charge the battery.

Wait until fuel door opens (Plug-in hybrid vehicle)



OAEPHQ049830L

This message is displayed when you attempt to open the fuel filler door with the fuel tank pressurized. Wait until the fuel tank is depressurized.

NOTICE

- **It may take up to 20 seconds to open fuel filler door.**
- **When the fuel filler door is frozen and does not open after 20 seconds at freezing temperature, slightly tap the fuel filler door and then attempt to open it. In other cases, have your vehicle inspected by an authorized HYUNDAI dealer.**
- **Do not pry on the door. If necessary, spray around the door with an approved de-icer fluid (do not use radiator anti-freeze) or move the vehicle to a warm place and allow the ice to melt.**

Check fuel door (Plug-in hybrid vehicle)



OAEPHQ049831L

The message is displayed when the fuel filler door is open while in driving or an abnormality has occurred.

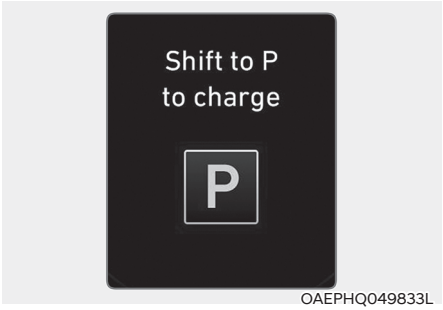
Fuel door open (Plug-in hybrid vehicle)



OAEPHQ049832L

This message is displayed when the fuel filler door opens after the fuel tank is depressurized. If this message is displayed, you can refuel the fuel tank.

Shift to P to charge (Plug-in hybrid vehicle)



OAEPHQ049833L

This message is displayed when the charging connector is plugged with the shift button in R (Reverse), N (Neutral) or D (Drive). Move the shift button to P (Park) and re-start the charging process.

Switching to Hybrid mode to allow heating or air conditioning (Plug-in hybrid vehicle)



OAEPHQ049842L

This message is displayed when the vehicle automatically switches to HEV mode to allow heating or air conditioning. It is when the coolant temperature is low (below 7°F (-14°C)) and the driver turns on the heating or cooling system.

If the coolant temperature gets higher than 7°F (-14°C) or the driver turns off the heating or cooling system the vehicle returns to its default (EV) mode.

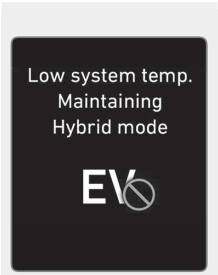
Maintaining Hybrid mode to allow heating or air conditioning (Plug-in hybrid vehicle)



OAEPHQ049841L

This message is displayed when the vehicle maintains the HEV mode to allow heating or air conditioning. The mode does not change when the driver presses the [HEV] button to switch from the HEV mode to EV mode while the heating and cooling system is on and the coolant temperature is below 7°F (-14°C).

Low/High System Temp. Maintaining Hybrid mode (Plug-in hybrid vehicle)



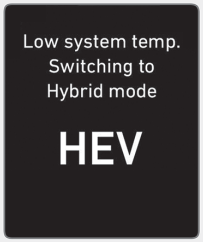
OAEPHQ049834L



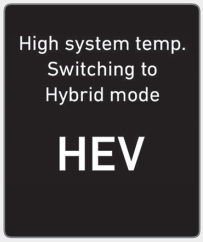
OAEPHQ049835L

This message is displayed when the temperature of the high-voltage (hybrid) battery is too low or too high. This warning message is to protect the battery and the hybrid system.

Low/High System Temp. Switching to Hybrid mode (Plug-in hybrid vehicle)



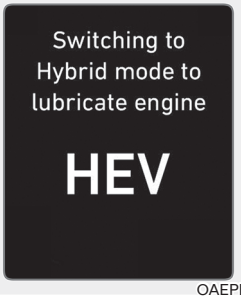
OAEPHQ049836L



OAEPHQ049837L

This message is displayed when the temperature of the high-voltage (hybrid) battery is too low or high. This warning message is to protect the battery and the hybrid system.

Switching to Hybrid mode to lubricate engine (Plug-in hybrid vehicle)



OAEPHQ049838L

This message is displayed when the vehicle is automatically switched to the HEV mode to lubricate engine while the ignition switch is in the ON position.

Maintaining Hybrid mode to protect engine (Plug-in hybrid vehicle)



OAEPHQ049839L

This message is displayed when the [HEV] button is pressed but it is impossible to switch from the HEV mode to EV mode due to engine lubrication.

Exit SPORT mode to switch to EV (Plug-in hybrid vehicle)



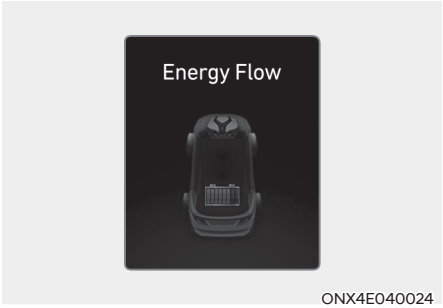
OAEPHQ049840L

This message is displayed when [HEV] button is pressed but it is impossible to switch from the HEV mode to EV mode because the SPORT mode is engaged.

Energy Flow

The hybrid system informs the drivers its energy flow in various operating modes. While driving, the current energy flow is specified in 11 modes.

Vehicle stop

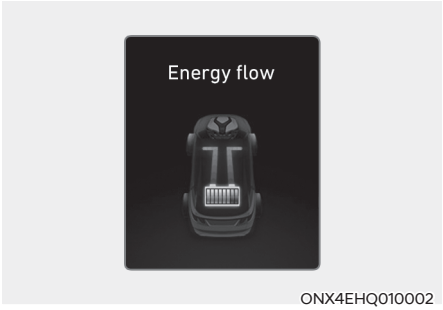


ONX4E040024

The vehicle is stopped.

(No energy flow)

EV propulsion

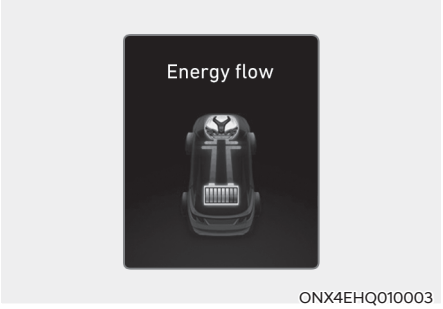


ONX4EHQ010002

Only the motor power is used to drive the vehicle.

(Battery → Wheel)

Power assist

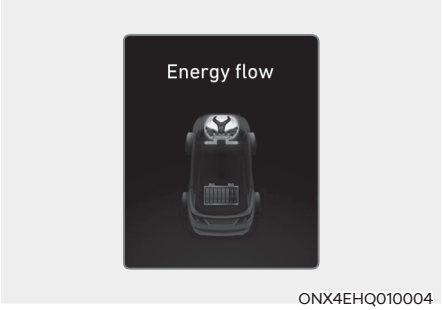


ONX4EHQ010003

Both the motor and the engine power are used to drive the vehicle.

(Battery & Engine → Wheel)

Engine only propulsion

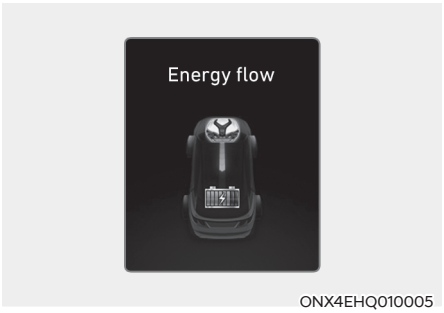


ONX4EHQ010004

Only the engine power is used to drive the vehicle.

(Engine → Wheel)

Engine generation

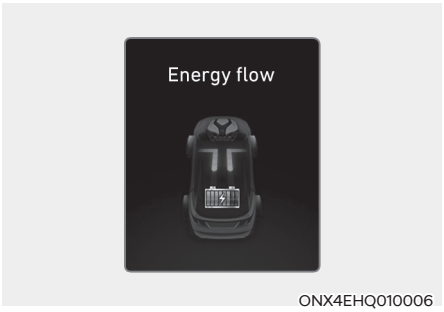


ONX4EHQ010005

When the vehicle is stopped, the high-voltage battery is charged up by the engine.

(Engine → Battery)

Regeneration

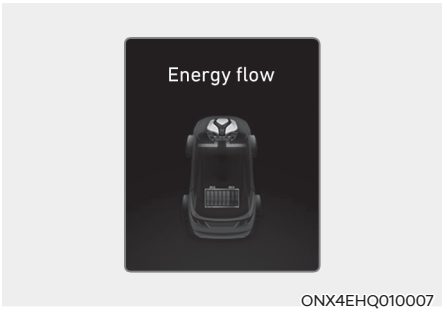


ONX4EHQ010006

The high-voltage battery is charged up by the regenerative brake system.

(Wheel → Battery)

Engine brake

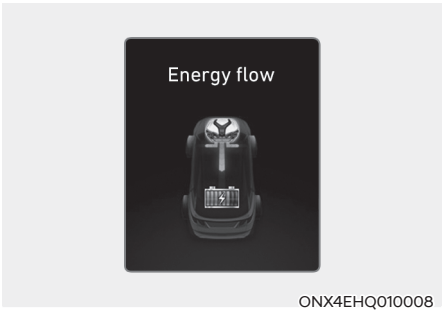


ONX4EHQ010007

The engine braking is used to decelerate the vehicle.

(Wheel → Engine)

Power reserve

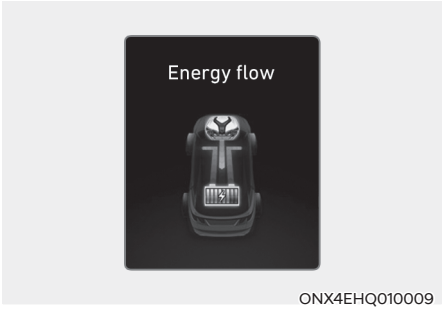


ONX4EHQ010008

The engine is simultaneously used to drive the vehicle and to charge up the high-voltage battery.

(Engine → Wheel & Battery)

Engine generation/motor drive

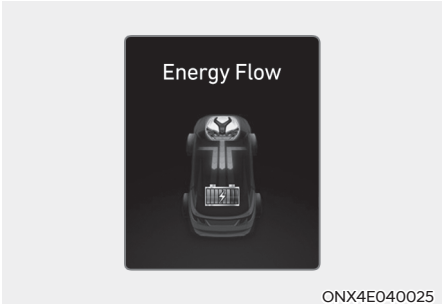


ONX4EHQ010009

The engine charges up the high-voltage battery. The motor power is used to drive the vehicle.

(Engine → Battery → Wheel)

Engine generation/regeneration

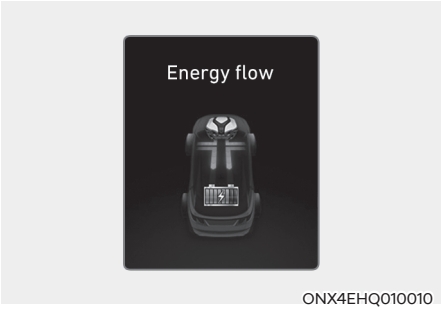


ONX4E040025

The engine and regenerative brake system charges up the high-voltage battery.

(Engine & Wheel → Battery)

Engine brake/regeneration



ONX4EHQ010010

The engine braking is simultaneously used to decelerate the vehicle and to charge up the high-voltage battery.

(Wheel → Engine & Battery)

HYBRID DRIVING SYSTEM

e-Handling (Electrically Assisted Handling Performance)/e-EHA (Electrically Evasive Handling Assist)

e-Handling controls the electric motor while turning around to improve the handling performance, driving safety, convenience and ride comfort.

e-EHA connects FCA (Forward Collision Avoidance Assist) and the electric motor to provide assists to avoid collision so that prompt collision avoidance is available while FCA warning appears.

✳ e-Handling stands for Electrically Assisted Handling Performance.

✳ e-EHA means Electrically Evasive Handling Assist.

Operation condition

e-Handling starts to work by identifying enter or exit condition if the driver operates the steering wheel over a certain level when the vehicle speed is between 24 mph and 74 mph.

e-EHA operates if there is urgent steering wheel operation while FCA (Forward Collision Avoidance Assist) warning appears

Operation cancel

- When ESC operates
- When ABS operates

CAUTION

The system does not work under the following conditions.

- **When the ESC operation stop light is on**
- **When it does not work due to a malfunction of electronic device**
- **When the manual transmission mode is set**
- **The gear shift is not in D (Drive)**

Information

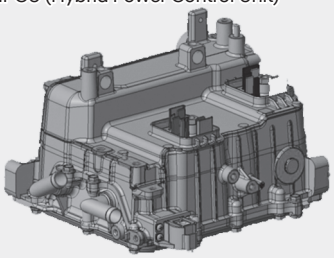
Please refer to the chapter 6 “Paddle shift (manual transmission mode) of automatic transmission (electronic transmission button)”

SAFETY PRECAUTIONS FOR HYBRID SYSTEM

Hybrid Vehicle Components

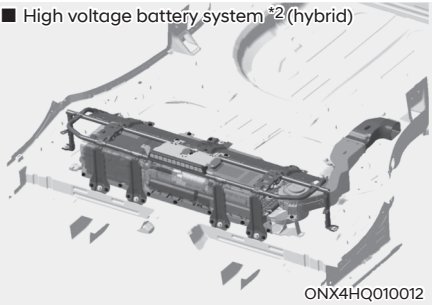
High voltage battery system

■ HPCU (Hybrid Power Control Unit) *1



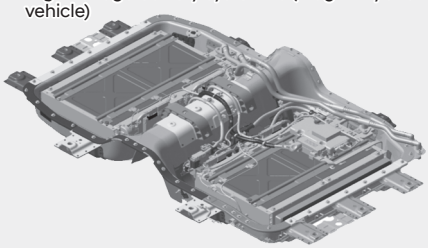
OTMHQ010013

■ High voltage battery system *2 (hybrid)



ONX4HQ010012

■ High voltage battery system *3 (Plug-in hybrid vehicle)



ONX4EPHQ011017L

*1 : Located in the engine compartment

*2 : Located under rear seat

*3 : Located under the front seat

WARNING

Never touch orange colored or high voltage labeled components, including wires, cables, and connections. When the insulators or covers are damaged or removed, severe injury or death from electrocution may occur.

WARNING

While replacing the fuses in the engine compartment, never touch the HPCU. The HPCU carries high voltage. Touching the HPCU may result in electrocution, serious injury, or death.

WARNING

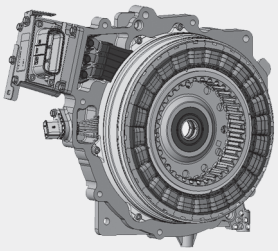
In the hybrid system, the hybrid battery uses high voltage to operate the motor and other components. This high voltage hybrid battery system can be very dangerous.

Never touch the hybrid system. When you touch the hybrid battery system, serious injury or death may occur.

CAUTION

- **Do not pile up any items in an area behind the high voltage battery. In a crash, the battery may become unstable, or its performance may degrade.**
- **Do not apply strong force nor pile up any items above the luggage compartment. Such an attempt may distort the high voltage battery case, causing a safety problem or degrading the performance.**
- **Be careful when loading flammable liquid in the passenger compartment. It could cause operational and safety degradation if the liquid leaks and flows in the high voltage battery.**

■ Drive motor *4



OTMHQ010015

*4 : Located in the engine compartment

WARNING

- **Do not disassemble the high voltage motor connector. The high voltage motor connector may contain residual high voltage. Coming in contact with high voltage may result in death or serious injury.**
- **Your vehicle's hybrid system should only be inspected or repaired by an authorized HYUNDAI dealer.**

WARNING

- **Do not disassemble or assemble the high voltage battery system. Doing so may result in electric shock, causing death or serious injury.**
- **If you disassemble or assemble hybrid system components improperly, it may damage the performance and reliability of your vehicle.**
- **If electrolyte comes in contact with your body, clothes or eyes, immediately flush with a large quantity of fresh tap water. Have your eyes examined by a doctor as soon as possible.**

WARNING

Never assemble or disassemble the high voltage battery system.

- **If you assemble or disassemble the high voltage battery system, the durability and performance of the vehicle may be damaged.**
- **When you want to check the high voltage battery system, have the vehicle inspected by an authorized HYUNDAI dealer.**
- **Do not touch the high voltage battery and high voltage cable connected to motor (orange color). Severe burns and electric shock may occur. For your safety, do not touch the cover of electronic components and electronic cable. Do not remove the cover of electronic components and electronic cable. In particular, never touch the high voltage battery system when the hybrid system in operation. It may result in death or serious injury.**

WARNING

- **Never use the package modules (high voltage battery, inverter and converter) for any other purpose.**
- **Do not use an unauthorized battery charger to charge the high voltage battery. Doing so may result in death or serious injury.**
- **Never locate the high voltage system near or in a fire.**
- **Never drill into or strike the package module. Otherwise, it may be damaged. An electric shock may occur, resulting in serious injury or death.**

NOTICE

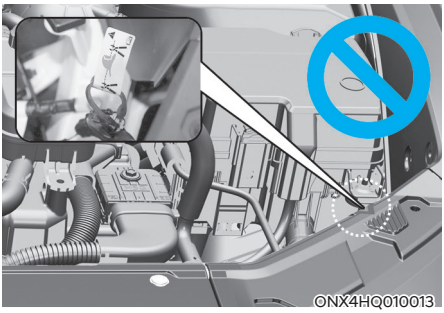
- **When the vehicle is paint baked, do not bake over 30 minutes in 158°F (70°C) or 20 minutes in 176°F (80°C) degree.**
- **Do not wash the engine compartment, using water. Water may cause an electric shock and damage the electronic components.**

WARNING

This hybrid vehicle uses the hybrid battery system inverter and converter to generate high voltage. High voltage in the hybrid battery system is very dangerous and may cause severe burns and electric shock. This may result in serious injury or death.

- **For your safety, never touch, replace, disassemble or remove the hybrid battery system including components, cables and connectors. Severe burns or electric shock may result in serious injury or death when you fail to follow this warning.**
- **When the hybrid battery system operates, the hybrid battery system can be hot. Always be careful because burns or electric shock may be caused by high voltage.**
- **Do not spill liquid on the HPCU, HSG, motor and fuses. If the hybrid system components come in contact with liquid, it may result in electric shock.**

Service Interlock Connector



In case of emergency, cut the service interlock connector cable to isolate the high voltage of the battery.

WARNING

Never disconnect the service interlock connector or cut the wire except in an emergency situation.

Serious problems may occur, such as the vehicle will not start.

Hybrid Battery Cooling Duct



The hybrid battery cooling duct is located of the Passenger's seat. The cooling duct cools down the hybrid battery. When the hybrid battery cooling duct is blocked, the hybrid battery may be overheated.

Clean the cooling duct for the hybrid battery with a dry cloth on a regular basis.

WARNING

- Never clean the cooling duct of the hybrid battery with a wet cloth. If any water enters the cooling duct of the hybrid battery, the hybrid battery may cause an electric shock, resulting in a serious damage, an injury or a death.
- The hybrid battery is composed of lithium-ion. If the hybrid battery is improperly handled, it is dangerous to the environment. Also it may cause electrical shock and severe burns, resulting in a serious injury or a death.
- Do not spill liquid over the cooling duct of the hybrid battery. Doing so is very dangerous. It may cause electric shock or serious injury.
- Do not cover the cooling duct with objects.
- Do not put any objects into the cooling duct of the hybrid battery. Doing so may cause loss of cooling duct volume to the hybrid battery. When the cooling duct is blocked with any objects, immediately contact your HYUNDAI dealer.
- Never place a container of liquid on or near the cooling duct. If the liquid spills, the hybrid battery located in the under floor may be damaged.
- Do not obstruct the cooling duct with any other objects.

If an accident occurs

WARNING

- For your safety, do not touch the high voltage cables, connectors and package modules. High voltage components are orange in color.
- Exposed cables or wires may be visible inside or outside of the vehicle. Never touch the wires or cables, because an electrical shock, an injury, or a death may occur.
- Any gas or electrolyte leakage from your vehicle is not only poisonous but also flammable. Upon witnessing one of those, open the windows, and remain a safe distance from the vehicle out of the road.

  Immediately call an emergency services or contact an authorized HYUNDAI dealer and advise them that a hybrid vehicle is involved.
- When the vehicle is severely damaged, remain a safe distance of 49 feet or more between your vehicle and other vehicles/flammables.

WARNING

If a fire occurs:

- **If a small scale fire occurs, use a fire extinguisher (ABC, BC) that is meant for electrical fires.**

  If it is impossible to extinguish the fire in the early stage, remain a safe distance from the vehicle and immediately call your local fire emergency responders. Also, advise them that a hybrid vehicle is involved.

  If the fire spreads to the high voltage battery, large amount of water is needed to put out the fire.

  Using small amount of water or fire extinguishers not meant for electrical fires could cause serious injury or death from electrical shocks.
- **Upon witnessing any sparks, gases, flames, or fuel leakage of your vehicle, immediately call emergency services or contact an authorized HYUNDAI dealer. Also, advise them that a hybrid vehicle is involved.**

WARNING

When a submersion in water occurs:

When your vehicle is flooded in water, a high-voltage battery may cause shock or fires. Thus, turn the hybrid system OFF, take the key in your possession and escape to a safe place. Never attempt physical contact with your flooded vehicle.

Immediately contact an authorized HYUNDAI dealer and advise them that a hybrid vehicle is involved.

When the Hybrid Vehicle Shuts Off

When the high voltage battery or 12 V battery is discharged, or when the fuel tank is empty, the hybrid system may not operate while driving. When the Hybrid system does not operate, do the following:

1. Gradually reduce the vehicle speed. Pull over your vehicle off the road in a safe area.
2. Make sure the shift button is in P (Park).
3. Turn ON the hazard warning flashers.
4. Turn OFF the vehicle, and try to start the hybrid system again, while depressing the brake pedal and turning on the ignition switch.
5. When the hybrid system still does not operate, refer to “Jump starting” section in chapter 8.

   Before jump-starting the vehicle, check the fuel level and the exact procedure to jump start. For further details, refer to “Jump starting” section in chapter 8. When the fuel level is low, do not attempt to drive the vehicle only with the battery power. The high voltage battery may be discharged, and the hybrid system will turn OFF.

2. Vehicle Information, Consumer Information and Reporting Safety Defects

Exterior Overview (Front View) - Hybrid Vehicle 2-2
Exterior Overview (Rear View) - Hybrid Vehicle 2-4
Interior Overview - Hybrid Vehicle 2-6
Center Console Overview - Hybrid Vehicle 2-7
Steering Wheel Control Overview - Hybrid Vehicle 2-8
Engine Compartment Overview - Hybrid Vehicle 2-9
Exterior Overview (Front View) - Plug-in Hybrid Vehicle 2-10
Exterior Overview (Rear View) - Plug-in Hybrid Vehicle 2-11
Interior Overview - Plug-in Hybrid Vehicle 2-12
Center Console Overview - Plug-in Hybrid Vehicle 2-13
Steering Wheel Control Overview - Plug-in Hybrid Vehicle 2-14
Engine Compartment Overview - Plug-in Hybrid Vehicle 2-15
Dimensions 2-16
Engine 2-16
Bulb Wattage 2-17
Tires and Wheels 2-18
Air Conditioning System 2-19
Volume and Weight 2-19
Recommended Lubricants and Capacities 2-20
Recommended SAE Viscosity Number 2-21
Vehicle Identification Number (VIN) 2-22
Vehicle Certification Label 2-22
Tire Specification and Pressure Label 2-23
Engine Number 2-23
Air Conditioner Compressor Label 2-23
Charging Label 2-23
Air Conditioning Refrigerant Label 2-24
Open Source Software Notice (for Plug-in Hybrid Vehicle) 2-24
Consumer Information 2-25
Reporting Safety Defects 2-26

EXTERIOR OVERVIEW (FRONT VIEW) - HYBRID VEHICLE

■ Front view



The actual shape may differ from the illustration.

ONX4A011001

1. Hood 5-66
2. Headlight 9-60
3. Tires and wheels 9-34
4. Side view mirror 5-54
5. Panoramic sunroof 5-61
6. Front windshield wiper blades 9-26
7. Windows 5-56
8. Front radar 7-15

■ Front view (N Line)



The actual shape may differ from the illustration.

ONX4N011001N

1. Hood 5-66
2. Headlight 9-60
3. Tires and wheels 9-34
4. Side view mirror 5-54
5. Panoramic sunroof 5-61
6. Front windshield wiper blades 9-26
7. Windows 5-56
8. Front radar 7-15

EXTERIOR OVERVIEW (REAR VIEW) - HYBRID VEHICLE

■ Rear view



The actual shape may differ from the illustration.

ONX4H010002

1. Door handle 5-29
2. Fuel filler door..... 5-77
3. Rear combination lamp.....9-61
4. Liftgate 5-67
5. High mounted stop lamp.....9-64
6. Rear windshield wiper blades.....9-27
7. Antenna 5-132
8. Wide-rear view camera..... 7-113

■ Rear view (N Line)

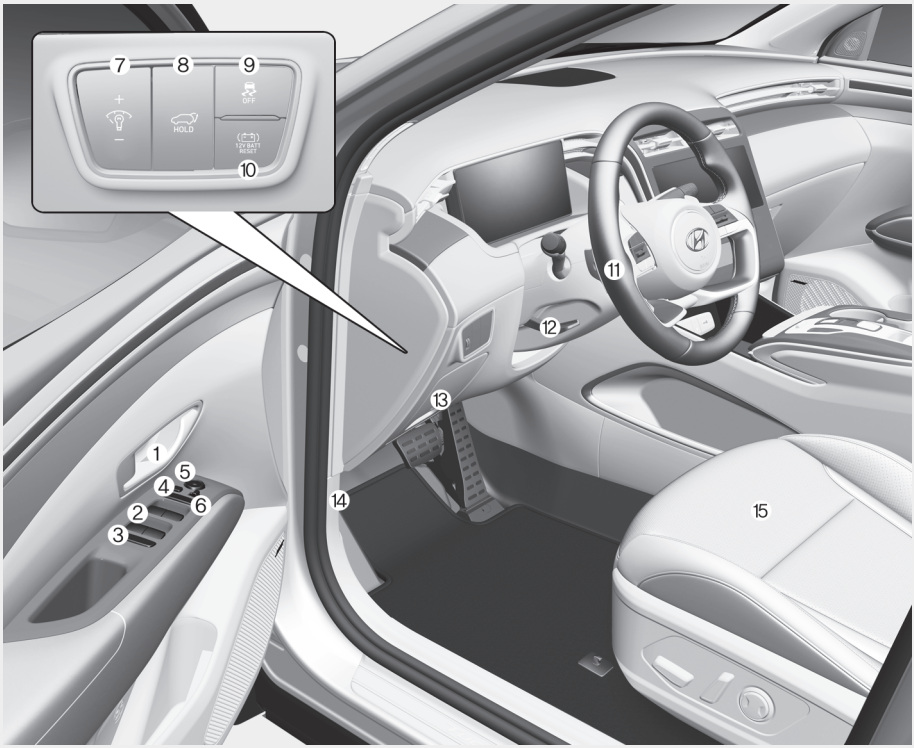


The actual shape may differ from the illustration.

ONX4012002AU

1. Door handle 5-29
2. Fuel filler door..... 5-77
3. Rear combination lamp.....9-61
4. Liftgate 5-67
5. High mounted stop lamp.....9-64
6. Rear windshield wiper blades.....9-27
7. Antenna..... 5-132
8. Wide-rear view camera..... 7-113

INTERIOR OVERVIEW - HYBRID VEHICLE

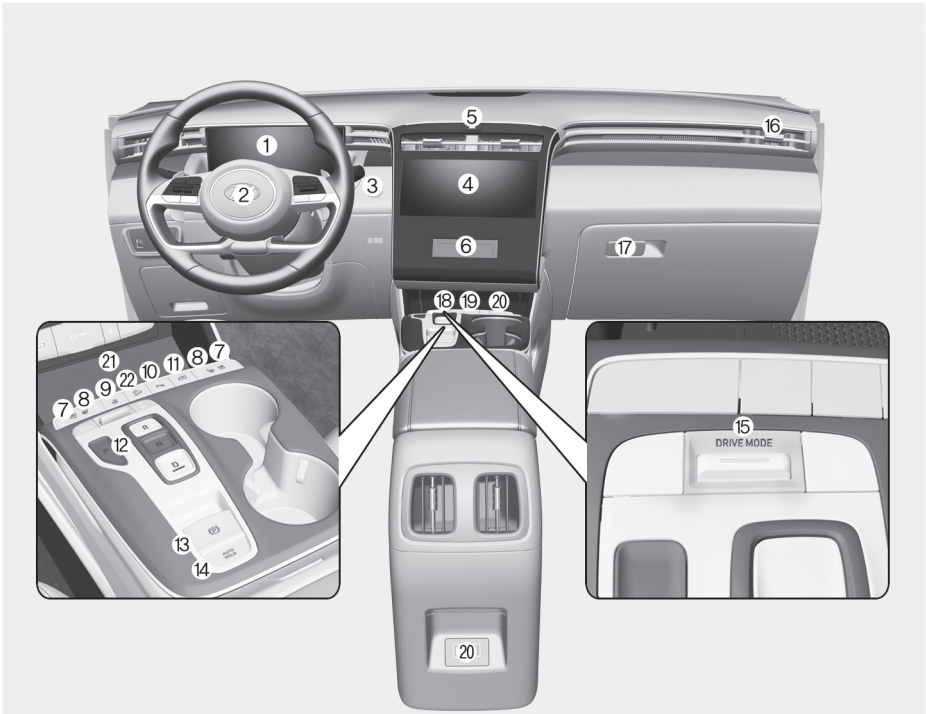


The actual shape may differ from the illustration.

ONX4H010003N

1. Inside door handle 5-31
2. Power window switches 5-57
3. Power window lock switch 5-58
4. Side view mirror folding switch 5-55
5. Side view mirror control switch 5-55
6. Central door lock switch 5-31
7. Instrument panel illumination control switch 4-5
8. Power Liftgate button 5-71
9. ESC OFF button 6-28
10. 12V battery reset switch 8-5
11. Steering wheel 5-40
12. Steering wheel tilt/telescopic lever 5-41
13. Fuse box 9-50
14. Hood release lever 5-66
15. Seat 3-6

CENTER CONSOLE OVERVIEW - HYBRID VEHICLE

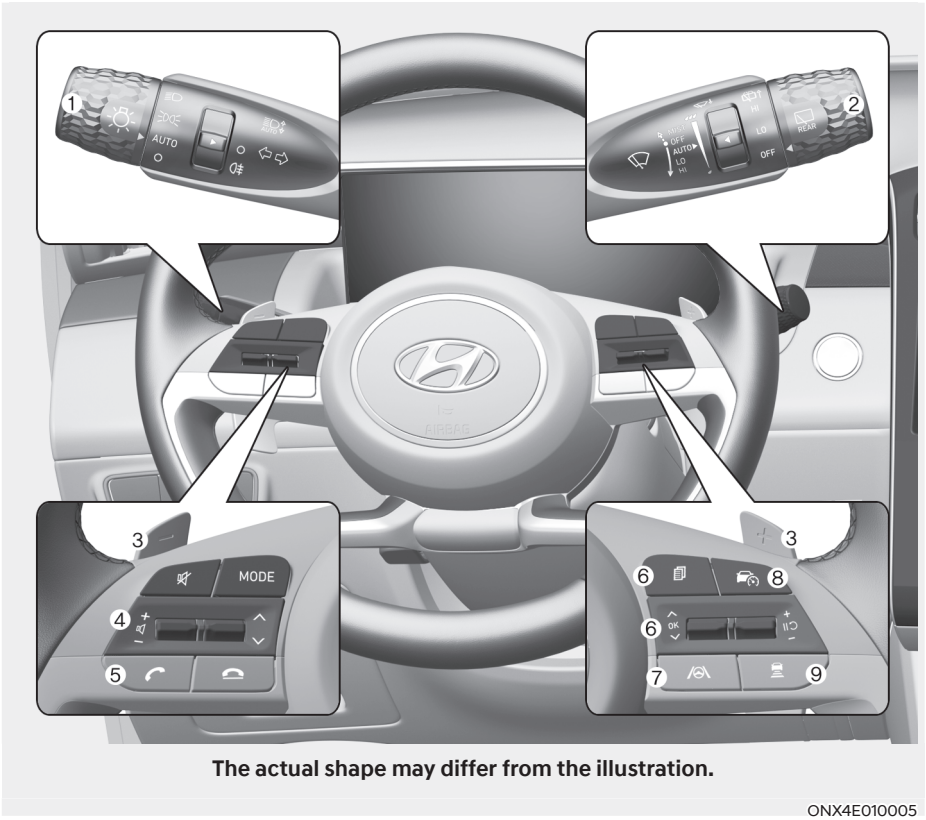


The actual shape may differ from the illustration.

ONX4H010005N

1. Instrument cluster 4-4
2. Driver's front air bag 3-45
3. Engine Start/Stop button 6-8
4. Infotainment system 4-58
5. Hazard warning lamp switch 8-2
6. Climate control system 5-99
7. Air ventilation seat 3-20
8. Seat warmer 3-18
9. Heated steering wheel 5-41
10. Parking Safety button 7-139
11. Parking/View button 7-153
12. Transmission shift button 6-10
13. EPB (Electronic Parking Brake) switch ... 6-19
14. Auto Hold switch 6-23
15. Drive mode button 6-46
16. Passenger's front air bag 3-45
17. Glove box 5-119
18. USB port 5-131
19. Power outlet 5-121
20. USB charger 5-122
21. Wireless charging system pad 5-123
22. DBC (Downhill Brake Control) button . 6-33

STEERING WHEEL CONTROL OVERVIEW - HYBRID VEHICLE



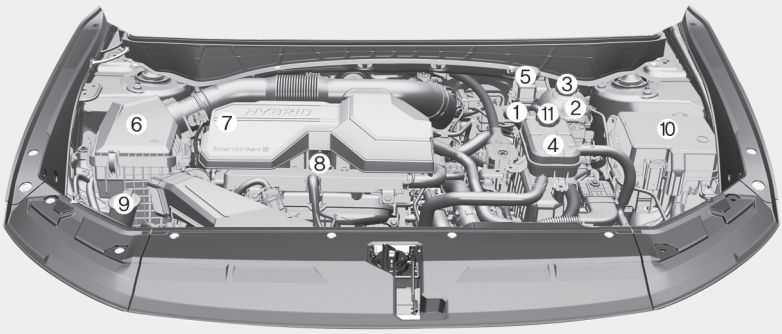
The actual shape may differ from the illustration.

ONX4E010005

1. Lighting control lever 5-84
2. Wiper and washer control lever..... 5-95
3. Paddle shifter..... 6-15
4. Audio remote control buttons 5-132
5. Bluetooth® hands-free phone button 5-134
6. Cluster display control 4-23
7. Lane Driving Assist button..... 7-33
8. Driving Assist button 7-58
9. Vehicle Distance button 7-79

ENGINE COMPARTMENT OVERVIEW - HYBRID VEHICLE

■ Smartstream G 1.6 T-GDi HEV



The actual engine compartment in the vehicle may differ from the illustration.

ONX4PH091001N

1. ECU
2. Engine coolant reservoir 9-18
3. Engine coolant reservoir cap 9-18
4. Inverter coolant reservoir..... 9-18
5. Brake fluid reservoir 9-21
6. Air cleaner 9-23
7. Engine oil filler cap 9-16
8. Engine oil dipstick 9-16
9. Windshield washer fluid reservoir 9-22
10. Fuse box 9-54
11. Inverter coolant reservoir cap 9-18

EXTERIOR OVERVIEW (FRONT VIEW) - PLUG-IN HYBRID VEHICLE



The actual shape may differ from the illustration.

ONX4PH011001N

1. Hood 5-66
2. Headlight 9-60
3. Tires and wheels 9-34
4. Side view mirror 5-54
5. Panoramic sunroof 5-61
6. Front windshield wiper blades 9-26
7. Windows 5-56
8. Front radar 7-15

EXTERIOR OVERVIEW (REAR VIEW) - PLUG-IN HYBRID VEHICLE

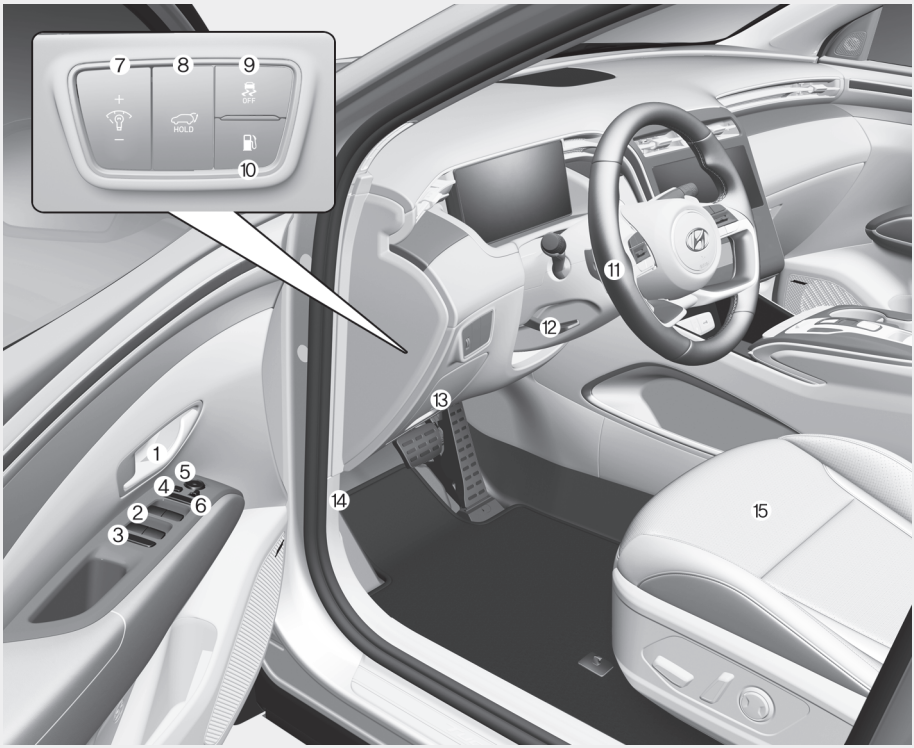


The actual shape may differ from the illustration.

ONX4PH011002N

1. Door handle 5-29
2. Fuel filler door 5-77
3. Rear combination lamp 9-61
4. Liftgate 5-67
5. High mounted stop lamp 9-64
6. Rear windshield wiper blades 9-27
7. Antenna 5-132
8. Wide-rear view camera 7-113

INTERIOR OVERVIEW - PLUG-IN HYBRID VEHICLE

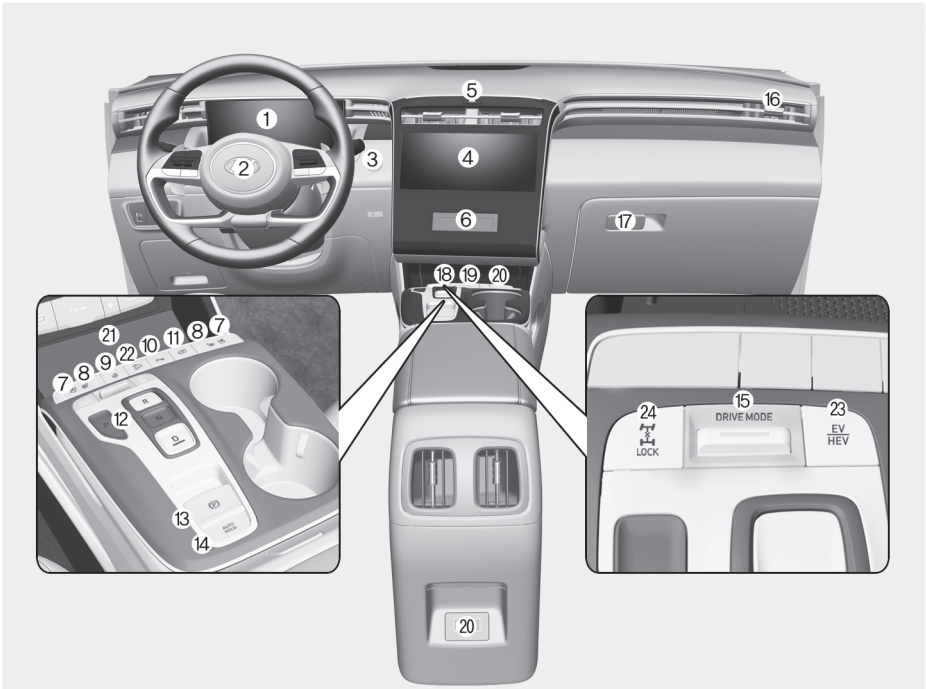


The actual shape may differ from the illustration.

ONX4PH011003N

1. Inside door handle 5-31
2. Power window switches 5-57
3. Power window lock switch 5-58
4. Side view mirror folding switch 5-55
5. Side view mirror control switch 5-55
6. Central door lock switch 5-31
7. Instrument panel illumination control switch 4-5
8. Power Liftgate button 5-71
9. ESC OFF button 6-28
10. Fuel filler door open button 8-5
11. Steering wheel 5-40
12. Steering wheel tilt/telescopic lever 5-41
13. Fuse box 9-50
14. Hood release lever 5-66
15. Seat 3-6

CENTER CONSOLE OVERVIEW - PLUG-IN HYBRID VEHICLE

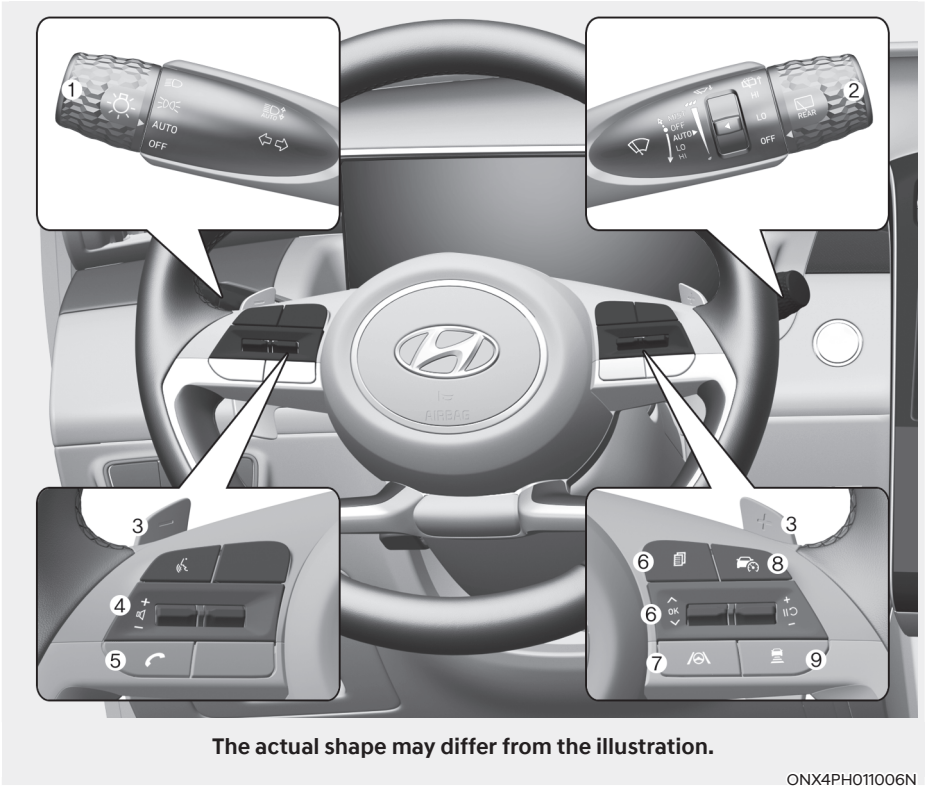


The actual shape may differ from the illustration.

ONX4PH011005N

1. Instrument cluster 4-4
2. Driver's front air bag 3-45
3. Engine Start/Stop button 6-8
4. Infotainment system 4-58
5. Hazard warning lamp switch 8-2
6. Climate control system 5-99
7. Air ventilation seat 3-20
8. Seat warmer 3-18
9. Heated steering wheel 5-41
10. Parking Safety button 7-139
11. Parking/View button 7-153
12. Transmission shift button 6-10
13. EPB (Electronic Parking Brake) switch ... 6-19
14. Auto Hold switch 6-23
15. Drive mode button 6-46
16. Passenger's front air bag 3-45
17. Glove box 5-119
18. USB port 5-131
19. Power outlet 5-121
20. USB charger 5-122
21. Wireless charging system pad 5-123
22. DBC (Downhill Brake Control) button . 6-33
23. HEV button 1-53
24. AWD lock button 6-37

STEERING WHEEL CONTROL OVERVIEW - PLUG-IN HYBRID VEHICLE



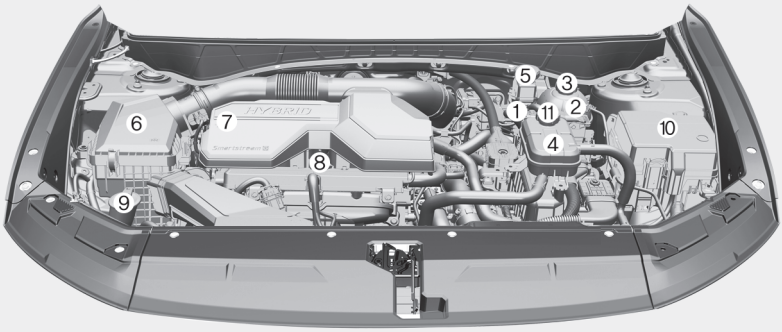
The actual shape may differ from the illustration.

ONX4PH011006N

1. Lighting control lever 5-84
2. Wiper and washer control lever..... 5-95
3. Paddle shifter..... 6-15
4. Audio remote control buttons 5-132
5. Bluetooth® hands-free phone button 5-134
6. Cluster display control 4-23
7. Lane Driving Assist button..... 7-33
8. Driving Assist button 7-58
9. Vehicle Distance button 7-79

ENGINE COMPARTMENT OVERVIEW - PLUG-IN HYBRID VEHICLE

■ Smartstream G 1.6 T-GDi PHEV



The actual engine compartment in the vehicle may differ from the illustration.

ONX4PH091001N

1. ECU
2. Engine coolant reservoir 9-18
3. Engine coolant reservoir cap 9-18
4. Inverter coolant reservoir..... 9-18
5. Brake fluid reservoir 9-21
6. Air cleaner 9-23
7. Engine oil filler cap 9-16
8. Engine oil dipstick 9-16
9. Windshield washer fluid reservoir 9-22
10. Fuse box 9-54
11. Inverter coolant reservoir cap 9-18

DIMENSIONS

Items	in. (mm)	
Overall length	182.3 (4,630) / 182.7 (4,640) (N Line)	
Overall width	73.4 (1,865)	
Overall height	66.34 (1,685)	
Wheel tread	Front	Rear
	17" : 63.8 (1,620)	17" : 64.05 (1,627)
	19" : 63.58 (1,615)	19" : 63.9 (1,622)
Wheelbase	108.5 (2,755)	

ENGINE

Engine	Displacement cu. in (cc)	Bore x Stroke in. (mm)	Firing order	No. of cylinders
Smartstream G 1.6 T-GDi HEV/PHEV	97.51 (1,598)	2.97 x 3.5 (75.6 x 89.0)	1-3-4-2	In-line 4 cylinder

BULB WATTAGE

Light bulb				Bulb type	Wattage
Front	Headlight		High	LED	LED
			Low	LED	LED
	Daytime running lamp (DRL) / position lamp			LED	LED
	Turn signal lamp			LED	LED
	Side marker lamp			LED	LED
	Turn signal lamp (Outside mirror)			LED	LED
Rear	Type A	Tail lamp		P21/5W	5/21
		Tail/Stop lamp		P21/5W	5/21
	Type B	Tail lamp		LED	LED
		Tail/Stop lamp		LED	LED
	Turn signal lamp			PY21W	21
	Reverse lamp		Bulb type	P21W	21
			LED type	LED	LED
	Side marker lamp		Bulb type	P21/5W	5/21
			LED type	LED	LED
	License plate lamp		Type A	W5W	5
			Type B	LED	LED
	High mounted stop lamp			LED	LED
Interior	Map lamp		Type A	W10W	10
			Type B	LED	LED
	Room lamp*			FESTOON	10
	Personal lamp*			LED	LED
	Glove box lamp			W5W	5
	Sunvisor lamp			FESTOON	5
	Luggage compartment lamp			FESTOON	10

* : if equipped

TIRES AND WHEELS

Item	Tire size	Wheel size	Inflation pressure psi (kPa)				Wheel lug nut torque lbf·ft (N·m)
			Normal load		Maximum load		
			Front	Rear	Front	Rear	
Full size tire	235/65 R17	7.0J X 17	35 (240)		35 (240)		79~94 (107~127)
	235/55 R19	7.5J X 19					

NOTICE

- **It is permissible to add 3 psi (20 kPa) to the standard tire pressure specification if colder temperatures are expected soon. Tires typically lose 1 psi (7 kPa) for every 12°F(7°C) temperature drop. If extreme temperature variations are expected, recheck your tire pressure as necessary to keep them properly inflated.**
- **An air pressure generally decreases, as you drive up to a high-altitude area above sea level. Thus, if you plan to drive a high-altitude area, check the tire pressures in advance. If necessary, inflate them to a proper level (Air inflation per altitude: +2.4 psi/1 mile (+10 kPa/1 km)).**
- **Must do not exceed maximum inflation pressure shown on equipped tire sidewall.**

CAUTION

When replacing tires, ALWAYS use the same size, type, brand, construction and tread pattern supplied with the vehicle. If not, it can damage the related parts or make it work irregularly.

AIR CONDITIONING SYSTEM

Items		Weight of volume		Classification
Refrigerant oz. (g)	HEV	Front	19.40 (550) ± 0.88 (25)	R-1234yf
	PHEV		22.92 (650) ± 0.88 (25)	
Compressor lubricant oz. (g)	Front		5.29 (150) ± 0.35 (10)	POE

Contact an authorized HYUNDAI dealer.

VOLUME AND WEIGHT

Items	Smartstream G1.6 T-GDi HEV	Smartstream G1.6 T-Gdi PHEV
	AWD	AWD
Gross vehicle weight lbs. (kg)	4,861 (2,205)	5,247 (2,380)

Luggage volume			
Items		HEV	PHEV
SAE cu. ft (ℓ)	BEHIND 1ST ROW	74.5 (2,108)	66.3 (1,877)
	BEHIND 2ND ROW	38.7 (1,097)	31.9 (903)

RECOMMENDED LUBRICANTS AND CAPACITIES

To help achieve proper engine and powertrain performance and durability, use only lubricants of the proper quality. The correct lubricants also help promote engine efficiency that results in improved fuel economy.

These lubricants and fluids are recommended for use in your vehicle.

Lubricant		Volume	Classification
Engine oil *1 *2 (drain and refill)	Recommends 	5.07 US qt. (4.8 ℓ)	SAE 0W-20, API SN PLUS/SP or ILSAC GF-6
Automatic transmission fluid		6.34 US qt. (6 ℓ)	SK ATF SP4M-1, MICHANG ATF SP4M-1, S-OIL ATF SP4M-1, Hyundai Genuine ATF SP4M-1 or other brands meeting the above specification approved by HYUNDAI Motor Co.
Coolant		7.7 US qt. (7.3 ℓ)	Mixture of antifreeze and water (Phosphate-based Ethylene glycol coolant for aluminum radiator)
Inverter Coolant	HEV	1.79 US qt. (1.7 ℓ)	
	PHEV	6.76 US qt. (6.4 ℓ)	Contact an authorized Hyundai dealer/service partner
Rear differential oil (AWD)		0.56 ~ 0.67 US qt. (0.53~0.63 ℓ)	HYPOID GEAR OIL API GL-5, SAE 75W/85 (SK HCT-5 GEAR OIL 75W/85 or EQUIVALENT)
Transfer case oil (AWD)		0.65 ~ 0.71 US qt. (0.62~0.68 ℓ)	
Brake fluid *3		As required	SAE J1704 DOT-4 LV, FMVSS 116 DOT-4, ISO4925 CLASS-6
Fuel	HEV	13.7 US gal (52 ℓ)	Refer to “Fuel requirements” in chapter 1.
	PHEV	11 US gal (42 ℓ)	

*1 : Refer to the recommended SAE viscosity numbers on the next page.

*2 : Requires <API SN PLUS (or above) Full synthetic> grade engine oil. If a lower grade engine oil (mineral oil including Semi-synthetic) is used, then the engine oil and engine oil filter must be replaced as indicated severe maintenance condition.

*3 : To maintain the best braking performance and ABS/ESC performance, use genuine brake fluid that conform to specifications.

Recommended SAE Viscosity Number

NOTICE

- **Always be sure to clean the area around any filler plug, drain plug, or dipstick before checking or draining any lubricant. This is especially important in dusty or sandy areas and when the vehicle is used on unpaved roads. Cleaning the plug and dipstick areas will prevent dirt and grit from entering the engine and other mechanisms that could be damaged.**
- **Never add any additives to the engine oil. Engine oil additives can change the properties of engine oil and may cause serious engine failure.**

Engine oil viscosity (thickness) has an effect on fuel economy and cold weather operating (engine start and engine oil flowability). Lower viscosity engine oils can provide better fuel economy and cold weather performance, however, higher viscosity engine oils are required for satisfactory lubrication in hot weather. Using oils of any viscosity other than those recommended could result in engine damage.

When choosing an oil, consider the range of temperature your vehicle will be operated in before the next oil change. Proceed to select the recommended oil viscosity from the chart.

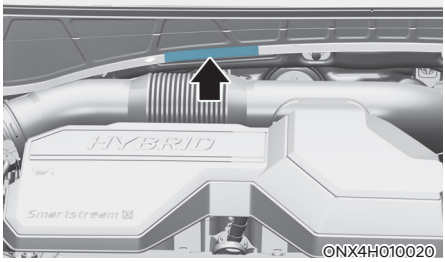
Temperature Range for SAE Viscosity Numbers										
Temperature	°C	-30	-20	-10	0	10	20	30	40	50
	(°F)	-10	0	20	40	60	80	100	120	
Smartstream G 1.6 T-GDi HEV/PHEV		0W-20								



An engine oil displaying this API Certification Mark conforms to the international Lubricant Specification Advisory Committee (ILSAC). It is recommended to only use engine oils that uphold this API Certification Mark.

VEHICLE IDENTIFICATION NUMBER (VIN)

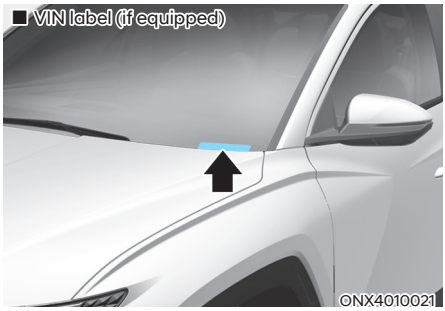
■ Frame number



The vehicle identification number (VIN) is the number used in registering your vehicle and in all legal matters pertaining to its ownership, etc.

The number is punched on the engine compartment frame and back side of the engine.

■ VIN label (if equipped)



The VIN is also on a plate attached to the top of the left side dashboard. The number on the plate can easily be seen through the windshield from outside.

VEHICLE CERTIFICATION LABEL



The vehicle certification label attached on the driver's (or front passenger's) side center pillar gives the vehicle identification number (VIN).

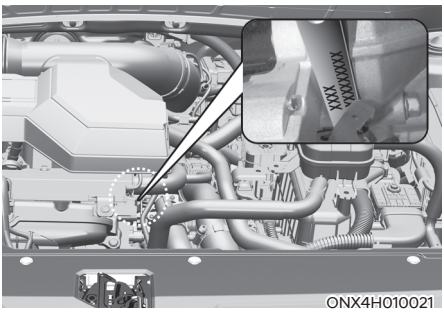
TIRE SPECIFICATION AND PRESSURE LABEL



The tires supplied on your new vehicle are chosen to provide the best performance for normal driving.

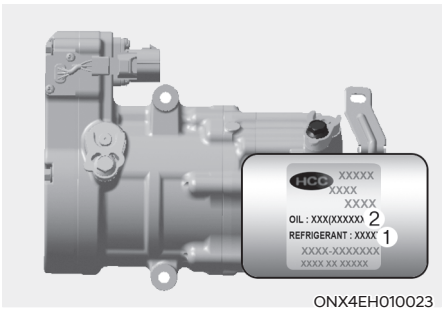
The tire label located on the driver's side center pillar gives the tire pressures recommended for your vehicle.

ENGINE NUMBER



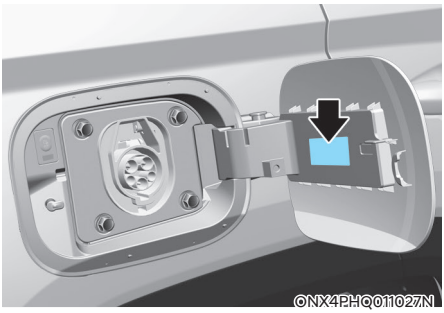
The engine number is stamped on the engine block as shown in the drawing.

AIR CONDITIONER COMPRESSOR LABEL



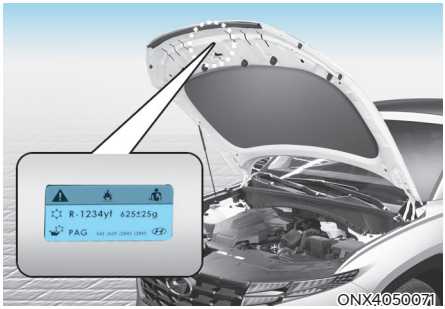
A compressor label informs you the type of compressor your vehicle is equipped with such as model, supplier part number, production number, refrigerant (1) and refrigerant oil (2).

CHARGING LABEL (IF EQUIPPED)



Charging label is located on the charging inlet cover's inside. For more details, refer to "Charging the plug-in hybrid vehicle" in the chapter 1.

AIR CONDITIONING REFRIGERANT LABEL



You can find out which air conditioning refrigerant is applied to your vehicle on the label located inside of the hood.

OPEN SOURCE SOFTWARE NOTICE (FOR PLUG-IN HYBRID VEHICLE)

This vehicle contains software with open source licenses.

Open source software information including the source code, copyright notices and referred license terms may be obtained on the website

https://www.hyundai.com/worldwide/opensource

Hyundai Motor Company will provide the open source code to you in storage medium such as CD-ROM for minimum charge covering the cost of performing source distribution upon email request to opensource@hyundai.com within a period of 3 years from the date of product purchase.

CONSUMER INFORMATION

This consumer information has been prepared in accordance with regulations issued by the National Highway Traffic Safety Administration of the U.S. Department of Transportation.Your HYUNDAI dealer will help answer any questions you may have as you read this information.

HYUNDAI motor vehicles are designed and manufactured to meet or exceed all applicable safety standards.

For your safety, however, we strongly urge you to read and follow all directions in this Owner's Manual, particularly the information under the headings "**NOTICE**", "**CAUTION**" and "**WARNING**".

If, after reading this manual, you have any questions regarding the operation of your vehicle, please contact the Hyundai Customer Care Center:

Hyundai Customer Care
P.O. Box 20850
Fountain Valley, CA 92728
800-633-5151
consumeraffairs@hmausa.com

Hyundai's Customer Care Center representatives are available Monday through Friday, between the hours of 6:00 AM and 5:00 PM PST
and Saturday between 6:30 AM and 3:00 PM PST (English).

For Customer Care assistance in Spanish or Korean, representatives are available Monday through Friday between 6:30 AM and 3:00 PM PST.

REPORTING SAFETY DEFECTS

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying HYUNDAI MOTOR AMERICA.

To contact NHTSA, you may call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (TTY: 1-800-424-9153);

go to http://www.safercar.gov;

download the SaferCar mobile application;

or write to: Administrator, NHTSA
1200 New Jersey Ave, SE,
West Building Washington, D.C. 20590.

You can also obtain other information about motor vehicle safety from http://www.safercar.gov.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or HYUNDAI MOTOR AMERICA.

3. Seats & Safety System

This chapter provides you with important information about how to protect yourself and your passengers. It explains how to properly use your seats and seat belts, and how your air bags work. Additionally, this chapter explains how to properly restrain infants and children in your vehicle.

Important Safety Precautions 3-2
- Always Wear Your Seat Belt 3-2
- Restrain All Children 3-2
- Air Bag Hazards 3-2
- Driver Distraction 3-2
- Control Your Speed 3-2
- Keep Your Vehicle in Safe Condition 3-2

Seats 3-3
- Safety Precautions 3-4
- Front Seats 3-5
- Rear Seats 3-11
- Head Restraint 3-14
- Seat Warmers 3-18
- Air Ventilation Seat 3-20

Seat Belts 3-22
- Seat Belt Safety Precautions 3-22
- Seat Belt Warning Light 3-23
- Seat Belt Restraint System 3-24
- Additional Seat Belt Safety Precautions 3-29
- Care of Seat Belts 3-31

Child Restraint System (CRS) 3-32
- Our Recommendation: Children Always in the Rear 3-32
- Selecting a Child Restraint System (CRS) 3-33
- Installing a Child Restraint System (CRS) 3-35

Air Bag - Supplemental Restraint System 3-43
- Where are the Air Bags? 3-45
- How does the Air Bags System Operate? 3-49
- What to Expect after an Air Bag Inflates 3-52
- Occupant Classification System (OCS) 3-53
- Why didn't my air bag go off in a collision? 3-59
- SRS Care 3-64
- Additional Safety Precautions 3-65
- Air Bag Warning Labels 3-65

IMPORTANT SAFETY PRECAUTIONS

You will find many safety precautions and recommendations throughout this section, and throughout this manual. The safety precautions in this section are among the most important.

Always Wear Your Seat Belt

A seat belt is your best protection in all types of accidents. Air bags are designed to supplement seat belts, not to replace them. So even though your vehicle is equipped with air bags, ALWAYS make sure you and your passengers wear your seat belts, and wear them properly.

Restrain All Children

All children under age 13 should ride in your vehicle properly restrained in a rear seat, not the front seat. Infants and small children should be restrained in an appropriate Child Restraint System. Larger children should use a booster seat with the lap/shoulder belt until they can use the seat belt properly without a booster seat.

Air Bag Hazards

While air bags can save lives, they can also cause serious or fatal injuries to occupants who sit too close to them, or who are not properly restrained. Infants, young children, and short adults are at the greatest risk of being injured by an inflating air bag. Follow all instructions and warnings in this manual.

Driver Distraction

Driver distraction presents a serious and potentially deadly danger, especially for inexperienced drivers. Safety should be the first concern when behind the wheel and drivers need to be aware of the wide array of potential distractions, such as drowsiness, reaching for objects, eating, personal grooming, other passengers, and using mobile phones.

Drivers can become distracted when they take their eyes and attention off the road or their hands off the wheel to focus on activities other than driving. To reduce your risk of distraction and an accident:

- Set up your mobile devices (for example, MP3 players, phones, navigation units, etc.) ONLY when your vehicle is parked or safely stopped.
- ONLY use your mobile device when allowed by laws and conditions permit safe use. NEVER text or email while driving. Most states have laws prohibiting drivers from texting. Some states and cities also prohibit drivers from using handheld phones.
- NEVER let the use of a mobile device distract you from driving. You have a responsibility to your passengers and others on the road to always drive safely, with your hands on the wheel as well as your eyes and attention on the road.

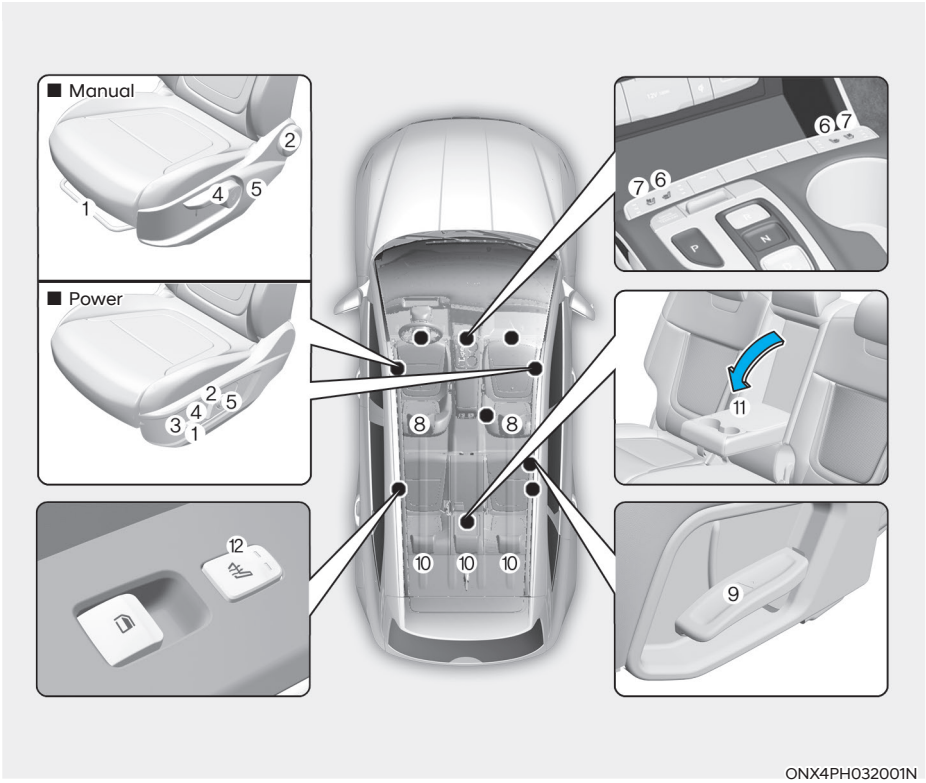
Control Your Speed

Excessive speed is a major factor in crash injuries and deaths. Generally, the higher the speed, the greater the risk, but serious injuries can also occur at lower speeds. Never drive faster than is safe for current conditions, regardless of the maximum speed posted.

Keep Your Vehicle in Safe Condition

Having a tire blowout or a mechanical failure can be extremely hazardous. To reduce the possibility of such problems, check your tire pressures and condition frequently, and perform all regularly scheduled maintenance.

SEATS



ONX4PH032001N

Information

The information provided may differ depending on which functions are applicable to your vehicle.

Front seat

(1) Forward and rearward
(2) Seatback angle
(3) Seat cushion angle*
(4) Seat height
(5) Lumbar support (Driver's seat)*
(6) Seat warmer*
(7) Air ventilation seat*
(8) Headrest

Rear seats

(9) Seatback angle and folding
(10) Headrest
(11) Armrest*
(12) Seat warmer *

*: if equipped

Safety Precautions

Adjusting the seats so that you are sitting in a safe and comfortable position plays an important role for the safety of the driver and passengers, as much as seat belts and air bags when in an accident.

WARNING

Do not use a cushion that reduces friction between the seat and the passenger. The passenger's hips may slide under the lap portion of the seat belt during an accident or a sudden stop.

Serious or fatal internal injuries could result because the seat belt cannot operate properly.

Air bags

You can take steps to reduce the risk of being injured by an inflating air bag. Sitting too close to an air bag greatly increases the risk of injury in the event the air bag inflates.

The National Highway Traffic Safety Administration (NHTSA) recommends that drivers allow at least 10 inches (25 cm) between the center of the steering wheel and their chest.

WARNING

To reduce the risk of serious injury or death from an inflating air bag, take the following precautions:

- **Adjust the driver's seat as far to the rear as possible while maintaining the ability to control the vehicle.**
- **Adjust the front passenger seat as far to the rear as possible.**
- **Hold the steering wheel by the rim with your hands at the 9 o'clock and 3 o'clock positions to minimize the risk of injuries to your hands and arms.**
- **NEVER place anything or anyone between you and the air bag.**
- **Do not allow the front passenger to place feet or legs on the dashboard to minimize the risk of leg injuries.**

Seat belts

Always fasten your seat belt before starting any trip. At all times, passengers should sit upright and be properly restrained. Infants and small children must be restrained in appropriate Child Restraint Systems. Children who have outgrown a booster seat and adults must be restrained using the seat belts.

WARNING

Take the following precautions when adjusting your seat belt:

- **NEVER use one seat belt for more than one occupant.**
- **Always position the seatback upright with the lap portion of the seat belt snug and low across the hips.**
- **NEVER allow children or small infants to ride on a passenger's lap.**
- **Do not route the seat belt across your neck, across sharp edges, or reroute the shoulder strap away from your body.**
- **Do not allow the seat belt to become caught or jammed.**

Front Seats

WARNING

Take the following precautions when adjusting your seat:

- **NEVER attempt to adjust the seat while the vehicle is moving. The seat could respond with unexpected movement and may cause loss of vehicle control resulting in an accident.**
- **Do not place anything under the front seats. Loose objects in the driver's foot area could interfere with the operation of the foot pedals, causing an accident.**
- **Do not allow anything to interfere with the normal position and proper locking of the seatback.**
- **Do not place a cigarette lighter on the floor or seat. When you operate the seat, gas may exit out of the lighter causing a fire.**
- **Use extreme caution when picking up small objects trapped under the seats or between the seat and the center console. Your hands might be cut or injured by the sharp edges of the seat mechanism.**
- **If there are occupants in the rear seats, be careful while adjusting the front seat position.**
- **Make sure that the seat is locked in place after the adjustment. If not, the seat might move unexpectedly resulting in an accident.**

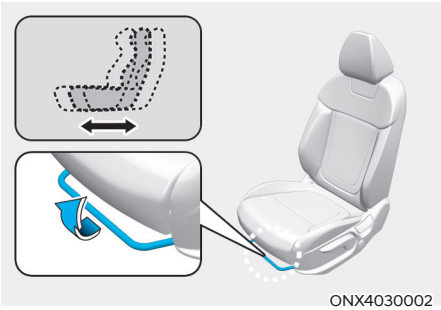
CAUTION

To prevent injury:

- **Do not adjust your seat while wearing your seat belt. Moving the seat cushion forward may cause strong pressure on your abdomen.**
- **Do not allow your hands or fingers to get caught in the seat mechanisms while the seat is moving.**

Manual adjustment

The front seat can be adjusted by using the levers located underneath the seat cushion. Before driving, adjust the seat to the proper position so that you can easily control the steering wheel, foot pedals and controls on the instrument panel.

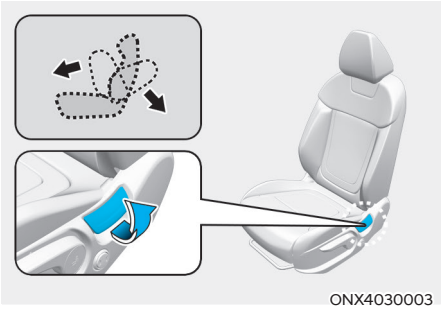


ONX4030002

Forward and rearward adjustment

To move the seat forward or rearward:

1. Pull up the seat slide adjustment lever and hold it.
2. Slide the seat to the position you desire.
3. Release the lever and make sure the seat is locked in place. Move forward and rearward without using the lever. If the seat moves, it is not locked properly.



ONX4030003

Seatback angle

To recline the seatback:

1. Lean forward slightly and lift up the seatback lever.
2. Carefully lean back on the seat and adjust the seatback to the position you desire.
3. Release the knob and make sure the seatback is locked in place.

Reclining seatback

Sitting in a reclined position when the vehicle is in motion can be dangerous. Even when buckled up, the protections of your restraint system (seat belts and/or air bags) is greatly reduced by reclining your seatback.

WARNING

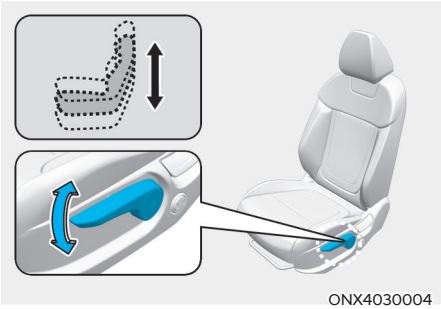
NEVER ride with a reclined seatback when the vehicle is moving.

Riding with a reclined seatback increases your chance of serious or fatal injuries in the event of a collision or sudden stop.

Drivers and passengers should ALWAYS sit well back in their seats, properly belted, and with the seatbacks upright.

Seat belts must be snug against your hips and chest to work properly. When the seatback is reclined, the shoulder belt cannot do its job because it will not be snug against your chest. Instead, it will be in front of you. During an accident, you could be thrown into the seat belt, causing neck or other injuries.

The more the seatback is reclined, the greater chance the passenger's hips will slide under the lap belt or the passenger's neck will strike the shoulder belt.

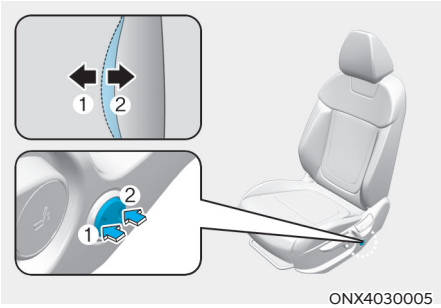


ONX4030004

Seat height (if equipped)

To change the height of the seat:

- Push down the lever several times, to lower the seat.
- Pull up the lever several times, to raise the seat.



ONX4030005

Lumbar support (for driver's seat, if equipped)

- The lumbar support can be adjusted by pressing the lumbar support switch.
- Press the front portion of the switch (1) to increase support or the rear portion of the switch (2) to decrease support.

Power adjustment (if equipped)

The front seat can be adjusted by using the control switches located on the outside of the seat cushion. Before driving, adjust the seat to the proper position so that you can easily control the steering wheel, foot pedals and controls on the instrument panel.

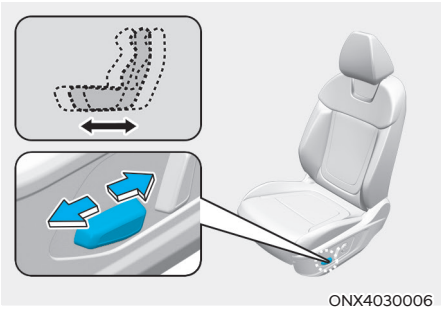
WARNING

NEVER allow children in the vehicle unattended. The power seats are operable when the vehicle is turned off.

NOTICE

To prevent damage to the seats:

- **Always stop adjusting the seats when the seat has been adjusted as far forward or rearward as possible.**
- **Do not adjust the seats longer than necessary when the vehicle is turned off. This may result in unnecessary battery drain.**
- **Do not operate two or more seats at the same time. This may result in an electrical malfunction.**

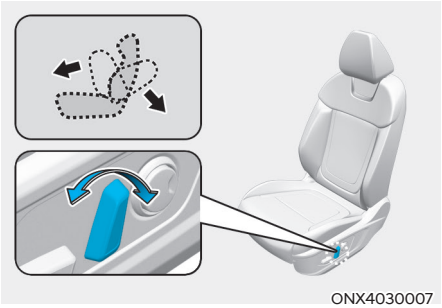


ONX4030006

Forward and rearward adjustment

To move the seat forward or rearward:

1. Push the control switch forward or rearward.
2. Release the switch once the seat reaches the desired position.



ONX4030007

Seatback angle adjustment

To recline the seatback:

1. Push the control switch forward or rearward.
2. Release the switch once the seatback reaches the desired position.

Reclining seatback

Sitting in a reclined position when the vehicle is in motion can be dangerous. Even when buckled up, the protections of your restraint system (seat belts and air bags) is greatly reduced by reclining your seatback.

WARNING

NEVER ride with a reclined seatback when the vehicle is moving.

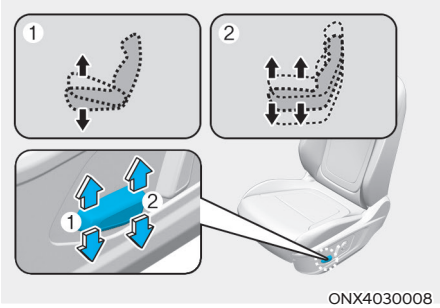
Riding with a reclined seatback increases your chance of serious or fatal injuries in the event of a collision or sudden stop.

Driver and passengers should ALWAYS sit well back in their seats, properly belted, and with the seatbacks upright.

Seat belts must be snug against your hips and chest to work properly. When the seatback is reclined, the shoulder belt cannot do its job because it will not be snug against your chest. Instead, it will be in front of you. During an accident, you could be thrown into the seat belt, causing neck or other injuries.

The more the seatback is reclined, the greater chance the passenger's hips will slide under the lap belt or the passenger's neck will strike the shoulder belt.

Seat cushion tilt/height adjustment



Seat cushion tilt (1) (1, if equipped)

To change the angle of the front part of the seat cushion:

Push the front portion of the control switch up to raise or down to lower the front part of the seat cushion.

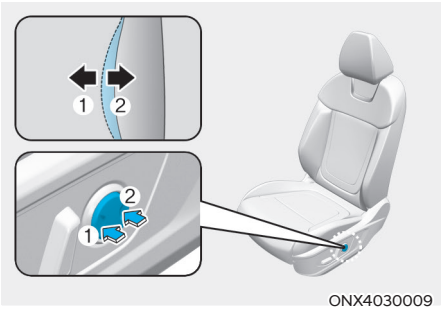
Release the switch once the seat reaches the desired position.

Seat height (2)

To change the height of the seat cushion:

Push the rear portion of the control switch up to raise or down to lower the height of the seat cushion.

Release the switch once the seat reaches the desired position.

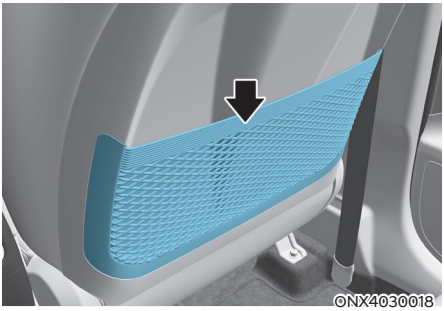


Lumbar support (for driver's seat, if equipped)

To adjust the lumbar support:

1. Press the front portion of the switch (1) to increase support or the rear portion of the switch (2) to decrease support.
2. Release the switch once the lumbar support reaches the desired position.

Seatback pocket

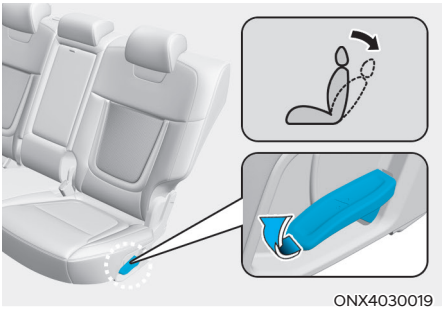


The seatback pocket is provided on the back of the front seatbacks.

CAUTION

Do not put heavy or sharp objects in the seatback pockets. In an accident they could come loose from the pocket and injure occupants.

Rear Seats


ONX4030019

Seatback angle (2nd row seat)

To recline the seatback:

1. Pull up the seatback recline lever.
2. Hold the lever and adjust the seatback of the seat to the position you desire.
3. Release the lever and make sure the seatback is locked in place. (The lever MUST return to its original position for the seatback to lock.)

Folding the rear seat

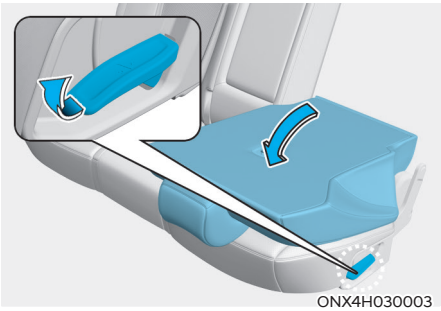
The rear seatbacks can be folded to facilitate carrying long items or to increase the luggage capacity of the vehicle.

WARNING

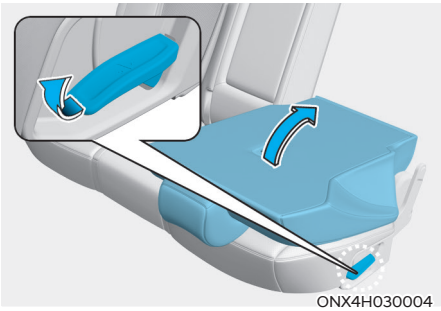
- **Never allow passengers to sit on top of the folded down seatback while the vehicle is moving. This is not a proper seating position and no seat belts are available for use. This could result in serious injury or death in case of an accident or sudden stop.**
- **Objects carried on the folded down seatback should not extend higher than the top of the front seatbacks. This could allow cargo to slide forward and cause injury or damage during sudden stops.**

To fold down the rear seatback:

1. Set the front seatback to the upright position and if necessary, slide the front seat forward.
2. Lower the rear head restraints to the lowest position.
3. Route the seat belt webbing through the rear seat belt guides to prevent the belts from being trapped behind or under the seats.


ONX4H030003

4. Pull on the seatback folding lever (2nd row seat), then fold the seat toward the front of the vehicle. When you return the seatback to its upright position, always be sure it has locked into position by pushing on the top of the seatback.


ONX4H030004

5. To use the rear seat, lift and pull the seatback backward by pulling the folding lever or the strap. Pull the seatback firmly until it clicks into place. Make sure the seatback is locked in place.
6. Return the rear seat belt to the proper position.

WARNING

When returning the rear seatback from a folded to an upright position, hold the seatback and return it slowly. Ensure that the seatback is completely locked into its upright position by pushing on the top of the seatback. In an accident or sudden stop, the unlocked seatback could allow cargo to move forward with great force and enter the passenger compartment, which could result in serious injury or death.

WARNING

Do not place objects in the rear seats, since they cannot be properly secured and may hit vehicle occupants in a collision causing serious injury or death.

WARNING

Make sure the engine is off, the gear shifted to P (Park), and the parking brake is securely applied whenever loading or unloading cargo. Failure to take these steps may allow the vehicle to move if the shift button is inadvertently pressed to another position.

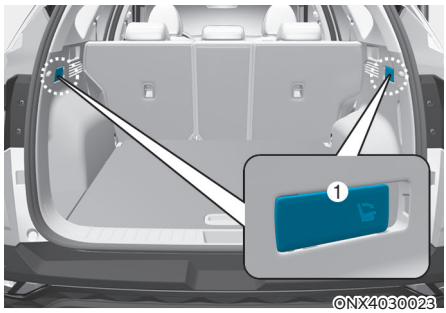
CAUTION

- **Be careful when loading cargo through the rear passenger seats to prevent damage to the vehicle interior.**
- **When cargo is loaded through the rear passenger seats, ensure the cargo is properly secured to prevent it from moving while driving.**

WARNING

Cargo should always be secured to prevent it from being thrown about the vehicle in a collision and causing injury to the vehicle occupants. Do not place objects in the rear seats, since they cannot be properly secured and may hit the front seat occupants in a collision.

Seatback remote folding/unfolding





Push the rear seats back folding switch (1) located in the both sides in the cargo area.

WARNING

Rear seat folding

Do not fold the rear seats when occupied with passengers, pets, or luggage. Injury or damage may occur.

Armrest



The armrest is located in the center of the rear seat. Pull the armrest down from the seatback to use it.

Rear occupant alert system (rear seats) (if equipped)

This function alerts the driver when he or she gets out of a car with passengers still remaining in the rear seats.

If the front door is opened while passengers are in the rear seats, a warning message will appear on the cluster panel as a reminder to check to rear seats. If movement is detected in the rear seats after locking all doors, a second warning will alert the driver.

Make sure to check for passengers in the rear seats before leaving the vehicle.

For more information, refer to the “Rear occupant alert system” in chapter 5.

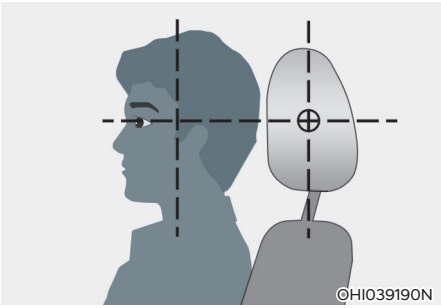
Head Restraint

The vehicle's front and rear seats have adjustable head restraints. The head restraints provide comfort for passengers, but more importantly they are designed to help protect passengers from whiplash and other neck and spinal injuries during an accident, especially in a rear impact collision.

WARNING

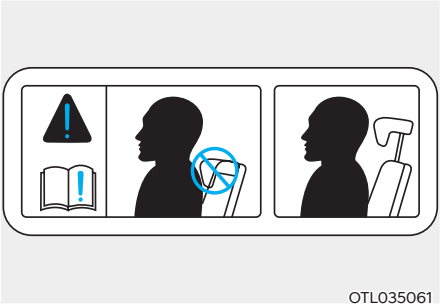
To help reduce, the risk of serious injury or death in an accident, take the following precautions when adjusting your head restraints:

- **Always properly adjust the head restraints for all passengers BEFORE starting the vehicle.**
- **NEVER let anyone ride in a seat with the head restraint removed or reversed.**



- **Adjust the head restraints so the middle of the head restraint is at the same height as the height of the top of the eyes.**
- **NEVER adjust the head restraint position of the driver's seat when the vehicle is in motion.**
- **Adjust the head restraint as close to the passenger's head as possible. Do not use a seat cushion that holds the body away from the seatback.**
- **Make sure the head restraint locks into position after adjusting it.**

WARNING



When sitting on the rear seat, do not adjust the height of the head restraint to the lowest position.

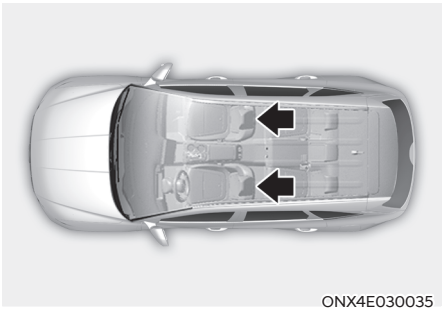
CAUTION

When there is no occupant in the rear seats, adjust the height of the head restraint to the lowest position. The rear seat head restraint can reduce the visibility of the rear area.

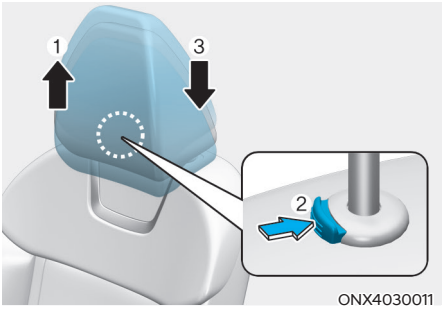
NOTICE

To prevent damage, NEVER hit or pull on the head restraints.

Front seat head restraints


ONX4E030035

The driver's and front passenger's seats are equipped with adjustable head restraints for the passengers safety and comfort.



ONX4030011

Adjusting the height up and down

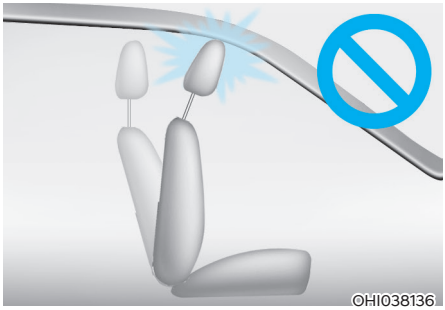
To raise the head restraint:

1. Pull it up to the desired position (1).

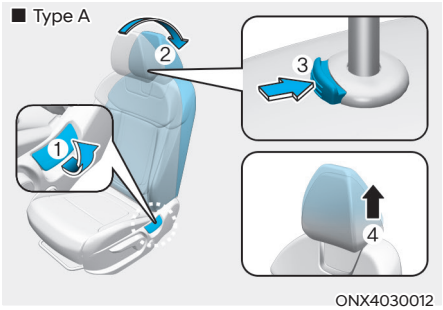
To lower the head restraint:

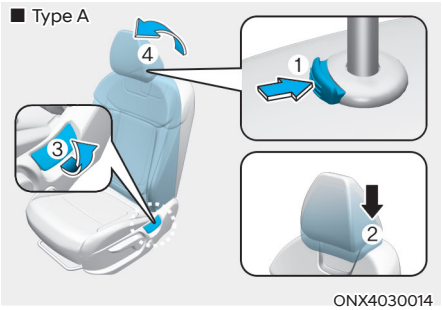
1. Push and hold the release button (2) on the head restraint support.
2. Lower the head restraint to the desired position (3).

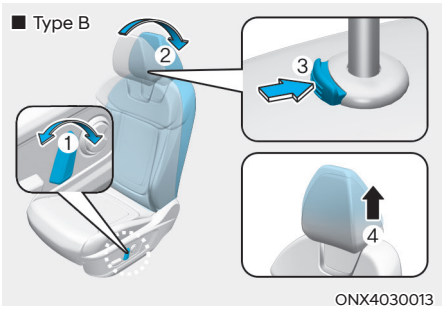
NOTICE

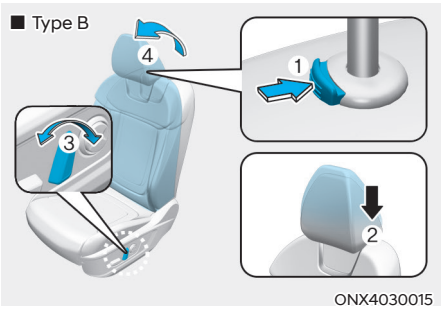

OHI038136

If you recline the seatback towards the front with the head restraint and seat cushion raised, the head restraint may come in contact with the sunvisor or other parts of the vehicle.









Removal/Reinstall

To remove the head restraint:

1. Recline the seatback (2) with using the seatback angle knob or switch (1).
2. Raise the head restraint as far as it can go.
3. Press the head restraint release button (3) while pulling the head restraint up (4).

WARNING

NEVER allow anyone to travel in a seat with the head restraint removed.

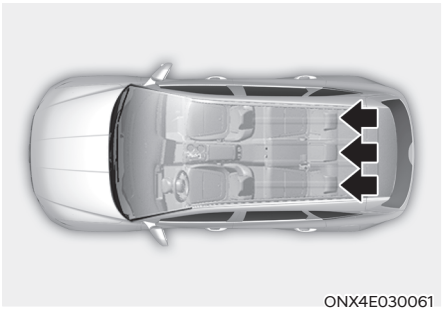
To reinstall the head restraint :

1. Recline the seatback.
2. Put the head restraint poles (2) into the holes while pressing the release button (1).
3. Adjust the head restraint to the appropriate height.
4. Recline the seatback (4) with the seatback angle knob or switch (3).

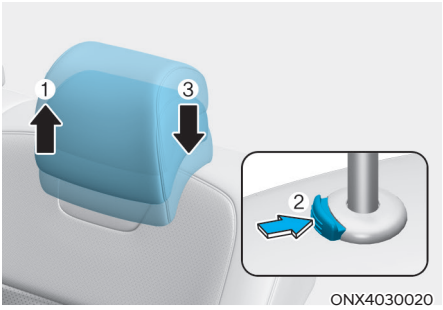
WARNING

Always make sure the head restraint locks into position after reinstalling and adjusting it properly.

Rear seat head restraints


ONX4E030061

The rear seats are equipped with head restraints in all the seating positions for the passenger's safety and comfort.



ONX4030020

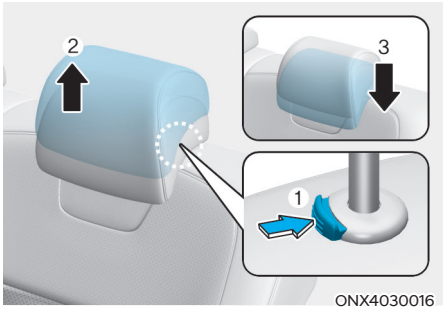
Adjusting the height up and down

To raise the head restraint:

1. Pull it up to the desired position (1).

To lower the head restraint:

1. Push and hold the release button (2) on the head restraint support.
2. Lower the head restraint to the desired position (3).



ONX4030016

Removal/Reinstallation

To remove the head restraint:

1. Raise the head restraint as far as it can go.
2. Press the head restraint release button (1) while pulling the head restraint up (2).

To reinstall the head restraint:

1. Put the head restraint poles into the holes (3) while pressing the release button (1).
2. Adjust the head restraint to the appropriate height.

Seat Warmers (if equipped)

Seat warmers are provided to warm the seats during cold weather.

During mild weather or under conditions where the operation of the seat warmer is not needed, keep the seat warmers OFF.

WARNING

The seat warmers can cause a SERIOUS BURN, even at low temperatures and especially if used for long periods of time.

Passengers must be able to feel if the seat is becoming too warm so they can turn it off, if needed.

People who cannot detect temperature change or pain to the skin should use extreme caution, especially the following types of passengers:

- **Infants, children, elderly or disabled persons, or hospital outpatients.**
- **People with sensitive skin or who burn easily.**
- **Fatigued individuals.**
- **Intoxicated individuals.**
- **People taking medication that can cause drowsiness or sleepiness.**

WARNING

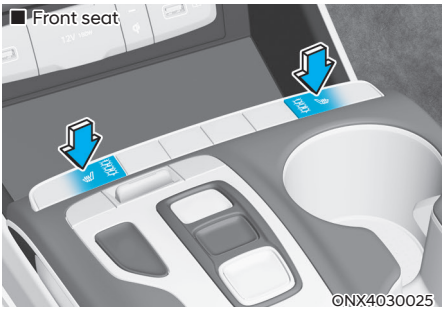
NEVER place anything on the seat that insulates against heat when the seat warmer is in operation, such as a blanket or seat cushion. This may cause the seat warmer to overheat, causing a burn or damage to the seat.

NOTICE

To prevent damage to the seat warmers and seats:

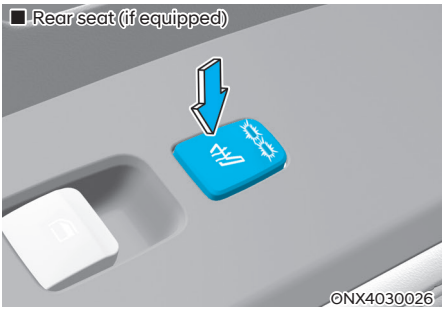
- **Never use a solvent such as paint thinner, benzene, alcohol or gasoline to clean the seats.**
- **Do not place heavy or sharp objects on seats equipped with seat warmers.**
- **Do not change the seat cover. It may damage the seat warmer.**

■ Front seat



ONX4030025

■ Rear seat (if equipped)



ONX4030026

While the engine is running, push either of the switches to warm the driver's seat or front passenger's seat.

During mild weather or under conditions where the operation of the seat warmer is not needed, keep the switches in the OFF position.

- Manual temperature control

  Each time you push the switch, the temperature setting of the seat is changed as follows :

  - Front seat

    OFF → HIGH ( ) → MEDIUM ( ) → LOW ( ) → OFF

  - Rear seat

    OFF → HIGH ( ) → LOW ( ) → OFF

- Automatic temperature control

  The seat warmer starts to automatically control the seat temperature in order to prevent low-temperature burns after being manually turned ON.

  - Front seat

    OFF → HIGH ( ) → 30 MIN → MEDIUM ( ) → 60 MIN → LOW ( ) → OFF

  - Rear seat

    OFF → HIGH ( ) → 30 MIN → LOW ( ) → OFF

  If HIGH temperature is manually selected again, the temperature will be controlled automatically.

- When pressing the switch for more than 1.5 seconds with the seat warmer operating, the seat warmer will turn OFF.
- The seat warmer defaults to the OFF position whenever the ignition switch is ON.

- Auto Comfort Control (for driver's seat) (if equipped)
  - The seat warmer automatically controls the seat temperature depending on the ambient temperature and the set climate control temperature when the engine is running. If the seat warmer switch is pushed, the seat warmer will have to be controlled manually.

    To use this function, it must be activated from the Settings menu in the infotainment system screen.
  - The seat warmer defaults to the OFF position whenever the ignition switch is ON. However, if the Auto Comfort Control function is ON, the driver's seat warmer will turn on and off depending on the ambient temperature and the set climate control temperature.

Information

The infotainment system may change after software updates. For more information, refer to the user's manual provided in the infotainment system and the quick reference guide.

Information

With the seat warmer switch in the ON position, the heating system in the seat turns off or on automatically depending on the seat temperature.

Air Ventilation Seat (if equipped)



The air ventilation seats are provided to cool the front seats by blowing air through small vent holes on the surface of the seat cushions and seatbacks.

When the operation of the air ventilation seat is not needed, keep the switches in the OFF position.

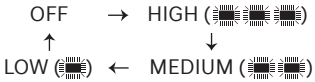
While the engine is running, push the switch to cool the driver's seat or the front passenger's seat (if equipped).

NOTICE

To prevent damage to the air ventilation seats:

- **Never use a solvent such as paint thinner, benzene, alcohol or gasoline to clean the seats.**
- **Avoid spilling liquids on the surface of the front seats and seatbacks; this may cause the air vent holes to block and not work properly.**
- **Do not place materials such as plastic bags or newspapers under the seats. They may block the air intake causing the malfunction of the air vent.**
- **Do not change the seat covers. It may damage the air ventilation seat.**
- **If the air vents do not operate, restart the vehicle. If there is no change, Have your vehicle inspected by an authorized HYUNDAI dealer.**

- Each time you push the switch, the airflow changes as follows:



- When pressing the switch for more than 1.5 seconds with the air ventilation seat operating, the operation will turn OFF.
- The air ventilation seat defaults to the OFF position whenever the ignition switch is placed to the ON position.
- Auto Comfort Control (for driver's seat) (if equipped)
  - The air ventilation seat automatically controls the seat temperature depending on the ambient temperature and the set climate control temperature when the engine is running. If the air ventilation seat switch is pushed, the air ventilation seat will have to be controlled manually.

    To use this function, it must be activated from the Settings menu in the infotainment system screen.
  - The air ventilation seat defaults to the OFF position whenever the ignition switch is ON. However, if the Auto Comfort Control function is ON, the air ventilation seat will turn on and off depending on the ambient temperature and the set climate control temperature.

Information

The infotainment system may change after software updates. For more information, refer to the user's manual provided in the infotainment system and the quick reference guide.

SEAT BELTS

This section describes how to use the seat belts properly. It also describes some of the things not to do when using seat belts.

Seat Belt Safety Precautions

Always fasten your seat belt and make sure all passengers have fastened their seat belts before starting any trip. Air bags are designed to supplement the seat belt as an additional safety device, not a replacement. Most states require all occupants of a vehicle to wear seat belts.

WARNING

Seat belts must be used by ALL passengers whenever the vehicle is moving. Take the following precautions when adjusting and wearing seat belts:

- **Children under the age of 13 should be properly restrained in the rear seats.**
- **Never allow children to ride in the front passenger seat, unless the air bag is deactivated. If a child is seated in the front passenger seat, move the seat as far back as possible. And the child must always be restrained in the seat properly.**
- **NEVER allow an infant or child to be carried on an occupant's lap.**
- **NEVER ride with the seatback reclined when the vehicle is moving.**
- **Do not allow children to share a seat or seat belt.**
- **Do not wear the shoulder belt under your arm or behind your back.**
- **NEVER wear a seat belt over fragile objects. If there is a sudden stop or impact, the seat belt can damage it.**
- **Do not use the seat belt if it is twisted. A twisted seat belt will not protect you properly in an accident.**
- **Do not use a seat belt if the webbing or hardware is damaged.**
- **Do not latch the seat belt into the buckles of other seats.**
- **NEVER unfasten the seat belt while driving. This may cause loss of vehicle control resulting in an accident.**
- **Make sure there is nothing in the buckle interfering with the seat belt latch mechanism, because any materials in the buckle can cause the seat belt not to be fastened securely.**
- **No modifications or additions should be made by the user which will either prohibit the seat belt adjusting devices from operating to remove slack, or prohibit the seat belt assembly from being adjusted to remove slack.**

WARNING

Damaged seat belts and seat belt assemblies will not operate properly. Always replace:

- **Frayed, contaminated, or damaged webbing.**
- **Damaged hardware.**
- **The entire seat belt assembly after it has been worn in an accident, even if damage to webbing or assembly is not apparent.**

Seat Belt Warning Light

Driver's seat belt warning

■ Instrument cluster



1GQA2083

As a reminder to the driver, the seat belt warning light will illuminate for approximately 6 seconds each time the ignition is ON position regardless of belt fastening. At this time, if the seat belt is not fastened a warning chime will sound for 6 seconds.

If you continue not to fasten the seat belt and you drive over 6 mph (9 km/h), the warning light will stay illuminated.

If you continue not to fasten the seat belt and you drive over 12 mph (20 km/h), the seat belt warning chime will sound for approximately 100 seconds and the corresponding warning light will blink.

If you unfasten the seat belt while driving under 12 mph (20 km/h), the seat belt warning light will illuminate until the seat belt is fastened.

If you unfasten the seat belt while driving over 12 mph (20 km/h), the seat belt warning chime will sound for approximately 100 seconds and the corresponding warning light will blink.

Front passenger's seat belt warning

As a reminder to the front passenger, the front passenger's seat belt warning lights will illuminate for approximately 6 seconds each time you place the ignition switch to the ON position regardless of belt fastening.

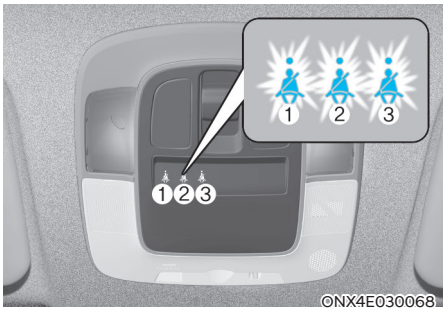
If you continue not to fasten the seat belt and you drive over 6 mph (9 km/h), the warning light will stay illuminated.

If you continue not to fasten the seat belt and you drive over 12 mph (20 km/h), the seat belt warning chime will sound for approximately 100 seconds and the corresponding warning light will blink.

If you unfasten the seat belt while driving under 12 mph (20 km/h), the seat belt warning light will illuminate until the seat belt is fastened.

If you unfasten the seat belt while driving over 12 mph (20 km/h), the seat belt warning chime will sound for approximately 100 seconds and the corresponding warning light will blink.

Seat belt warning light (for rear passenger's seat)



With the ignition switch ON, if the rear passenger's seat belt is not fastened, the corresponding seat belt warning light will illuminate for 70 seconds. But, if the seatbelt is fastened after 6 seconds, the corresponding seat belt warning light will immediately turn off.

If the seat belt is fastened, and then unfastened while driving below 12 mph (20 km/h), the corresponding seat belt warning light will illuminate for 70 seconds.

If the seat belt is fastened, and then unfastened while driving above 12 mph (20 km/h), the corresponding seat belt warning light will blink and the warning chime will sound for approximately 35 seconds.

WARNING

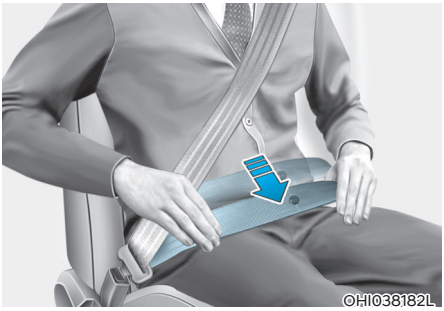
Riding in an improper position adversely affects the front passenger's seat belt warning system. It is important for the driver to instruct the passenger to be seated properly as instructed in this manual.

Information

- **Although the front passenger seat is not occupied, the seat belt warning light will blink or illuminate for 6 seconds.**
- **The front passenger's seat belt warning may operate when luggage is placed on the front passenger seat.**

Seat Belt Restraint System

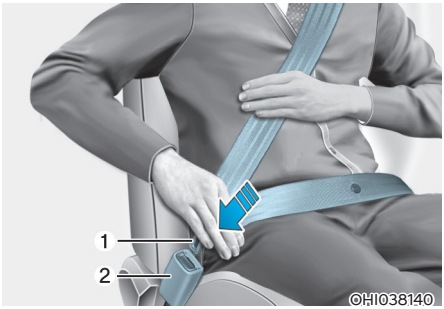
WARNING



Improperly positioned seat belts may increase the risk of serious injury in an accident. Take the following precautions when adjusting the seat belt:

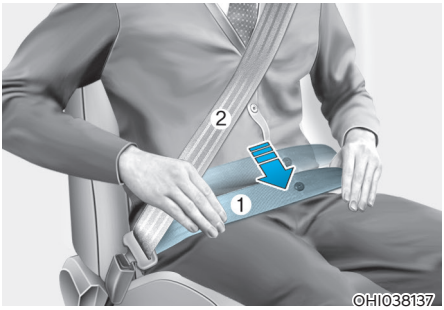
- **Position the lap portion of the seat belt as low as possible across your hips, not on your waist, so that it fits snugly. This allows your strong pelvic bones to absorb the force of the crash, reducing the chance of internal injuries.**
- **Position one arm under the shoulder belt and the other over the belt, as shown in the illustration.**
- **Always position the shoulder belt anchor into the locked position at the appropriate height.**
- **Never position the shoulder belt across your neck or face.**

Lap/shoulder belt



To fasten your seat belt:

Pull it out of the retractor and insert the metal tab (1) into the buckle (2). There will be an audible “click” when the tab locks into the buckle.



You should place the lap belt (1) portion across your hips and the shoulder belt (2) portion across your chest.

The seat belt automatically adjusts to the proper length after the lap belt portion is adjusted manually so that it fits snugly around your hips. If you lean forward in a slow, easy motion, the belt will extend and move with you.

If there is a sudden stop or impact, the belt will lock into position. It will also lock if you try to lean forward too quickly.

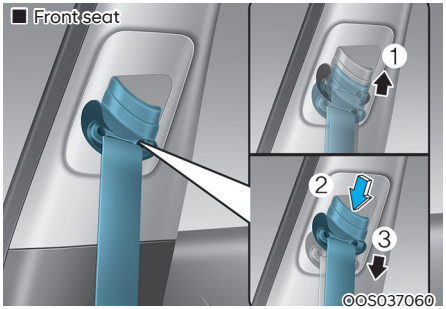
NOTICE

If you are not able to smoothly pull enough of the seat belt out from the retractor, firmly pull the seat belt out and release it. After release, you will be able to pull the belt out smoothly.

Height adjustment

You can adjust the height of the shoulder belt anchor to one of the four different positions for maximum comfort and safety.

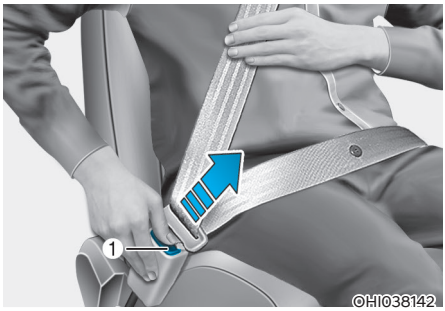
The shoulder portion should be adjusted so it lies across your chest and midway over your shoulder nearest the door, not over your neck.



To adjust the height of the seat belt anchor, lower or raise the height adjuster into an appropriate position.

To raise the height adjuster, pull it up (1). To lower it, push it down (3) while pressing the height adjuster button (2).

Release the button to lock the anchor into position. Try sliding the height adjuster to make sure that it has locked into position.

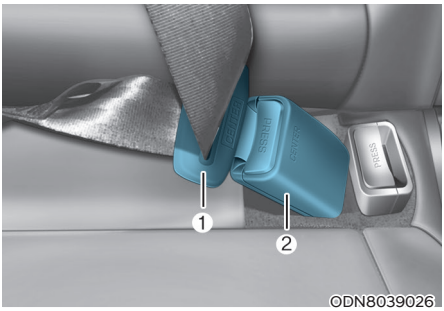


To release your seat belt:

Press the release button (1) in the locking buckle.

Once released, the belt should automatically draw back into the retractor. If this does not happen, check the belt to be sure it is not twisted, then try again.

Second row center seatbelt (3-point rear center seat belt)



1. Insert the tongue plate (1) into the buckle (2) until an audible “click" is heard, indicating the latch is locked. Make sure the belt is not twisted.

When using the rear center seat belt, the buckle with the “CENTER” mark must be used.

Information

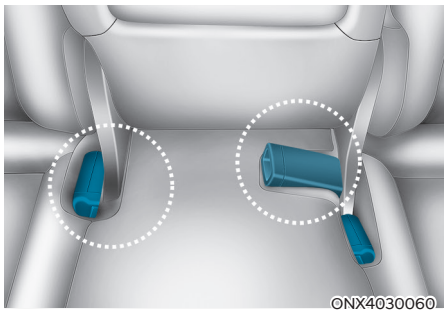
If you are not able to pull out the safety belt from the retractor, firmly pull the belt out and release it. After release, you will be able to pull the belt out smoothly.

WARNING

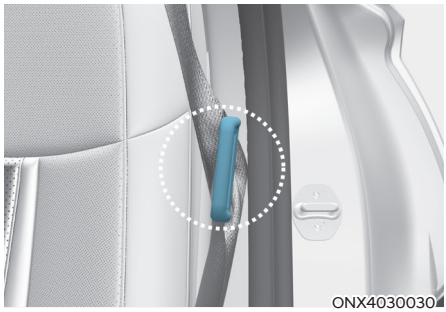
Make sure that the seatback is locked in place when using the rear center seat belt.

If not, the seatback may move when there is a sudden stop or collision, which could result in serious injury.

Stowing the rear seat belt



- The rear seat belt buckles can be stowed in the pocket between the rear seatback and cushion when not in use.



- Routing the seat belt webbing through the rear seat belt guides will help keep the belts from being trapped behind or under the seats.

  After inserting the seat belt, tighten the belt webbing by pulling it up.

CAUTION

When using the seat belt, use it after taking it out of the guides.

If you pull the seat belt when it is stored in the guides, it may damage the guides and/or belt webbing.

Pre-tensioner seat belt



Your vehicle is equipped with driver's and front passenger's Pre-tensioner Seat Belts(Retractor Pretensioner and Emergency Fastening Device System). The purpose of the pre-tensioner is to make sure the seat belts fit tightly against the occupant's body in certain frontal or side collision(s). The Emergency Fastening Device System may be activated in certain crashes where the frontal collision(s) is severe enough.

When the vehicle stops suddenly, or if the occupant tries to lean forward too quickly, the seat belt retractor will lock into position.

In certain frontal collisions, the pre-tensioner will activate and pull the seat belt into tighter contact against the occupant's body.

(1) Retractor Pretensioner

The purpose of the retractor pretensioner is to make sure that the shoulder belts fit in tightly against the occupant's upper body in certain frontal or side collision(s).

(2) Emergency Fastening Device System

The purpose of the Emergency Fastening Device System is to make sure that the pelvis belts fit in tightly against the occupant's lower body in certain frontal collision(s).

If the system senses excessive tension on the driver or passenger's seat belt when the pre-tensioner system activates, the load limiter inside the retractor pre-tensioner will release some of the pressure on the affected seat belt.

WARNING

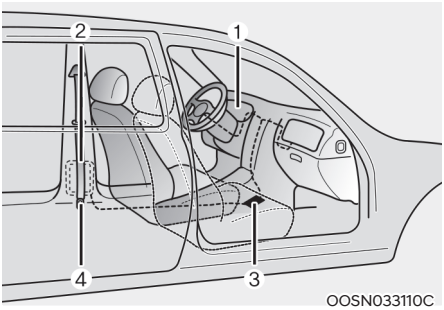
- **Always wear your seat belt and sit properly in your seat.**
- **Do not use the seat belt if it is loose or twisted. A loose or twisted seat belt will not protect you properly in an accident.**
- **Do not place anything near the buckle. This may adversely affect the buckle and cause it to function improperly.**
- **Always replace your pre-tensioners after activation or an accident.**
- **NEVER inspect, service, repair or replace the pre-tensioners by yourself. Have the pre-tensioners inspected, serviced, repaired or replaced by an authorized HYUNDAI dealer.**
- **Do not hit the seat belt assemblies.**

WARNING

Do not touch the pre-tensioner seat belt assemblies for several minutes after they have been activated. When the pre-tensioner seat belt mechanism deploys during a collision, the pre-tensioner can become hot and can burn you.

CAUTION

Body work on the front area of the vehicle may damage the pre-tensioner seat belt system. Therefore, Have the system serviced by an authorized HYUNDAI dealer.



OOSN033110C

The Pre-Tensioner Seat Belt System consists mainly of the following components. Their locations are shown in the illustration above:

(1) SRS air bag warning light
(2) Retractor pre-tensioner
(3) SRS control module
(4) Emergency fastening device

NOTICE

The sensor that activates the SRS control module is connected with the pre–tensioner seat belts. The SRS air bag warning light on the instrument cluster will illuminate for approximately 3~6 seconds after the Engine Start/Stop button is in the ON position, and then it should turn off.

If the pre-tensioner is not working properly, the warning light will illuminate even if the SRS air bag is not malfunctioning. If the warning light does not illuminate, stays illuminated or illuminates when the vehicle is being driven, have the pre-tensioner seat belts and/or SRS control module inspected by an authorized HYUNDAI dealer as soon as possible.

Information

- **Pre-tensioner seat belts may be activated in certain frontal or side collisions or rollover situations (if equipped with rollover sensor).**
- **When the pre-tensioner seat belts are activated, a loud noise may be heard and fine dust, which may appear to be smoke, may be visible in the passenger compartment. These are normal operating conditions and are not hazardous.**
- **Although it is non-toxic, the fine dust may cause skin irritation and should not be inhaled for prolonged periods. Wash all exposed skin areas thoroughly after an accident in which the pre-tensioner seat belts were activated.**

Additional Seat Belt Safety Precautions

Seat belt use during pregnancy

The seat belt should always be used during pregnancy. The best way to protect your unborn child is to protect yourself by always wearing the seat belt.

Pregnant women should always wear a lap-shoulder seat belt. Place the shoulder belt across your chest, routed between your breasts and away from your neck. Place the lap belt below your belly so that it fits SNUGLY across your hips and pelvic bone, under the rounded part of the belly.

WARNING

- **Pregnant women and patients are more vulnerable to any impacts on the abdomen during an abrupt stop or accident. If you are in an accident while pregnant, consult your doctor.**
- **To reduce the risk of serious injury or death to an unborn child during an accident, pregnant women should NEVER place the lap portion of the seat belt above or over the area of the abdomen where the unborn child is located.**

Seat belt use and children

Infant and small children

Most states have Child Restraint System laws which require children to travel in approved Child Restraint System devices, including booster seats. The age at which seat belts can be used instead of Child Restraint System differs among states, so you should be aware of the specific requirements in your states, and where you are travelling. Infant and Child Restraint System must be properly placed and installed in a rear seat.

For more information refer to the “Child Restraint Systems” section in this chapter.

WARNING

ALWAYS properly restrain infants and small children in a Child Restraint System appropriate for the child’s height and weight.

To reduce the risk of serious injury or death to a child and other passengers, NEVER hold a child in your lap or arms when the vehicle is moving. The violent forces created during an accident will tear the child from your arms and throw the child against the interior of the vehicle.

Small children are best protected from injury in an accident when properly restrained in the rear seat by a child restraint system that meets the requirements of the Federal Motor Vehicle Safety Standards. Before buying any child restraint system, make sure that it has a label certifying that it meets Federal Motor Vehicle Safety Standard FMVSS 213. The restraint must be appropriate for your child’s height and weight. Check the label on the child restraint for this information. Refer to the “Child Restraint Systems” section in this chapter.

Larger children

Children under age 13 and who are too large for a booster seat should always occupy the rear seat and use the available lap/shoulder belts. A seat belt should lie across the upper thighs and be snug across the shoulder and chest to restrain the child safely. Check belt fit periodically. A child’s squirming could put the belt out of position. In the event of an accident, children are afforded the best safety restrained by a proper Child Restraint System in the rear seats.

If a larger child over age 13 must be seated in the front seat, the child must be securely restrained by the available lap/shoulder belt and the seat should be placed in the rearmost position.

If the shoulder belt portion slightly touches the child’s neck or face, try placing the child closer to the center of the vehicle. If the shoulder belt still touches their face or neck, they need to be returned to an appropriate booster seat in the rear seat.

WARNING

- **Always make sure larger children’s seat belts are worn and properly adjusted.**
- **NEVER allow the shoulder belt to contact the child’s neck or face.**
- **Do not allow more than one child to use a single seat belt.**

Seat belt use and injured people

A seat belt should be used when an injured person is being transported. Consult a physician for specific recommendations.

One person per belt

Two people (including children) should never attempt to use a single seat belt. This could increase the severity of injuries in case of an accident.

Do not lie down

Sitting in a reclined position when the vehicle is in motion can be dangerous. Even when buckled up, the protections of your restraint system (seat belts and/or air bags) is greatly reduced by reclining your seatback.

Seat belts must be snug against your hips and chest to work properly.

During an accident, you could be thrown into the seat belt, causing neck or other injuries.

The more the seat back is reclined, the greater the chance for the passenger's hips to slide under the lap belt or the passenger's neck to strike the shoulder belt.

WARNING

- **NEVER ride with a reclined seatback when the vehicle is moving.**
- **Riding with a reclined seatback increases your chance of serious or fatal injuries in the event of a collision or sudden stop.**
- **Driver and passengers should always sit well back in their seats, with the seatbacks upright and should be belted properly.**

Care of Seat Belts

Seat belt systems should never be disassembled or modified. In addition, care should be taken to assure that seat belts and belt hardware are not damaged by seat hinges, doors or other abuse.

Periodic inspection

All seat belts should be inspected periodically for wear or damage of any kind. Any damaged parts should be replaced as soon as possible.

Keep belts clean and dry

Seat belts should be kept clean and dry. If belts become dirty, they can be cleaned by using a mild soap solution and warm water. Bleach, dye, strong detergents or abrasives should not be used because they may damage and weaken the fabric.

When to replace seat belts

The entire seat belt assembly or assemblies should be replaced if the vehicle has been involved in an accident. This should be done even if no damage is visible. Consult an authorized HYUNDAI dealer.

CHILD RESTRAINT SYSTEM (CRS)

Our Recommendation: Children Always in the Rear

WARNING

Always properly restrain children in the rear seats of the vehicle. Children of all ages are safer when restrained in the rear seat. A child riding in the front passenger seat can be forcefully struck by an inflating air bag resulting in SERIOUS INJURY or DEATH.

Children under age 13 should always ride in the rear seats and must always be properly restrained to minimize the risk of injury in an accident, sudden stop or sudden maneuver.

According to accident statistics, children are safer when properly restrained in the rear seats than in the front seat. Even with air bags, children can be seriously injured or killed. Children too large for a Child Restraint System must use the seat belts provided.

All 50 states have child restraint laws which require children to travel in approved Child Restraint Systems.

The laws governing the age or height/weight restrictions at which seat belts can be used instead of Child Restraint System differs among states, so you should be aware of the specific requirements in your states, and where you are travelling.

Child Restraint Systems must be properly installed in the vehicle seat. Always use a commercially available Child Restraint System that meets the requirements of the Federal Motor Vehicle Safety Standards (FMVSS 213).

Child Restraint Systems are generally designed to be secured in a vehicle seat by lap belt portion of a lap/shoulder belt, or by a LATCH system in the rear seats of the vehicle.

Child Restraint System (CRS)

Infants and younger children must be restrained in an appropriate rearward-facing or forward-facing CRS that has first been properly secured to the seat of the vehicle. Read and comply with the instructions for installation and use provided by the manufacturer of the Child Restraint System.

WARNING

- **NEVER install a child or infant restraint in the front passenger's seat.**
- **Always properly secure the child restraint to a rear seat of the vehicle.**
- **Always follow the child restraint system manufacturer's instructions for installation and use.**
- **Always properly restrain your child in the child restraint.**
- **If the vehicle head restraint prevents proper installation of a child seat (as described in the child restraint system manual), the head restraint of the respective seating position shall be readjusted or entirely removed.**
- **Do not use an infant carrier or a child safety seat that "hooks" over a seatback, it may not provide adequate protection in an accident.**
- **After an accident, have an authorized HYUNDAI dealer check the child restraint system, seat belts, tether anchors and lower anchors.**

Selecting a Child Restraint System (CRS)

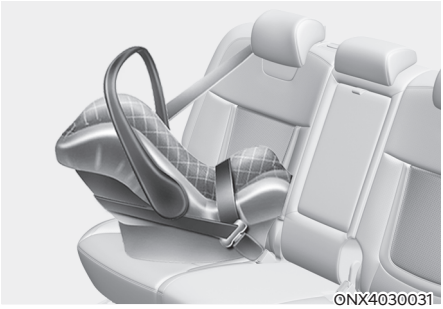
When selecting a Child Restraint System for your child, always:

- Make sure the Child Restraint System has a label certifying that it meets applicable the Federal Motor Vehicle Safety Standards (FMVSS 213).
- Select a Child Restraint System based on your child's height and weight. The required label or the instructions for use typically provide this information.
- Select a Child Restraint System that fits the vehicle seating position where it will be used.
- Read and comply with the warnings and instructions for installation and use provided with the Child Restraint System.

Child Restraint System types

There are three main types of Child Restraint Systems: rearward-facing, forward-facing and booster Child Restraint Systems.

They are classified according to the child's age, height and weight.



Rearward-facing Child Restraint System

A rearward-facing Child Restraint System provides restraint with the seating surface against the back of the child. The harness system holds the child in place, and in an accident, acts to keep the child positioned in the Child Restraint Systems and reduce the stress to the fragile neck and spinal cord.

All children under the age of one year must always ride in a rearward-facing Child Restraint System. Convertible and 3-in-1 Child Restraint Systems typically have higher height and weight limits for the rearward-facing position, allowing you to keep your child rearward-facing for a longer period of time.

Continue using Child Restraint Systems in the rearward-facing position as long as children fit within the height and weight limits allowed by the Child Restraint System's manufacturer. It's the best way to keep them safe. Once your child has outgrown the rearward-facing Child Restraint System, your child is ready for a forward-facing Child Restraint System with a harness.



Forward-facing Child Restraint System

A forward-facing Child Restraint System provides restraint for the child's body with a harness. Keep children in a forward-facing Child Restraint System with a harness until they reach the top height or weight limit allowed by your Child Restraint System's manufacturer.

Once your child outgrows the forward-facing Child Restraint System, your child is ready for a booster seat.

Booster seats

A booster seat is a Child Restraint System designed to improve the fit of the vehicle's seat belt system. A booster seat positions the seat belt so that it fits properly over the stronger parts of your child's body. Keep your children in booster seats until they are big enough to fit in a seat belt properly.

For a seat belt to fit properly, the lap belt must lie comfortable across the upper thighs, not the stomach. The shoulder belt should lie comfortable across the shoulder and chest and not across the neck or face. Children under age 13 must always be properly restrained to minimize the risk of injury in an accident, sudden stop or sudden maneuver.

Installing a Child Restraint System (CRS)

WARNING

Before installing your Child Restraint System always:

- **Read and follow the instructions provided by the manufacturer of the Child Restraint.**
- **Read and follow the instructions regarding child restraint systems in this manual.**

Failure to follow all warnings and instructions could increase the risk of the SERIOUS INJURY or DEATH if an accident occurs.

WARNING

If the vehicle head restraint prevents proper installation of a Child Restraint System, the head restraint of the respective seating position shall be readjusted or entirely removed.

After selecting a proper Child Restraint System for your child and checking that the Child Restraint System fits properly on the seating position, there are three general steps for a proper installation:

- **Properly secure the Child Restraint System to the vehicle.** All Child Restraint Systems must be secured to the vehicle with the lap belt or lap part of a lap/shoulder belt or with the ISOFIX top-tether and/or ISOFIX anchorage and/or with the support leg.
- **Make sure the Child Restraint System is firmly secured.** After installing a Child Restraint System to the vehicle, push and pull the seat forward and from side-to-side to verify that it is securely attached to the seat. A Child Restraint System secured with a seat belt should be installed as firmly as possible. However, some side-to-side movement can be expected.

  When installing a Child Restraint System, adjust the vehicle seat and seatback (up and down, forward and rearward) so that your child fits in the Child Restraint System in a comfortable manner.
- **Secure the child in the Child Restraint System.** Make sure the child is properly strapped in the Child Restraint System according to the Child Restraint System manufacturer's instructions.

CAUTION

A Child Restraint System in a closed vehicle can become very hot. To prevent burns, check the seating surface and buckles before placing your child in the Child Restraint System.

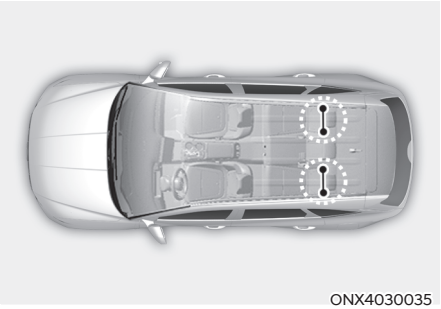
Lower Anchors and Tether for Children (LATCH System)

The LATCH system holds a Child Restraint System during driving and in an accident. This system is designed to make installation of the Child Restraint System easier and reduce the possibility of improperly installing your Child Restraint System. The LATCH system uses anchors in the vehicle and attachments on the Child Restraint System. The LATCH system eliminates the need to use seat belts to secure the Child Restraint System to the rear seats.

Lower anchors are metal bars built into the vehicle. There are two lower anchors for each LATCH seating position that will accommodate a Child Restraint System with lower attachments.

To use the LATCH system in your vehicle, you must have a Child Restraint System with LATCH attachments.

The Child Restraint System manufacturer will provide you with instructions on how to use the Child Restraint System with its attachments for the lower anchors.

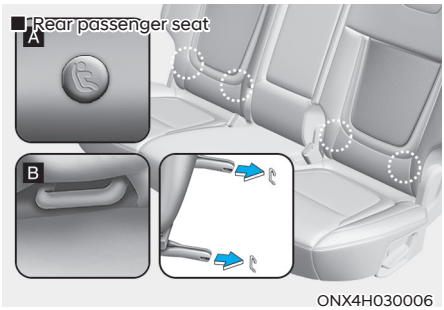


ONX4030035

Lower anchors have been provided in the left and right outboard rear seating positions. Their locations are shown in the illustration. There are no lower anchors provided for the center rear seating position.

WARNING

Do not attempt to install a Child Restraint System using lower anchors in the rear center seating position. There are no lower anchors provided for this seat. Using the outboard seat anchors can damage the anchors which may break or fail in a collision resulting in serious injury or death.



[A] : Lower Anchor Position Indicator
(Type A- , Type B-),
[B] : Lower Anchor

The lower anchor position indicator symbols are located on the left and right rear seat backs to identify the position of the lower anchors in your vehicle (see arrows in illustration).

The lower anchors are located between the seatback and the seat cushion of the rear seat left and right outboard seating positions.

WARNING

Before installing the Child Restraint System, make sure that there are no objects (For example: toy, pen, wire) around the lower anchor area. Those objects may damage either the seat belt system or the Child Restraint System during the installment procedure. If necessary, have the vehicle inspected by an authorized HYUNDAI dealer.

Securing a Child Restraint System with the "LATCH Anchors System"

To install a LATCH-compatible Child Restraint System in either of the rear outboard seating positions:

1. Move the seat belt buckle away from the lower anchors.
2. Move any other objects away from the anchorages that could prevent a secure connection between the Child Restraint System and the lower anchors.
3. Place the Child Restraint System on the vehicle seat, then attach the seat to the lower anchors according to the instructions provided by the Child Restraint System manufacturer.
4. Follow the instructions of the Child Restraint System's manufacturer for proper installation and connection of the lower attachments on the Child Restraint System to the lower anchors.

WARNING

Take the following precautions when using the LATCH system:

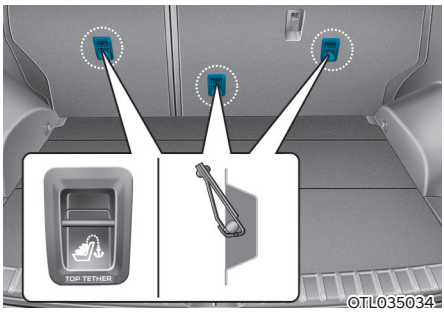
- **Read and follow all installation instructions provided with your Child Restraint System.**
- **To prevent the child from reaching and taking hold of unretracted seat belts, buckle all unused rear seat belts and retract the seat belt webbing behind the child. Children can be strangled if a shoulder belt becomes wrapped around their neck and the seat belt tightens.**
- **NEVER attach more than one Child Restraint System to a single anchorage. This could cause the anchor or attachment to come loose or break.**
- **Always have the LATCH system inspected by your dealer after an accident. An accident can damage the LATCH system and may not properly secure the Child Restraint System.**

NOTICE

The recommended weight for the LATCH system is under 65 lb. (30 kg).

How to determine an appropriate child restraint weight: Child weight + Child restraint weight < 65 lb. (30kg)

Securing a Child Restraint System seat with "Tether Anchor" system system



First secure the child restraint with the LATCH lower anchors or the seat belt. If the child restraint manufacturer recommends that the top tether strap be attached, attach and tighten the top tether strap to the top tether strap anchor.

Child restraint hook holders are located on the rear of the seatbacks.



To install the tether anchor:

1. Route the Child Restraint System top-tether strap over the seatback. Route the tether strap under the head restraint and between the head restraint posts, or route the tether strap over the top of the vehicle seatback. Make sure the strap is not twisted.
2. Connect the tether strap hook to the tether anchor, then tighten the top-tether strap according to the instructions of your Child Restraint System's manufacturer to firmly attach the Child Restraint System to the seat.
3. Check that the Child Restraint System is securely attached to the seat by pushing and pulling the seat forward-and-back and side-to-side.

WARNING

Take the following precautions when installing the top-tether:

- **Read and follow all installation instructions provided with your Child Restraint System.**
- **NEVER attach more than one Child Restraint System to a single tether anchor. This could cause the anchorage or attachment to come loose or break.**
- **Do not attach the top-tether to anything other than the correct top-tether anchorage. It may not work properly if attached to something else.**
- **Child Restraint System anchorages are designed to withstand only those loads imposed by correctly fitted Child Restraint System.**

  Do not use them for adult seat belts, harnesses, or for attaching other items or equipment to the vehicle.

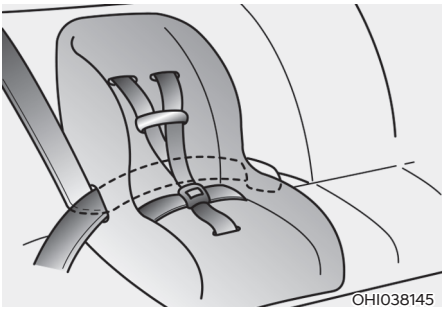
Securing a Child Restraint System with a lap/shoulder belt

WARNING

ALWAYS place a rearward-facing Child Restraint System in the rear seat of the vehicle.

Placing a rearward-facing child restraint in the front seat can result in serious injury or death if the Child Restraint System is struck by an inflating air bag.

When not using the LATCH system, all Child Restraint Systems must be secured to a rear seat with the lap part of a lap/shoulder belt.


OHI038145

Automatic locking mode

Since all passenger seat belts move freely under normal conditions and only lock under extreme or emergency conditions (emergency locking mode), you must manually pull the seat belt all the way out to shift the retractor to the "Automatic Locking" mode to secure a Child Restraint System.

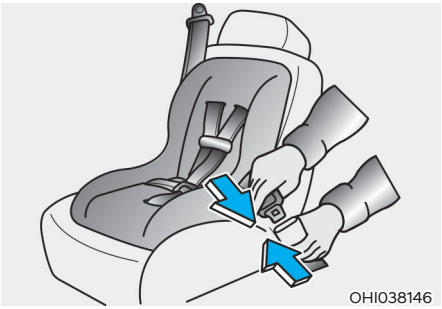
The "Automatic Locking" mode will help prevent the normal movement of the child in the vehicle from causing the seat belt to loosen and compromise the Child Restraint System. To secure a Child Restraint System, use the following procedure.

To install a Child Restraint System on the rear seats, do the following:

1. Place the Child Restraint System on a rear seat and route the lap/shoulder belt around or through the Child Restraint System, following the Child Restraint System manufacturer's instructions. Make sure the seat belt webbing is not twisted.

Information

When using the rear center seat belt, you should also refer to the "Rear Seat Belt – Passenger's 3-point system" section in this chapter.



2. Fasten the lap/shoulder belt latch into the buckle. Listen for the distinct “click” sound.

Information

Position the release button so that it is easy to access in case of an emergency.



3. Pull the shoulder portion of the seat belt all the way out. When the shoulder portion of the seat belt is fully extended, it will shift the retractor to the "Automatic Locking" (child restraint) mode.



4. Slowly allow the shoulder portion of the seat belt to retract and listen for an audible "clicking" or "ratcheting" sound. This indicates that the retractor is in the "Automatic Locking" mode. If no distinct sound is heard, repeat steps 3 and 4.
5. Remove as much slack from the belt as possible by pushing down on the Child Restraint System while feeding the shoulder belt back into the retractor.
6. Push and pull on the Child Restraint System to confirm that the seat belt is holding it firmly in place. If it is not, release the seat belt and repeat steps 2 through 6.
7. Double check that the retractor is in the "Automatic Locking" mode by attempting to pull more of the seat belt out of the retractor. If you cannot, the retractor is in the "Automatic Locking" mode.

If your Child Restraint System manufacturer instructs or recommends you to use a tether anchor with the lap/shoulder belt, refer to the previous pages for more information.

Information

When the seat belt is allowed to retract to its fully stowed position, the retractor will automatically switch from the "Automatic Locking" mode to the emergency lock mode for normal adult usage.

WARNING

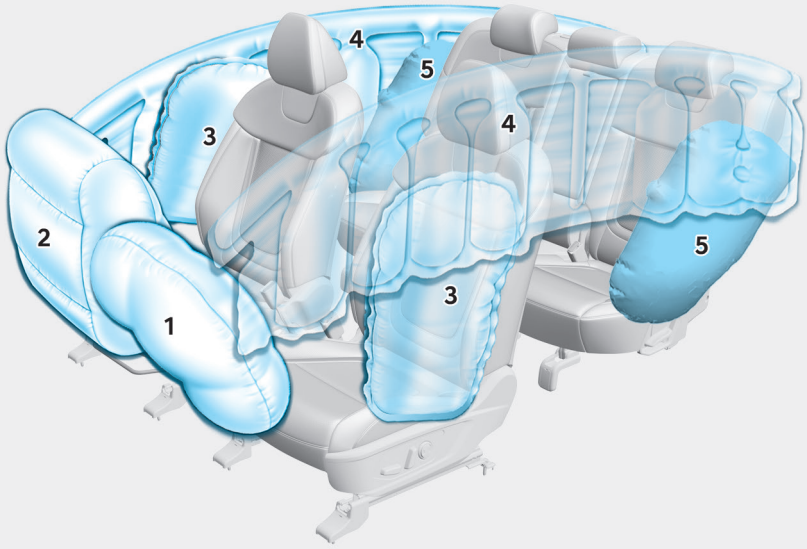
If the retractor is not in the "Automatic Locking" mode, the child restraint can move when your vehicle turns or stops suddenly. A child can be seriously injured or killed if the child restraint is not properly anchored in the car, including manually pulling the seat belt all the way out to shift the retractor to the "Automatic Locking" mode.

To remove the Child Restraint System, press the release button on the buckle and then pull the lap/shoulder belt out of the Child Restraint System and allow the seat belt to retract fully.

WARNING

If a child restraint is installed in the second row center seat, move the second row seat far back as possible, to minimize contact with the front center air bag.

AIR BAG - SUPPLEMENTAL RESTRAINT SYSTEM



The actual air bags in the vehicle may differ from the illustration.

ONX4A033001

1. Driver's front air bag
2. Passenger's front air bag
3. Front side air bag
4. Curtain air bag
5. Rear side air bag

This vehicle is equipped with a Supplemental Air Bag System for the driver's seat and front passenger's seats.

The front air bags are designed to supplement the three-point seat belts. For these air bags to provide protection, the seat belts must be worn at all times when driving.

You can be severely injured or killed in an accident if you are not wearing a seat belt. Air bags are designed to supplement seat belts, but do not replace them. Also, air bags are not designed to deploy in every collision. In some accidents, the seat belts are the only restraint protecting you.

WARNING

AIR BAG SAFETY PRECAUTIONS

ALWAYS use seat belts and Child Restraint Systems - every trip, every time, everyone! Even with air bags, you can be seriously injured or killed in a collision if you are improperly belted or not wearing your seat belt when the air bag inflates.

NEVER place a child in any Child Restraint System or booster seat in the front passenger seat, unless the air bag is deactivated.

An inflating air bag could forcefully strike the infant or child causing serious or fatal injuries.

ABC - Always Buckle Children under age 13 in the back seat. It is the safest place for children of any age to ride. If a child age 13 or older must be seated in the front seat, he or she must be properly belted and the seat should be moved as far back as possible.

All occupants should sit upright with the seatback in an upright position, centered on the seat cushion with their seat belt on, legs comfortably extended and their feet on the floor until the vehicle is parked and the vehicle is turned off. If an occupant is out of position during an accident, the rapidly deploying air bag may forcefully contact the occupant causing serious or fatal injuries.

You and your passengers should never sit or lean unnecessarily close to the air bags or lean against the door or center console.

Move your seat as far back as possible from front air bags, while still maintaining control of the vehicle. The U.S. National Highway Traffic Safety Administration (NHTSA) recommends that drivers allow at least 10 inches (25 cm) between the center of the steering wheel and the chest.

Where are the Air Bags?

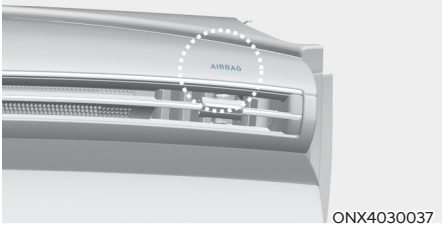
Driver's and passenger's front air bags

■ Driver's front air bag



OCN7030036

■ Passenger's front air bag



ONX4030037

Your vehicle is equipped with a Supplemental Restraint System (SRS) and lap/shoulder belts at both the driver and passenger seating positions.

The SRS consists of air bags which are located in the center of the steering wheel and the passenger's side front panel pad above the glove box.

The air bags are labeled with the letters "AIR BAG" embossed on the pad covers.

The purpose of the SRS is to provide the vehicle's driver and front passengers with additional protection than that offered by the seat belt system alone in case of a frontal impact of sufficient severity.

The SRS uses sensors to gather information about the driver's and front passenger's seat belt usage and impact severity.

The seat belt buckle sensors determine if the driver and front passenger's seat belts are fastened. These sensors provide the ability to control the SRS deployment based on whether or not the seat belts are fastened, and how severe the impact is.

The advanced SRS offers the ability to control the air bag inflation within two levels. A first stage level is provided for moderate-severity impacts. A second stage level is provided for more severe impacts.

According to the impact severity, and seat belt usage, the SRS Control Module (SRSCM) controls the air bag inflation. Failure to properly wear seat belts can increase the risk or severity of injury in an accident.

WARNING

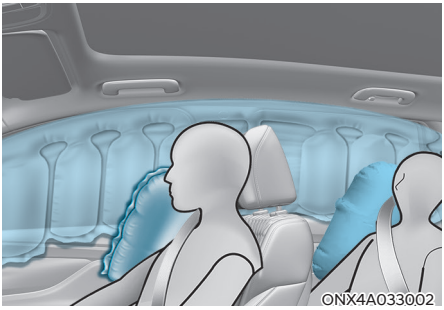
To reduce the risk of serious injury or death from inflating front air bags, take the following precautions:

- **Seat belts must be worn at all times to help keep occupants positioned properly.**
- **Move your seat as far back as possible from front air bags, while still maintaining control of the vehicle.**
- **Never lean against the door or center console.**
- **Do not allow the front passenger to place their feet or legs on the dashboard.**
- **No objects (such as crash pad cover, mobile phone holder, cup holder, air fresheners or stickers) should be placed over or near the air bag modules on the steering wheel, instrument panel, windshield glass, and the front passenger's panel above the glove box. Such objects could cause harm if the vehicle is in a crash severe enough to cause the air bags to deploy.**
- **Do not attach any objects on the front windshield and inside mirror.**

Side air bags







Your vehicle is equipped with a side air bag in each front seat. The purpose of the air bag is to provide the vehicle's driver and the front passenger with additional protection than that offered by the seat belt alone.

The side air bags are designed to deploy during certain side impact collisions, depending on the crash severity.

The side air bags on both sides of the vehicle are designed to deploy when a rollover is detected by a rollover sensor. (if equipped with rollover sensor)

The side air bags are not designed to deploy in all side impact or rollover situations.

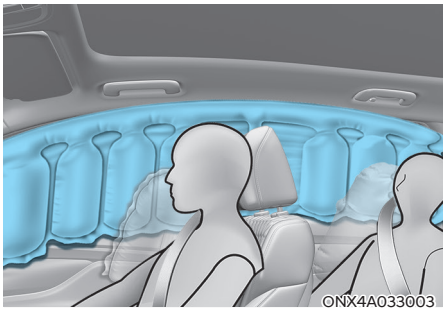
WARNING

To reduce the risk of serious injury or death from an inflating side air bag and front center air bag, take the following precautions:

- **Seat belts must be worn at all times to help keep occupants positioned properly.**
- **Do not allow passengers to lean their heads or bodies onto doors, put their arms on the doors, stretch their arms out of the window, or place objects between the doors and seats.**
- **Hold the steering wheel at the 9 o'clock and 3 o'clock positions, to minimize the risk of injuries to your hands and arms.**
- **Do not use any accessory seat covers. This could reduce or prevent the effectiveness of the system.**
- **Do not hang other objects except clothes. In an accident it may cause vehicle damage or personal injury especially when air bag is inflated.**
- **Do not place any objects over the air bag or between the air bag and yourself. Also, do not attach any objects around the area the air bag inflates such as the door, side door glass, front and rear pillar.**
- **Do not place any objects between the door and the seat. They may become dangerous projectiles if the side air bag inflates.**
- **Do not install any accessories on the side or near the side air bags.**
- **Do not cause impact to the doors when the Engine Start/Stop button is in the ON or START position as this may cause the side air bags to inflate.**
- **If the seat or seat cover is damaged, have the system serviced by an authorized HYUNDAI dealer.**

Curtain air bags





Curtain air bags are located along both sides of the roof rails above the front and rear doors.

They are designed to help protect the heads of the front seat occupants and the rear outboard seat occupants in certain side impact collisions.

The curtain air bags are designed to deploy during certain side impact collisions, depending on the crash severity.

For vehicles equipped with a rollover sensor the side and/or curtain air bags and pre-tensioners on both sides of the vehicle may deploy if a rollover or possible rollover is detected.

The curtain air bags are not designed to deploy in all side impact or rollover situations.

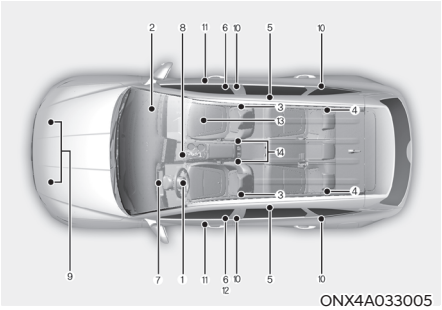
WARNING

To reduce the risk of serious injury or death from an inflating curtain air bag, take the following precautions:

- **All seat occupants must wear seat belts at all times to help keep occupants positioned properly.**
- **Properly secure Child Restraint System as far away from the door as possible.**
- **Do not place any objects over the air bag. Also, do not attach any objects around the area the air bag inflates such as the door, side door glass, front and rear pillar, roof side rail.**
- **Do not hang other objects except clothes, especially hard or breakable objects.**

  In an accident, it may cause vehicle damage or personal injury.
- **Do not allow passengers to lean their heads or bodies onto doors, put their arms on the doors, stretch their arms out of the window, or place objects between the doors and seats.**
- **Do not attempt to open or repair the side curtain air bags yourself. If necessary, have the air bag inspected by an authorized HYUNDAI dealer.**

How does the Air Bags System Operate?



ONX4A033005

The SRS consists of the following components:

(1) Driver's front air bag module
(2) Passenger's front air bag module
(3) Front side airbag modules
(4) Rear side airbag modules
(5) Curtain airbag modules
(6) Retractor pretensioner
(7) Airbag warning light
(8) SRS control module (SRSCM)/ Rollover sensor
(9) Front impact sensors
(10) Side impact sensors
(11) Side pressure sensors
(12) Emergency fastening device system
(13) Occupant classification system
(14) Seat belt buckle sensor

The SRSCM continually monitors all SRS components while the ignition switch is ON to determine if a crash impact is severe enough to require air bag deployment or pre-tensioner seat belt deployment.

SRS warning light

The SRS (Supplemental Restraint System) air bag warning light on the instrument panel displays the air bag symbol depicted in the illustration. The system checks the air bag electrical system for malfunctions. The light indicates that there is a potential problem with your air bag system, which could include your side and/or curtain air bags used for rollover protection (if equipped with rollover sensor).

WARNING

If your SRS malfunctions, the air bag may not inflate properly during an accident, increasing the risk of serious injury or death.

If any of the following conditions occur, your SRS is malfunctioning:

- **The light does not turn on for approximately three to six seconds when the Engine Start/Stop button is in the ON position.**
- **The light stays on after illuminating for approximately three to six seconds.**
- **The light comes on while the vehicle is in motion.**
- **The light blinks when the engine is running.**

Have an authorized HYUNDAI dealer inspect the SRS as soon as possible if any of these conditions occur.

During a moderate to severe frontal collision, sensors will detect the vehicle's rapid deceleration. If the rate of deceleration is high enough, the control unit will inflate the front air bags, at the time and with the force needed.

The front air bags help protect the driver and front passenger by responding to frontal impacts in which seat belts alone cannot provide adequate restraint. When needed, the side air bags help provide protection in the event of a side impact or rollover by supporting the side upper body area.

- Air bags are activated (able to inflate if necessary) only when the Engine Start/Stop button is in the ON or START position, and it can be activated within about 3 minutes after the engine is turned off.
- Air bags inflate in the event of certain frontal or side collisions to help protect the occupants from serious physical injury.
- There is no single speed at which the air bags will inflate. Generally, air bags are designed to inflate based upon the severity of a collision and its direction. These two factors determine whether the sensors produce an electronic deployment/inflation signal.
- The front air bags will completely inflate and deflate in an instant. It is virtually impossible for you to see the air bags inflate during an accident. It is much more likely that you will simply see the deflated air bags hanging out of their storage compartments after the collision.
- In addition to inflating in serious side collisions, vehicles equipped with a rollover sensor, side and/or curtain air bags will inflate if the sensing system detects a rollover.

  When a rollover is detected, curtain air bags will remain inflated longer to help provide protection from ejection, especially when used in conjunction with the seat belts. (if equipped with a rollover sensor)
- To help provide protection, the air bags must inflate rapidly. The speed of air bag inflation is a consequence of extremely short time in which to inflate the air bag between the occupant and the vehicle structures before the occupant impacts those structures. This speed of inflation reduces the risk of serious or lifethreatening injuries and is thus a necessary part of air bag design.

  However, the rapid air bag inflation can also cause injuries which can include facial abrasions, bruises and broken bones because the inflation speed also causes the air bags to expand with a great deal of force.
- There are even circumstances under which contact with the air bag can cause fatal injuries, especially if the occupant is positioned excessively close to the air bag.

You can take steps to reduce the risk of being injured by an inflating air bag. The greatest risk is sitting too close to the air bag. An air bag needs about 10 in. (25 cm) of space to inflate. NHTSA recommends that drivers allow at least 10 in. (25 cm) between the center of the steering wheel and the chest.

WARNING

To reduce the risk of serious injury or death from an inflating air bag, take the following precautions:

- **NEVER place a child restraint in the front passenger seat. Always properly restrain children under age 13 in the rear seats of the vehicle.**
- **Adjust the front passenger's and driver's seats as far to the rear as possible while maintaining you to maintain full control of the vehicle.**
- **Hold the steering wheel with hands at the 9 o'clock and 3 o'clock positions.**
- **Never place anything or anyone between the air bag and the seat occupant.**
- **Do not allow the front passenger to place their feet or legs on the dashboard.**

■ Driver's front air bag (1)



When the SRSCM detects a sufficiently severe impact to the front of the vehicle, it will automatically deploy the front air bags.

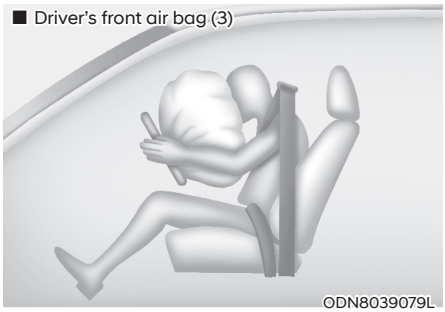
■ Driver's front air bag (2)



Upon deployment, tear seam molded directly into the pad cover will separate under pressure from the expansion of the air bags. Further opening of the covers allows full inflation of the air bags.

A fully inflated air bag, in combination with a properly worn seat belt, slows the driver's or the front passenger's forward motion, reducing the risk of head and chest injury.

■ Driver's front air bag (3)



ODN8039079L

■ Passenger's front air bag



ODN8039080L

After complete inflation, the air bag immediately starts deflating, enabling the driver to maintain forward visibility and the ability to steer or operate other controls.

WARNING

To prevent objects from becoming dangerous projectiles when the passenger's air bag inflates:

- **Do not install or place any objects (drink holder, CD holder, stickers, etc.) on the front passenger's panel above the glove box where the passenger's air bag is located.**
- **Do not install a container of liquid air freshener near the instrument cluster or on the instrument panel surface.**

What to Expect after an Air Bag Inflates

After a frontal or side air bag inflates, it will deflate very quickly. Air bag inflation will not prevent the driver from seeing out of the windshield or being able to steer. Curtain air bags may remain partially inflated for some time after they deploy.

WARNING

After an air bag inflates, take the following precautions:

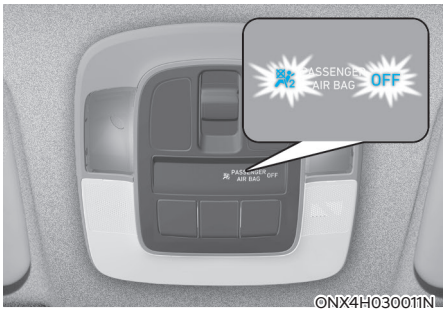
- **Open your windows and doors as soon as possible after impact to reduce prolonged exposure to the smoke and powder released by the inflating air bag.**
- **Do not touch the air bag storage area's internal components immediately after an air bag has inflated. The parts that come into contact with an inflating air bag may be very hot.**
- **Always wash exposed skin areas thoroughly with cold water and mild soap.**
- **Have an authorized HYUNDAI dealer replace the air bag immediately after deployment. Air bags are designed to be used only once.**

Noise and smoke from inflating air bag

When the air bags inflate, they make a loud noise and may produce smoke and powder in the air inside of the vehicle. This is normal and is a result of the ignition of the air bag inflator. After the air bag inflates, you may feel substantial discomfort in breathing because of the contact of your chest with both the seat belt and the air bag, as well as from breathing the smoke and powder. The powder may aggravate asthma for some people. If you experience breathing problems after an air bag deployment, seek medical attention immediately.

Though the smoke and powder are nontoxic, they may cause irritation to the skin, eyes, nose, throat, etc. If this is the case, wash and rinse with cold water immediately and seek medical attention if the symptoms persist.

Occupant Classification System (OCS)



ONX4H030011N

Your vehicle is equipped with an Occupant Classification System (OCS) in the front passenger's seat.

Main components of the Occupant Classification System

- A detection device located within the front passenger seat cushion.
- Electronic system to help determine whether the passenger air bag systems should be activated or deactivated.
- An indicator light located on the overhead console which illuminates the words “PASSENGER AIR BAG OFF” indicating the front passenger air bag system is deactivated.
- The overhead console air bag indicator light is interconnected with the OCS.

The OCS is designed to help detect the presence of a properly-seated front passenger and determine if the passenger’s front air bag should be enabled (may inflate) or not.

The purpose is to help reduce the risk of injury or death from an inflating air bag to certain front passenger seat occupants, such as children, by requiring the air bag to be automatically turned OFF.

For example, if a child restraint of the type specified in the regulations is on the seat, the occupant classification sensor can detect it and cause the air bag to turn OFF.

Front passenger seat adult occupants who are properly seated and wearing the seat belt properly, should not cause the passenger air bag to be automatically turned OFF. For smaller adults it may turn OFF, however, if the occupant does not sit in the seat properly (for example, by not sitting upright, by sitting on the edge of the seat, or by otherwise being out of position), this could cause the sensor to turn the air bag OFF.

You will find the “PASSENGER AIR BAG OFF” indicator on the overhead console panel. This system detects the conditions 1-4 in the following table and activates or deactivates the front passenger air bag based on these conditions.

Always be sure that you and all vehicle occupants are seated properly and wearing the seat belt properly for the most effective protection by the air bag and the seat belt.

The OCS may not function properly if the passenger takes actions which can affect the classification system. These include:

- Failing to sit in an upright position.
- Leaning against the door or center console.
- Sitting towards the sides of the front of the seat.
- Putting their legs on the dashboard or resting them on other locations which reduce the passenger weight on the front seat.
- Wearing the seat belt improperly.
- Reclining the seatback.
- Wearing thick clothes like ski wear or hip protection wear.
- Putting an additional thick cushion on the seat.
- Putting electrical devices (e.g. notebook, satellite radio) on the seat with inverter charging.

Condition and operation in the front passenger Occupant Classification System

Condition detected by the occupant classification system	Indicator/Warning light		Devices
	PASSENGER AIR BAG OFF indicator light	SRS warning light	Front passenger air bag
1. Adult*1	Off	Off	Activated
2. Infant or child under 12 months old*4 with a child restraint system*2 *3	On	Off	Deactivated
3. Unoccupied	On	Off	Deactivated
4. Malfunction in the system	Off	On	Activated

*1 : The system judges a person of adult size as an adult. When a smaller adult sits in the front passenger seat, the system may recognize him/her as a child depending on his/her physique and posture.

*2 : Do not allow children to ride in the front passenger seat. When a larger child who has outgrown a child restraint system sits in the front passenger seat, the system may recognize him/her as an adult depending upon his/her physique or sitting position.

*3 : Never install a child restraint system on the front passenger seat.

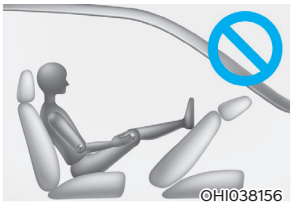
*4 : The PASSENGER AIR BAG “OFF” indicator may turn on or off when a child above 12 months to 12 years old (with or without child restraint system) sits in the front passenger seat. This is a normal condition.

WARNING

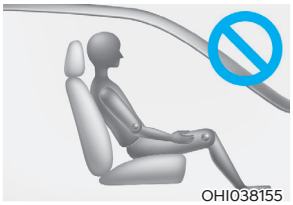
Riding in an improper position or placing weight on the front passenger's seat when it is unoccupied by a passenger adversely affects the OCS. To reduce the risk of serious injury or death:



- **NEVER put a heavy load in the front seat or seatback pocket, or hang any items on the front passenger seat.**



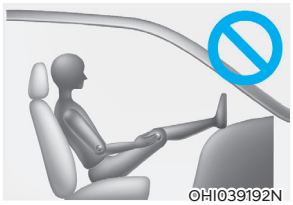
- **NEVER place your feet on the front passenger seatback.**



- **NEVER sit with your hips shifted towards the front of the seat.**



- **NEVER ride with the seatback reclined when the vehicle is moving.**



- **NEVER place your feet or legs on the dashboard.**


OHI038158

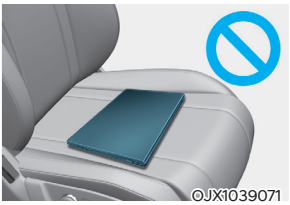
- NEVER lean on the door or center console or sit on one side of the front passenger seat.


OJX1039069

- Do not sit on the passenger seat wearing heavily padded clothes such as ski wear and hip protector.


OJX1039070

- Do not use car seat accessories such as thick blankets and cushions which cover up the car seat surface.


OJX1039071

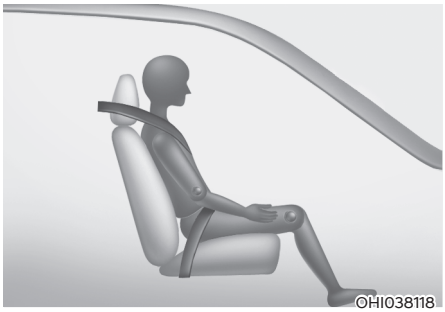
- Do not place electronic devices such as laptops, DVD player, or conductive materials such as water bottles on the passenger seat.
- Do not use electronic devices such as laptops and satellite radios which use inverter chargers.


OJX1039072

- If large quantity of liquid has been spilled on the passenger seat, the air bag warning light may illuminate or malfunction.

  Therefore, make sure the seat has been completely dried before driving the vehicle.

- Do not place sharp objects on the front passenger seat. These may damage the occupant detection system, if they puncture the seat cushion.
- Do not place any items under the front passenger seat.
- When changing or replacing the seat or seat cover, use original items only. The OCS has been developed based on using original HYUNDAI car seats only. Altering or changing the authentic parts may result in system malfunction and increase risk of injury when in collision. Any of the above could interfere with the proper operation of the OCS sensor thereby increasing the risk of an injury in an accident.



Proper seated position for OCS

If the “PASSENGER AIR BAG OFF” indicator is on when an adult is seated in the front passenger seat, place the Engine Start/Stop button in the OFF position and ask the passenger to sit properly (sitting upright with the seat back in an upright position, centered on the seat cushion with their seat belt on, legs comfortably extended and their feet on the floor). Restart the engine and have the person remain in that position. This will allow the system to detect the person and to enable the passenger air bag. If the “PASSENGER AIR BAG OFF” indicator is still on, ask the passenger to move to the rear seat.

WARNING

NEVER allow an adult passenger to ride in the front passenger seat when the “PASSENGER AIR BAG OFF” indicator is illuminated. During a collision, the air bag will not inflate if the indicator is illuminated. Have your passenger reposition themselves in the seat. If the “PASSENGER AIR BAG OFF” indicator remains illuminated after the passenger repositions themselves properly and the vehicle is restarted, have the passenger move to the rear seat because the air bag will not inflate.

NOTICE

The “PASSENGER AIR BAG OFF” indicator generally illuminates for approximately 4 seconds after the Engine Start/Stop button is in the ON or START position. But, if the Engine Start/Stop button is pressed to the ON or START position within 3 minutes after the engine is turned OFF, the indicator does not illuminate. If the front passenger seat is occupied, the OCS will then classify the front passenger after several more seconds.

Do not install a Child Restraint System on the front passenger seat



Even though your vehicle is equipped with the OCS, never install a child restraint in the front passenger's seat. An inflating air bag can forcefully strike a child or child restraint resulting in serious or fatal injury.

WARNING

NEVER use a rearward facing Child Restraint on a seat protected by an ACTIVE AIRBAG in front of it, DEATH or SERIOUS INJURY to the CHILD can occur.

Why didn't my air bag go off in a collision?

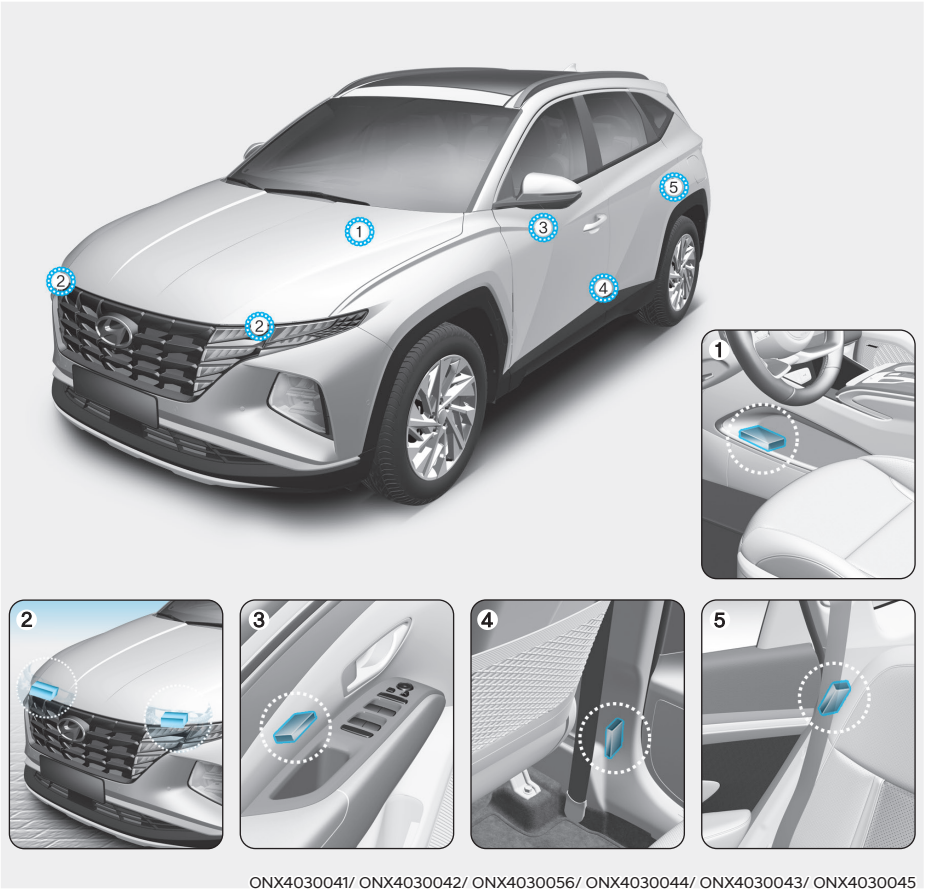
There are certain types of accidents in which the air bag would not be expected to provide additional protection. These include rear impacts, second or third collisions in multiple impact accidents, as well as low speed impacts. Damage to the vehicle indicates a collision energy absorption, and is not an indicator of whether or not an air bag should have inflated.

Air bag collision sensors

WARNING

To reduce the risk of an air bag deploying unexpectedly and causing serious injury or death:

- **Do not hit or allow any objects to impact the locations where air bags or sensors are installed.**
- **Do not perform maintenance on or around the air bag sensors. If the location or angle of the sensors is altered, the air bags may deploy when they should not or may not deploy when they should.**
- **Installing bumper guards with non-genuine Hyundai or non-equivalent parts may adversely affect the collision and airbag deployment performance.**
- **Press the Engine Start/Stop button to the OFF or ACC position and wait for 3 minutes when the vehicle is being towed to prevent inadvertent air bag deployment.**
- **Have all air bag repairs performed by an authorized HYUNDAI dealer.**

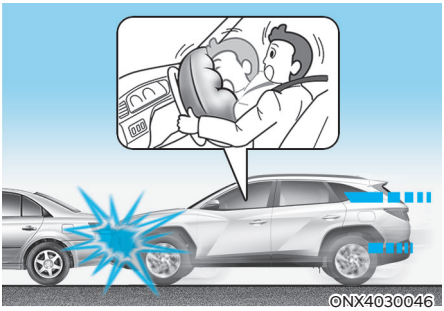


ONX4030041/ ONX4030042/ ONX4030056/ ONX4030044/ ONX4030043/ ONX4030045

1. SRS control module / Rollover sensor
2. Front impact sensor
3. Side impact sensor (Pressure)
4. Side impact sensor (Acceleration)*
5. Side impact sensor (Acceleration)*

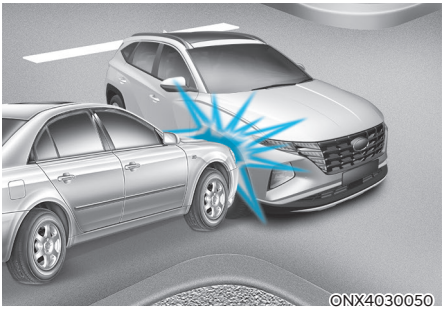
* : if equipped

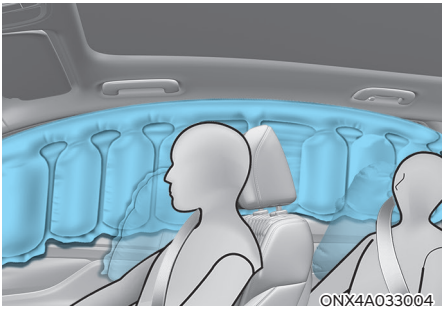
Air bag inflation conditions



Front air bags

Front air bags are designed to inflate in a frontal collision depending on the severity of impact of the front collision.





Side and curtain air bags

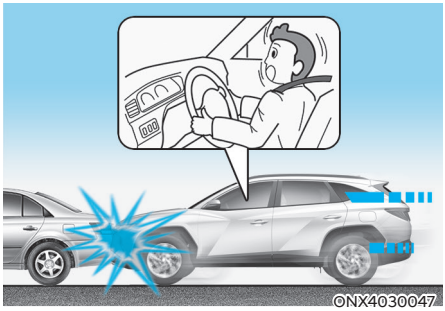
Side and curtain air bags are designed to inflate when an impact is detected by side collision sensors depending on the severity.

Although the driver's and front passenger's air bags are designed to inflate in frontal collisions, they also may inflate in other types of collisions if the front impact sensors detect a sufficient impact. Side and curtain air bags are designed to inflate in side impact collisions, but they may inflate in other collisions if the side impact sensors detect a sufficient impact.

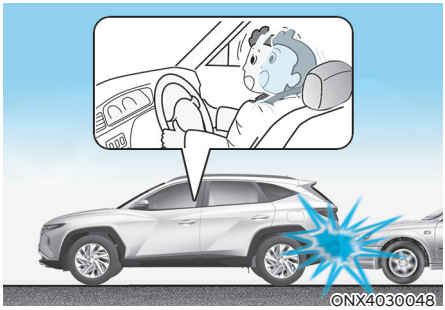
Also, the side and curtain air bags are designed to inflate when a rollover is detected by a rollover sensor. (if equipped with rollover sensor)

If the vehicle chassis is impacted by bumps or objects on unimproved roads, the air bags may deploy. Drive carefully on unimproved roads or on surfaces not designed for vehicle traffic to prevent unintended air bag deployment.

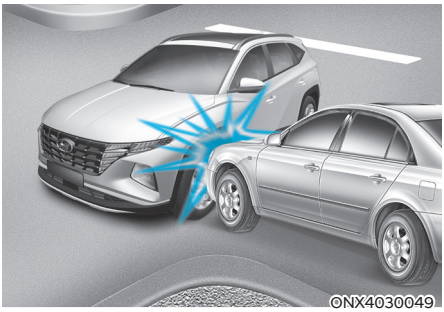
Air bag non-inflation conditions



In certain low-speed collisions the air bags may not deploy. The air bags are designed not to deploy in such cases because they may not provide benefits beyond the protection of the seat belts.

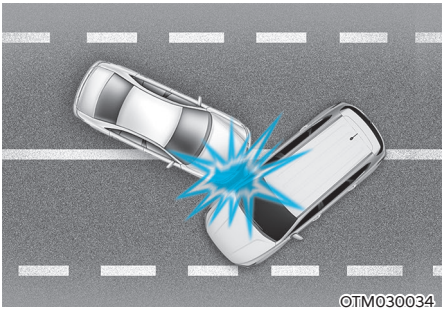


Front air bags are not designed to inflate in rear collisions, because occupants are moved backward by the force of the impact. In this case, inflated air bags would not provide any additional benefit.

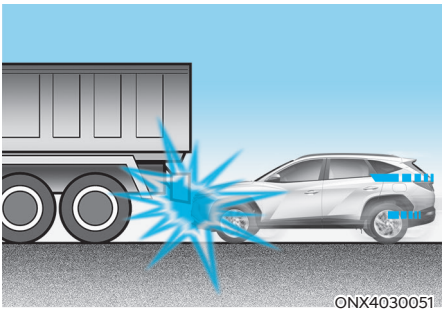


Front air bags may not inflate in side impact collisions, because occupants move in the direction of the collision, and thus in side impacts, front air bag deployment would not provide additional occupant protection.

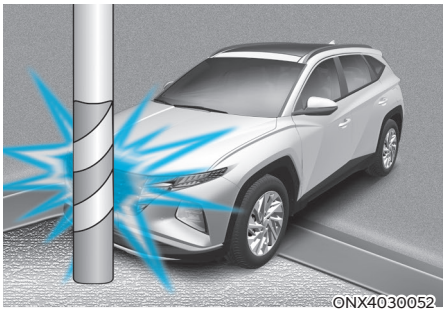
However, side and curtain air bags and the front center air bag may inflate depending on the severity of impact.



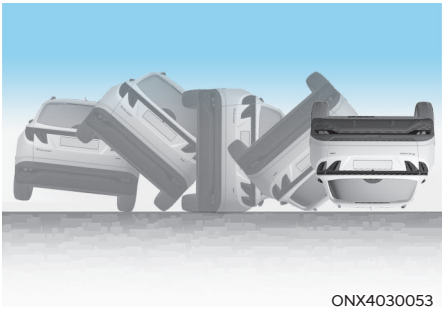
In an angled collision, the force of impact may direct the occupants in a direction where the air bags would not be able to provide any additional benefit, and thus the sensors may not deploy any air bags.



Just before impact, drivers often brake heavily. Such heavy braking lowers the front portion of the vehicle causing it to “ride” under a vehicle with a higher ground clearance. Air bags may not inflate in this “underride” situation because deceleration forces that are detected by sensors may be significantly reduced by such “underride” collisions.



Air bags may not inflate if the vehicle collides with objects such as utility poles or trees, where the point of impact is concentrated and the collision energy is absorbed by the vehicle structure.



Front air bags may not inflate in rollover accidents because front air bag deployment would not provide additional occupant protection.

SRS Care

The SRS is virtually maintenance-free and there are no parts you can safely service by yourself. If the SRS air bag warning light does not illuminate when the Engine Start/Stop button is in the ON position, or continuously remains on, have your vehicle immediately inspected by an authorized HYUNDAI dealer.

Any work on the SRS system, such as removing, installing, repairing, or any work on the steering wheel, the front passenger's panel, front seats and roof rails must be performed by an authorized HYUNDAI dealer. Improper handling of the SRS system may result in serious personal injury.

WARNING

To reduce the risk of serious injury or death take the following precautions:

- **Do not attempt to modify or disconnect the SRS components or wiring, including the addition of any kind of badges to the pad covers or modifications to the body structure.**
- **Do not place objects over or near the air bag modules on the steering wheel, instrument panel, and the front passenger's panel above the glove box.**
- **Clean the air bag pad covers with a soft cloth moistened with plain water. Solvents or cleaners could adversely affect the air bag covers and proper deployment of the system.**
- **Always have inflated air bags replaced by an authorized HYUNDAI dealer.**
- **If components of the air bag system must be discarded, or if the vehicle must be scrapped, certain safety precautions must be observed. Consult an authorized HYUNDAI dealer for the necessary information. Failure to follow these precautions could increase the risk of personal injury.**

Additional Safety Precautions

Passengers should not move out of or change seats while the vehicle is moving. A passenger who is not wearing a seat belt during a crash or emergency stop can be thrown against the inside of the vehicle, against other occupants, or be ejected from the vehicle.

Do not use any accessories on seat belts. Devices claiming to improve occupant comfort or reposition the seat belt can reduce the protection provided by the seat belt and increase the chance of serious injury in a crash.

Do not modify the front seats. Modification of the front seats could interfere with the operation of the supplemental restraint system sensing components or side air bags.

Do not place items under the front seats. Placing items under the front seats could interfere with the operation of the supplemental restraint system sensing components and wiring harnesses.

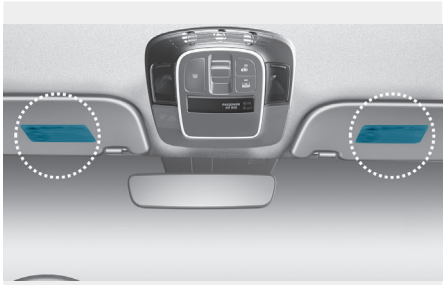
Do not cause impact to the doors. Impact to the doors when the Engine Start/Stop button is in the ON or START position may cause the air bags to inflate.

Modifications to accommodate disabilities. If you require modification to your vehicle to accommodate a disability, contact the HYUNDAI Customer Connect Center at 800-633-5151.

Adding equipment to or modifying your air bag equipped vehicle

If you modify your vehicle by changing your vehicle's frame, bumper system, front end or side sheet metal or ride height, this may affect the operation of your vehicle's air bag system.

Air Bag Warning Labels



ODN8039057L

Air bag warning labels, required by the U.S. National Highway Traffic Safety Administration (NHTSA), are attached to alert the driver and passengers of potential risks of the air bag system.

Be sure to read all of the information about the air bags that are installed on your vehicle in this Owners Manual.

4. Instrument Cluster

Instrument Cluster 4-4
Instrument Cluster Control 4-5
Instrument panel illumination 4-5
Gauges and Meters 4-5
Speedometer 4-5
Power gauge 4-6
Fuel gauge 4-6
Hybrid battery SOC (State of Charge) gauge 4-7
Plug-in hybrid mode indicator 4-7
Outside temperature gauge 4-8
Odometer 4-8
Distance to empty 4-9
Fuel economy (for 10.25-inch cluster) 4-9
Transmission Shift Indicator 4-10
Automatic transmission shift indicator 4-10
Warning and Indicator Lights 4-10
Seat belt warning light 4-10
Air bag warning light 4-10
Parking brake warning light 4-11
Regenerative brake warning light 4-12
Anti-lock Brake System (ABS) warning light 4-12
Electronic Brake Force Distribution (EBD) system warning light 4-12
Electric Power Steering (EPS) warning light 4-13
Malfunction Indicator Lamp (MIL) 4-13
Electronic Parking Brake (EPB) warning light 4-14
AUTO HOLD indicator light 4-15
Charging system warning light 4-15
Engine oil pressure warning light 4-15
Low fuel level warning light 4-16
Service warning light 4-16
Charging Cable Connection Indicator (Plug-in hybrid vehicle) 4-16
Master warning light 4-17
Low tire pressure warning light 4-17
Forward Safety warning light 4-18
Lane Safety indicator light 4-18
All Wheel Drive (AWD) warning light 4-18
All Wheel Drive (AWD) LOCK indicator light 4-18
LED headlight warning light 4-19
Icy road warning light 4-19
Ready indicator 4-19
EV mode indicator 4-20
Electronic Stability Control (ESC) indicator light 4-20

Electronic Stability Control (ESC) OFF indicator light 4-20
Immobilizer Indicator Light (without smart key) 4-20
Immobilizer indicator light (with smart key) 4-21
Downhill Brake Control (DBC) indicator light 4-21
Turn signal indicator light 4-22
High beam indicator light 4-22
Low beam indicator light 4-22
Light ON indicator light 4-22
High Beam Assist indicator light 4-22
Cruise indicator light 4-22
SPORT Mode indicator light 4-23
SMART Mode indicator light 4-23
Cluster Display Messages 4-23
Shift to P 4-23
Low key battery 4-23
Press START button while turning wheel 4-23
Check steering wheel lock system 4-23
Press brake pedal to start engine 4-24
Key not in vehicle 4-24
Key not detected 4-24
Press START button again 4-24
Press START button with key 4-24
Check BRAKE SWITCH fuse 4-24
Shift to P to start engine 4-24
12V battery discharging due to additional electrical devices 4-24
Door, Hood, Liftgate open indicator 4-25
Sunroof open indicator 4-25
Low pressure 4-25
Wiper/Lights display 4-26
Low washer fluid 4-26
Low fuel 4-26
Engine has overheated 4-26
Low engine oil 4-26
Check headlight 4-26
Check turn signal 4-27
Check brake light 4-27
Check headlight LED 4-27
Ready to start driving 4-27
Check regenerative brakes 4-27
Stop vehicle and check brakes 4-27
Check Hybrid system 4-27
Stop safely and check Hybrid system 4-27

4. Instrument Cluster

Check Hybrid system. Do not start engine 4-27
Stop safely and check power supply 4-28
Check virtual engine sound system 4-28
Refill inverter coolant 4-28
Park with engine On to charge battery 4-28
Start engine to avoid battery discharge 4-28
Check regenerative brakes 4-29
Check virtual engine sound system 4-29
Unplug vehicle to start (Plug-in hybrid vehicle) 4-29
Remaining time (Plug-in hybrid vehicle) 4-29
Wait until fuel door unlocks (Plug-in hybrid vehicle) 4-30
Check fuel door (Plug-in hybrid vehicle) 4-30
Fuel door open (Plug-in hybrid vehicle) 4-31
Shift to P to charge (Plug-in hybrid vehicle) 4-31
Switching to Hybrid mode to allow heating or air conditioning (Plug-in hybrid vehicle) 4-31
Maintaining Hybrid mode to allow heating or air conditioning (Plug-in hybrid vehicle) 4-32
Low/High System Temp. Maintaining Hybrid mode (Plug-in hybrid vehicle) 4-32
Low/High System Temp. Switching to Hybrid mode (Plug-in hybrid vehicle) 4-32
Switching to Hybrid mode to lubricate engine (Plug-in hybrid vehicle) 4-33
Maintaining Hybrid mode to protect engine (Plug-in hybrid vehicle) 4-33
Exit SPORT mode to switch to EV (Plug-in hybrid vehicle) 4-33

Cluster Display 4-34
Cluster Display Control 4-34
View Modes 4-35
Trip computer mode 4-36
Turn By Turn (TBT) mode 4-36
Driving Assist mode 4-36
Master warning group 4-37
User settings mode 4-39
Trip Computer (4.2-inch) - Hybrid Vehicle 4-46
Trip modes 4-46
Trip Computer (10.25-inch) - Hybrid Vehicle 4-49
Trip modes 4-49
Trip Computer (4.2-inch) - Plug-in Hybrid Vehicle 4-52
Trip modes 4-52
Trip Computer (10.25-inch) - Plug-in Hybrid Vehicle 4-55
Trip modes 4-55

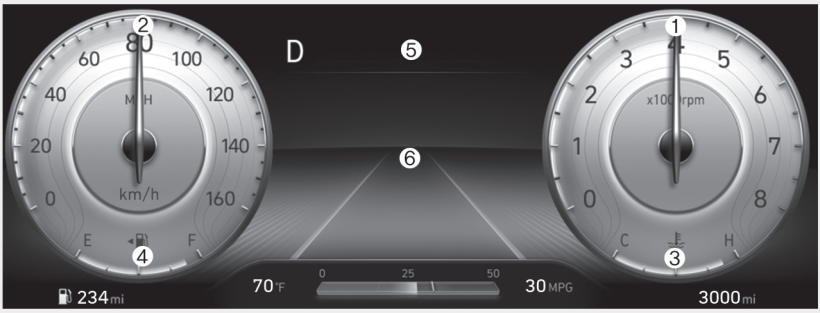
Vehicle Settings (Infotainment System) 4-58
Setting Your Vehicle 4-58

INSTRUMENT CLUSTER

■ 4.2 inch



■ 10.25-inch



The actual cluster in the vehicle may differ from the illustration.
For more information, refer to “Gauges and meters” section in this chapter.

ONX4PH042009N/ONX4043024N

1. Power gauge
2. Speedometer
3. Battery SOC (State of Charge) gauge
4. Fuel gauge
5. Warning and indicator lights
6. Cluster display (including Trip computer)

Instrument Cluster Control

Instrument panel illumination



OCN7040019L

You can adjust the brightness of the instrument panel illumination from the User Settings Mode on the cluster display when the ignition switch is on ('Lights → Illumination'). When the vehicle's parking lights or headlights are on, interior switch illumination intensity and mood lamps are also adjusted.

If your vehicle is equipped with additional navigation, please refer to the infotainment system manual separately supplied.

WARNING

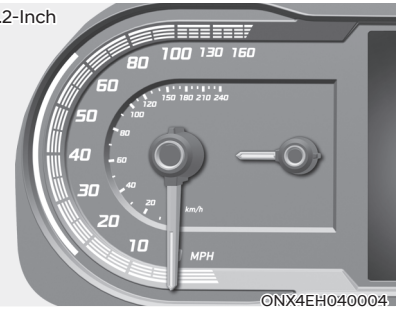
Never adjust the instrument cluster while driving. This could result in loss of control and lead to an accident that may cause vehicle damage, or lead to serious injury or death.

- **The brightness of the instrument panel illumination is displayed.**
- **When the brightness setting reaches either the minimum or maximum level, a chime will sound.**

Gauges and Meters

Speedometer

■ 4.2-Inch



ONX4EH040004

■ 10.25-inch



ONX4PH042011N

The speedometer indicates the speed of the vehicle and is calibrated in miles per hour (MPH) and/or kilometers per hour (km/h).

Power gauge

■ 4.2-Inch



ONX4H040004

■ 10.25-inch



OCN7H040002

The power gauge indicates whether the current driving condition is fuel efficient or not.

- CHARGE : Shows that the energy made by the vehicle is being converted to electrical energy. (Regenerated energy)
- ECO : Shows that the vehicle is being driven in an Eco-friendly manner.
- POWER : Shows that the vehicle is exceeding the Eco-friendly range.

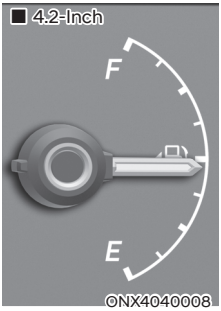
Information

Accordance to the power gauge area the "EV" indicator comes on or off.

- **"EV" indicator ON : Vehicle is driven using the electric motor or the gasoline engine is stopped.**
- **"EV" indicator OFF : Vehicle is driven using the gasoline engine.**

Fuel gauge

■ 4.2-Inch



ONX4040008

■ 10.25-inch



OCN7H040016N

This gauge indicates the approximate amount of fuel remaining in the fuel tank.

Information

- **The fuel tank capacity is given in chapter 2.**
- **The fuel gauge is supplemented by a low fuel warning light, which will illuminate when the fuel tank is nearly empty.**
- **On inclines or curves, the fuel gauge pointer may fluctuate or the low fuel warning light may come on earlier than usual due to the movement of fuel in the tank.**

WARNING

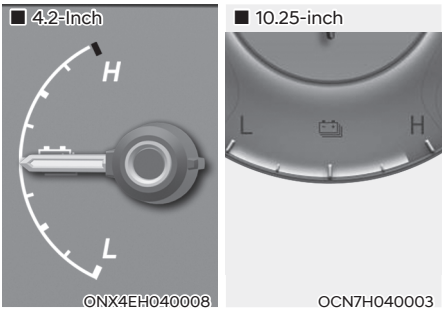
Running out of fuel can expose vehicle occupants to danger.

You must stop and obtain additional fuel as soon as possible after the warning light comes on or when the gauge indicator comes close to the "E (Empty)" level.

NOTICE

Avoid driving with an extremely low fuel level. Running out of fuel could cause the engine to misfire damaging the catalytic converter.

Hybrid battery SOC (State of Charge) gauge



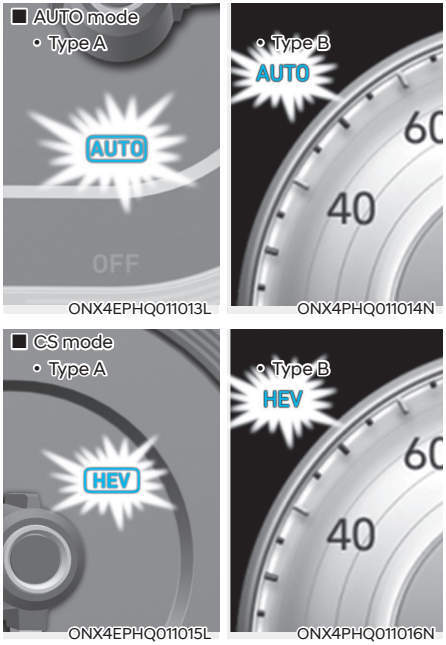
This gauge indicates the remaining hybrid battery power. If the SOC is near the “L (Low)” level, the vehicle automatically operates the engine to charge the battery.

However, if the Service Indicator (HEV) and Malfunction Indicator Lamp (MIL) turn on when the SOC gauge is near the “L (Low)” level, we recommend the vehicle be checked by an authorized HYUNDAI dealer.

NOTICE

Never try to start the vehicle if the fuel tank is empty. In this condition, the engine cannot charge the high voltage battery of the hybrid system. If you try to start the vehicle when the fuel is empty, the high voltage battery will become discharged and be damaged.

Plug-in hybrid mode indicator



- CD (Charge Depleting, Electric) mode : The high-voltage (hybrid) battery is used to drive the vehicle.
- AUTO mode : CD mode and CS mode are selected automatically depending on road conditions.
- CS (Charge Sustaining, Hybrid) mode : The high-voltage (hybrid) battery and gasoline engine is used to drive the vehicle.

Information

Even when the battery charging rate is high and driving in electric mode is possible, engine may turn on in some areas to protect the system.

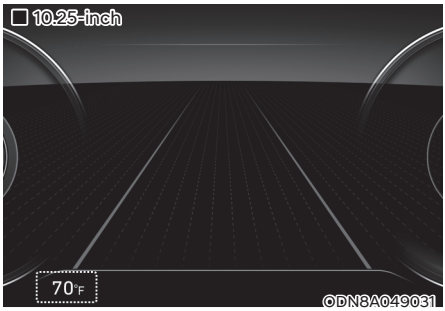
Outside temperature gauge

■ 4.2-Inch



OTMA048112

☐ 10.25-inch



ODN8A049031

The outside ambient temperature is displayed in the lower portion of the cluster display. The temperature will read in Fahrenheit or Celsius depending on the units selected in the User Settngs menu.

Note that the temperature indicated on the cluster display may not change as quickly as the outside temperature (there may be a slight delay before the temperature changes.)

You can change the temperature unit from the Settings menu in the cluster or infotainment system screen.

Select:

- Setup → Unit → Temperature Unit → °F/°C (for cluster type)
- Setup → General Settings → Unit → Temperature Unit → °C/°F (for infotainment system screen type)

Both the temperature unit on the cluster LCD display and infotainment system screen will change.

Odometer

■ 4.2-Inch



OTMA048183

☐ 10.25-inch



OCN7H040004N

The odometer indicates the total distance that the vehicle has been driven and should be used to determine when periodic maintenance is required.

Distance to empty

■ 4.2-Inch



ONX4043026N

■ 10.25-inch



OCN7040016N

- The distance to empty is the estimated mileage the vehicle can be driven with the remaining fuel.
- If the estimated distance is below 1 mi. (1 km), the trip computer will display “---” as distance to empty. When this occurs, the remaining fuel is very low. Refuel the vehicle immediately.

Information

- **If the vehicle is not on level ground or the battery power has been interrupted, the distance to empty function may not operate correctly.**
- **The distance to empty may differ from the actual driving distance as it is an estimate of the available driving distance.**
- **The Distance to Empty indicator may not change accurately if less than 1.5 gallons of fuel are added to the vehicle.**
- **The distance to empty may vary significantly based on driving conditions, driving habits, and condition of the vehicle.**

Fuel economy (for 10.25-inch cluster)



OTMA040002

The average fuel economy (1) and instant fuel economy (2) is displayed at the bottom of the cluster.

Automatic reset

To automatically reset the average fuel economy, select between "After Ignition" or "After Refueling" from the Settings menu in the infotainment system screen.

Transmission Shift Indicator (if equipped)

Automatic transmission shift indicator

■ 4.2-Inch



OTM040016

■ 10.25-inch



The Transmission Shift Indicator is shown in the upper corner of the cluster display to indicate the current gear or Park(P).

Warning and Indicator Lights

Information

Make sure that all warning lights are OFF after starting the engine. If any light is still ON, this indicates a situation that needs attention.

Seat belt warning light

This warning light informs the driver that the seat belt is not fastened.

For more details, refer to “Seat Belts” section in chapter 3.

Air bag warning light

This warning light illuminates:

- When you set the ignition switch or the Engine Start/Stop button to the ON position.
  - The air bag warning light illuminates for about 3 ~ 6 seconds and then turns off when all checks have been performed.
- The air bag warning light will remain illuminated if there is a malfunction with the Safety Restraint System (SRS) air bag operation.

  If the Air Bag warning light remains illuminated while driving, have the vehicle inspected by an authorized HYUNDAI dealer.

Parking brake warning light



This warning light illuminates:

- When you set the ignition switch or the Engine Start/Stop button to the ON position.
  - The parking brake light illuminates for about 3 seconds and will then turn off once the parking brake is released.
- Whenever the parking brake is applied.
- Whenever the brake fluid level in the reservoir is low.
  - If the warning light illuminates with the parking brake released, it indicates the brake fluid level in the reservoir is low.
- Whenever the regenerative brake does not operate.

If the brake fluid level in the reservoir is low:

1. Drive carefully to the nearest safe location and stop your vehicle.
2. With the engine stopped, check the brake fluid level immediately and add fluid as required **(For more details, refer to "Brake Fluid" section in chapter 9)**. After adding brake fluid, check all brake components for fluid leaks. If a brake fluid leak is found, or if the warning light remains on, or if the brakes do not operate properly, do not drive the vehicle. Have the vehicle inspected by an authorized HYUNDAI dealer.

Dual-diagonal braking system

Your vehicle is equipped with dual-diagonal braking system. This means you still have braking on two wheels even if one of the dual systems should fail.

With only one of the dual systems working, more than normal pedal travel and greater pedal pressure is required to stop the vehicle.

Also, the vehicle will not stop in as short a distance with only a portion of the brake system working.

If you experience a malfunction with the brake system while driving, attempt to slow your vehicle by coasting or by using engine braking. You may be able to reduce your vehicle speed by manually downshifting to a lower gear. Use Manual Shift Mode using either the gear shift button or the paddle shifters (if equipped) to shift to a lower gear.

WARNING

Parking Brake & Brake Fluid Warning Light

Driving the vehicle with a warning light ON is dangerous. If the Parking Brake warning light illuminates with the parking brake released, it indicates that the brake fluid level is low.

If this occurs, have the vehicle inspected by an authorized HYUNDAI dealer.

Regenerative brake warning light



This warning light illuminates:

When the regenerative brake does not operate and the brake does not perform well. This causes the Brake Warning light (red) and Regenerative Brake Warning Light (yellow) to illuminate simultaneously.

If this occurs, drive safely and have the vehicle inspected by an authorized HYUNDAI dealer.

The operation of the brake pedal may be more difficult than normal and the braking distance may increase.

Anti-lock Brake System (ABS) warning light



This warning light illuminates:

- When you set the ignition switch or the Engine Start/Stop button to the ON position.
  - The ABS warning light illuminates for about 3 seconds and then goes off.
- Whenever there is a malfunction with the ABS.

  Note that the hydraulic braking system will still be operational even if there is a malfunction with the ABS. If the ABS warning light remains illuminated while driving, have the vehicle inspected by an authorized HYUNDAI dealer.

Electronic Brake Force Distribution (EBD) system warning light



When the ABS warning and Parking Brake warning lights are on simultaneously, it may indicate a problem with the Electronic Brake Force Distribution system.

If both the ABS warning light and the Parking Brake warning light remain illuminated while driving, have the vehicle inspected by an authorized HYUNDAI dealer.

WARNING

Electronic Brake Force Distribution (EBD) System Warning Light

When both ABS and Parking Brake warning lights are on, the brake system will not work normally and you may experience an unexpected and dangerous situation during sudden braking.

If this occurs, avoid high speed driving and abrupt braking.

Have the vehicle inspected by an authorized HYUNDAI dealer as soon as possible.

Information - Electronic Brake Force Distribution (EBD) system warning light

When the ABS warning light is on or both ABS and Parking Brake warning lights are on, the speedometer, odometer, or tripmeter may not work. Also, the EPS warning light may illuminate and the steering effort may increase or decrease.

If this occurs, have the vehicle inspected by an authorized HYUNDAI dealer as soon as possible.

Motor Driven Power Steering (MDPS) warning light



This warning light illuminates:

- When you set the ignition switch or the Engine Start/Stop button to the ON position.
  - The electric power steering Warning light illuminates for about 3 seconds and then goes off.
- Whenever there is a malfunction with the MDPS.

  If the MDPS warning light remains illuminated while driving, have the vehicle inspected by an authorized HYUNDAI dealer.

Malfunction Indicator Lamp (MIL)



This indicator light illuminates:

- When you set the ignition switch or the Engine Start/Stop button to the ON position.
  - The malfunction indicator light illuminates for about 3 seconds and then goes off.
- Whenever there is a malfunction with either the emission control system or the engine or the vehicle powertrain.

  If the MIL warning light remains illuminated while driving, have the vehicle inspected by an authorized HYUNDAI dealer.
- If the enhanced engine protection system becomes activated due to lack of engine oil, engine power will be limited. If such condition continues repeatedly, the Malfunction Indicator Lamp will illuminate.

NOTICE

- **Driving with the Malfunction Indicator Lamp (MIL) on may cause damage to the emission control system which could affect drivability and/or fuel economy.**
- **If the enhanced engine protection system becomes activated due to lack of engine oil, engine power will be limited. If such condition continues repeatedly, the Malfunction Indicator Lamp will illuminate.**

NOTICE

If the Malfunction Indicator Lamp (MIL) illuminates, potential catalytic converter damage is possible which could result in loss of engine power.

If this occurs, have the vehicle inspected by an authorized HYUNDAI dealer as soon as possible.

NOTICE

If the oil pressure lowers due to insufficient engine oil, etc., the engine oil pressure warning light turns on and an enhanced engine protection system that limits the engine's power is activated. After that, engine warning light turns on if driving repeatedly and continuously.

Electronic Parking Brake (EPB) warning light EPB

This warning light illuminates:

- When you set the ignition switch or the Engine Start/Stop button to the ON position.
  - The EPB warning light illuminates for about 3 seconds and then goes off.
- Whenever there is a malfunction with the EPB.

  If the EPB warning light remains illuminated while driving, have the vehicle inspected by an authorized HYUNDAI dealer.

Information

The Electronic Parking Brake (EPB) warning light may illuminate when the Electronic Stability Control (ESC) indicator light comes on to indicate that the ESC is not working properly (This does not indicate malfunction of the EPB).

AUTO HOLD indicator light

AUTO HOLD

This indicator light illuminates:

- [White] When you activate the auto hold system by pressing the AUTO HOLD switch.
- [Green] When you stop the vehicle completely by depressing the brake pedal with the Auto Hold system activated.
- [Yellow] Whenever there is a malfunction with the Auto Hold system.

  If the AUTO HOLD indicator light remains YELLOW while driving, have the vehicle inspected by an authorized HYUNDAI dealer.

For more details, refer to “Auto Hold” section in chapter 6.

Charging system warning light



This warning light illuminates:

When the battery is not being charged while the engine is running. Immediately turn OFF all electrical accessories. Try not to use electrically operated controls, such as the power windows. Keep the engine running.

Have the vehicle inspected by an authorized HYUNDAI dealer as soon as possible.

Engine oil pressure warning light



This warning light illuminates:

When the engine oil pressure is low.

If the engine oil pressure is low:

1. Drive carefully to the nearest safe location and stop your vehicle.
2. Turn the engine off and check the engine oil level **(For more details, refer to “Engine Oil” section in chapter 9)**. If the level is low, add oil as required.

If the warning light remains on after adding oil or if oil is not available, have the vehicle inspected by an authorized HYUNDAI dealer as soon as possible.

Continued driving with the warning light on may cause engine failure.

Information

When engine oil pressure decreases due to insufficient engine oil, etc., the Engine Oil Pressure warning light will illuminate. In addition, the enhanced engine protection system which limits engine power will be activated. When the engine oil pressure is restored, the warning light and the enhanced engine protection system will turn off after the engine is restarted.

NOTICE

If the engine is not stopped immediately after the Engine Oil Pressure warning light is illuminated, severe damage could result.

Low fuel level warning light



This warning light illuminates:

When the fuel tank is nearly empty.

Add fuel as soon as possible.

NOTICE

Driving with the Low Fuel Level warning light on or with the fuel level below "E" can cause the engine to misfire and damage the catalytic converter.

Service warning light



This warning light illuminates:

- When you set the ignition switch or the Engine Start/Stop button to the ON position.
  - The service warning light illuminates for approximately 3 seconds and then turns off when all checks have been performed.
- When there is a problem with the hybrid vehicle control system or hardware.

When the warning light illuminates while driving, or does not go OFF after starting the vehicle, have the vehicle inspected by an authorized HYUNDAI dealer.

Charging Cable Connection Indicator (Plug-in hybrid vehicle)



This indicator illuminates in red when the charging cable is connected.

Master warning light



This warning light illuminates:

When there is a malfunction in operation in any of the following systems:

- Forward Collision-Avoidance Assist malfunction
- Forward Collision-Avoidance Assist radar blocked
- Blind-Spot Collision-Avoidance Assist malfunction (if equipped)
- Blind-Spot Collision-Avoidance Assist radar blocked (if equipped)
- LED headlight malfunction (if equipped)
- High Beam Assist malfunction (if equipped)
- Smart Cruise Control malfunction (if equipped)
- Smart Cruise Control radar blocked (if equipped)
- Tire Pressure Monitoring System (TPMS) malfunction

To identify the details of the warning, look at the cluster display.

Low tire pressure warning light



This warning light illuminates:

- When you set the ignition switch or the Engine Start/Stop button to the ON position.
  - The low tire pressure warning light illuminates for approximately 3 seconds and then goes off.
- When one or more of your tires are significantly underinflated. (The location of the underinflated tires are displayed on the cluster display.)

For more details, refer to “Tire Pressure Monitoring System (TPMS)” section in chapter 8.

This warning light remains ON after blinking for approximately 60 seconds, or repeatedly blinks ON and OFF in 3 second intervals:

When there is a malfunction with the TPMS.

If this occurs, have the vehicle inspected by an authorized HYUNDAI dealer as soon as possible.

For more details, refer to “Tire Pressure Monitoring System (TPMS)” section in chapter 8.

WARNING

Safe Stopping

- **The TPMS cannot alert you to severe and sudden tire damage caused by external factors.**
- **If you notice any vehicle instability, immediately take your foot off the accelerator pedal, apply the brakes gradually with light force, and slowly move to a safe position off the road.**

Forward Safety warning light



This warning light illuminates:

- When you set the Engine Start/Stop button to the ON position.
  - The Forward Safety warning light illuminates for approximately 3 seconds and then goes off.
- Whenever there is a malfunction with Forward Collision-Avoidance Assist.

If this occurs, have the vehicle inspected by an authorized HYUNDAI dealer.

For more details, refer to “Forward Collision-Avoidance Assist (FCA)” section in chapter 7.

Lane Safety indicator light (if equipped)



This indicator light illuminates:

- [Green] When Lane Keeping Assist operating conditions are satisfied.
- [White] When Lane Keeping Assist operating conditions are not satisfied.
- [Yellow] Whenever there is a malfunction with Lane Keeping Assist.

  If this occurs, have the vehicle inspected by an authorized HYUNDAI dealer.

For more details, refer to “Lane Keeping Assist (LKA)” section in chapter 7.

All Wheel Drive (AWD) warning light



This warning light illuminates:

Whenever there is a malfunction with the AWD system.

If this occurs, have the vehicle inspected by an authorized HYUNDAI dealer.

For more details, refer to "All Wheel Drive (AWD)" section in chapter 6.

All Wheel Drive (AWD) LOCK indicator light



This indicator light illuminates:

- Once you set the ignition switch or Engine Start/Stop Button to the ON position.
  - It illuminates for approximately 3 seconds and then goes off.
- When you select AWD Lock mode by pressing the AWD LOCK button.
  - The AWD LOCK mode is to increase the drive power when driving on wet pavement, snow covered roads and/or off-road.

NOTICE

Do not use AWD LOCK mode on dry paved roads or highway, it can cause noise, vibration or damage of AWD related parts.

LED headlight warning light



This warning light illuminates:

- When you set the ignition switch or the Engine Start/Stop button to the ON position.
  - The LED headlight warning light illuminates for approximately 3 seconds and then goes off.
- Whenever there is a malfunction with the LED headlight.

  If the LED headlight warning light remains illuminated while driving, have the vehicle inspected by an authorized HYUNDAI dealer.

This warning light blinks:

Whenever there is a malfunction with a LED headlight related part.

If this occurs, have the vehicle inspected by an authorized HYUNDAI dealer.

NOTICE

Continuous driving with the LED Headlight warning light on or blinking can reduce LED headlight life.

Icy road warning light



This warning light is to warn the driver the road may be icy.

When the temperature on the outside temperature gauge is approximately below 40°F (4°C), the Icy Road warning light and Outside Temperature Gauge blinks and then illuminates. Also, the warning chime sounds 1 time.

You can activate or deactivate Icy Road Warning function from the User Settings menu in the cluster LCD display.

- Setup → Vehicle Settings → Cluster → Icy Road Warning

Information

If the Icy Road warning light appears while driving, you should drive more attentively and safely refraining from over-speeding, rapid acceleration, sudden braking or sharp turning, etc.

Ready indicator



This indicator illuminates:

When the vehicle is ready to be driven.

- ON : Normal driving is possible.
- OFF : Normal driving is not possible, or a problem has occurred.

When the ready indicator goes OFF, there is a problem with the system. If this occurs, have the vehicle inspected by an authorized HYUNDAI dealer.

EV mode indicator



This indicator illuminates:

When the vehicle is driven by the electric motor.

Electronic Stability Control (ESC) indicator light



This indicator light illuminates:

- When you set the ignition switch or the Engine Start/Stop button to the ON position.
  - The Electronic Stability Control indicator light illuminates for about 3 seconds and then goes off.
- Whenever there is a malfunction with the ESC system.

  If this occurs, have the vehicle inspected by an authorized HYUNDAI dealer.

This indicator light blinks:

While the ESC is operating.

For more details, refer to “Electronic Stability Control (ESC)” section in chapter 6.

Electronic Stability Control (ESC) OFF indicator light



This indicator light illuminates:

- When you set the ignition switch or the Engine Start/Stop button to the ON position.
  - The ESC OFF indicator light illuminates for approximately 3 seconds and then goes off.
- When you deactivate the ESC system by pressing the ESC OFF button.

For more details, refer to “Electronic Stability Control (ESC)” section in chapter 6.

Immobilizer Indicator Light (without smart key)



This indicator light illuminates:

- When the vehicle detects the immobilizer in the key with the ignition switch in the ON position.
  - At this time, you can start the engine.
  - The indicator light goes off after starting the engine.

This indicator light blinks:

- When there is a malfunction with the immobilizer system.

  In this case, have the vehicle inspected by an authorized HYUNDAI dealer.

Immobilizer indicator light (with smart key)



This indicator light illuminates for up to 30 seconds:

When the vehicle detects the smart key in the vehicle with the Engine Start/Stop button in the ACC or ON position.

- Once the smart key is detected, you can start the engine.
- The indicator light goes off after starting the engine.

This indicator light blinks for a few seconds:

When the smart key is not in the vehicle.

- If the smart key is not detected, you cannot start the engine.

This indicator light illuminates for 2 seconds and goes off:

If the smart key is in the vehicle and the Engine Start/Stop button is ON, but the vehicle cannot detect the smart key.

If this occurs, we recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.

This indicator light blinks:

When there is a malfunction with the immobilizer system.

If this occurs, have the vehicle inspected by an authorized HYUNDAI dealer.

Downhill Brake Control (DBC) indicator light



This indicator light illuminates:

- When you set the ignition switch or the Engine Start/Stop button to the ON position.
  - The downhill brake control indicator light illuminates for about 3 seconds and then goes off.
- When you activate the system by pressing the DBC button.

This indicator light blinks:

When Downhill Brake Control system is operating.

This indicator light illuminates yellow:

Whenever there is a malfunction with Downhill Brake Control system.

If this occurs, have the vehicle inspected by an authorized HYUNDAI dealer.

For more details, refer to "Downhill Brake Control (DBC)" section in chapter 6.

Turn signal indicator light



This indicator light blinks:

When you operate the turn signal indicator stalk.

If any of the following occur, there may be a malfunction with the turn signal system.

- The turn signal indicator light illuminates but does not blink
- The turn signal indicator light blinks rapidly
- The turn signal indicator light does not illuminate at all

If any of these conditions occur, have the vehicle inspected by an authorized HYUNDAI dealer.

High beam indicator light



This indicator light illuminates:

- When the headlights are on and in the high beam position
- When the turn signal lever is pulled into the Flash-to-Pass position.

Low beam indicator light



This indicator light illuminates:

When the headlights are on.

Light ON indicator light



This indicator light illuminates:

When the tail lights or headlights are on.

High Beam Assist indicator light



This indicator light illuminates:

When the high-beam is on with the light switch in the AUTO position.

- [White] When High Beam Assist is ready to operate.
- [Green] When High Beam Assist is operating.

If your vehicle detects oncoming or preceding vehicles, High Beam Assist will switch the high beam to low beam automatically.

For more details, refer to “High Beam Assist (HBA)” section in chapter 5.

Cruise indicator light



This indicator light illuminates:

When the cruise control system is enabled.

For more details, refer to "Cruise Control (CC)" in chapter 7.

SPORT Mode indicator light



This indicator light illuminates

When you select "SPORT" mode as drive mode.

For more details, refer to "Drive Mode Integrated Control System" in chapter 6.

SMART Mode indicator light



This indicator light illuminates:

When you select "SMART" mode as drive mode.

For more details, refer to "Drive Mode Integrated Control System" in chapter 6.

Cluster Display Messages

Shift to P (if equipped)

This message is displayed if you try to turn off the vehicle without the shift button in the P (Park) position.

If this occurs, the Engine Start/Stop button turns to the ACC position.

Low key battery (if equipped)

When the Engine Start/Stop button is pressed to turn OFF the engine, this message may be displayed. This message indicates that the internal battery of the Smart Key is low. Consider replacing the Smart Key internal battery.

Press START button while turning wheel (if equipped)

This message is displayed if the steering wheel does not unlock normally when the Engine Start/Stop button is pressed.

You should press the Engine Start/Stop button while turning the steering wheel right and left.

Check steering wheel lock system (if equipped)

This message is displayed if the steering wheel does not lock normally while the Engine Start/Stop button is pressed to the OFF position.

Press brake pedal to start engine (if equipped)

This message is displayed if the Engine Start/Stop button changes to the ACC position twice by pressing the button repeatedly without depressing the brake pedal.

You can start the vehicle by depressing the brake pedal and then pressing the Engine Start/Stop button.

Key not in vehicle (if equipped)

This message is displayed if the smart key is not in the vehicle when you press the Engine Start/ Stop button.

When attempting to start the vehicle, always have the smart key with you.

Key not detected (if equipped)

This message is displayed if the smart key is not detected when you press the Engine Start/Stop button.

Press START button again (if equipped)

This message is displayed if you were unable to start the vehicle when the Engine Start/Stop button was pressed.

If this occurs, attempt to start the engine by pressing the Engine Start/ Stop button again.

If the warning message appears each time you press the Engine Start/Stop button, have the vehicle inspected by an authorized HYUNDAI dealer.

Press START button with key (if equipped)

This message is displayed if you press the Engine Start/Stop button while the warning message “Key not detected” is displayed.

At this time, the immobilizer indicator light blinks.

Check BRAKE SWITCH fuse (if equipped)

This message is displayed if the brake switch fuse is disconnected.

You need to replace the fuse with a new one before starting the engine.

If that is not possible, you can start the engine by pressing the Engine Start/ Stop button for 10 seconds in the ACC position.

Shift to P to start engine

This message is displayed if you try to start the engine in any other position except P (Park).

Information

For your safety, we recommend that you start the engine with the gear shifted to P (Park).

12V battery discharging due to additional electrical devices (if equipped)

This message is displayed if the 12V battery voltage is weak due to any non-factory electrical accessories (ex. dashboard camera) while parking. Be careful that the battery is not discharged.

If the message appears after removing the non-factory electrical accessories, have the vehicle inspected by an authorized HYUNDAI dealer.

Door, Hood, Liftgate open indicator



ONX4040009

This warning is displayed if any door or the hood or the liftgate is left open. The warning will indicate which door is open in the display.

CAUTION

Before driving the vehicle, you should confirm that the door, hood and liftgate are fully closed. Also, check there is no door/hood/liftgate open warning light or message displayed on the instrument cluster.

Sunroof open indicator (if equipped)



ONX4040010

This warning is displayed if you turn off the engine when the sunroof is open.

Close the sunroof securely before leaving your vehicle.

Low pressure



ONX4E040019

This warning message is displayed if the tire pressure is low. The corresponding tire on the vehicle will be illuminated.

For more details, refer to “Tire Pressure Monitoring System (TPMS)” section in chapter 8.

Wiper/Lights display



- This indicator displays which wiper speed is selected using the wiper control.
- This indicator displays which exterior light is selected using the lighting control.

You can activate or deactivate Wiper/ Lights display function from the User Settings menu in the cluster LCD display.

- Setup → User settings → Cluster → Wiper/Lights display

Low washer fluid (if equipped)

This message is displayed if the washer fluid level in the reservoir is nearly empty.

Have the washer fluid reservoir refilled.

Low fuel

This message is displayed if the fuel tank is almost out of fuel.

When this message is displayed, the low fuel level warning light in the cluster will come on.

It is recommended to look for the nearest fueling station and refuel as soon as possible.

NOTICE

Do not drive the vehicle with low fuel. Hybrid battery damage may occur when the fuel tank is completely empty.

Engine has overheated

This message is displayed when the engine coolant temperature is above 248°F (120°C). This means that the engine is overheated and may be damaged.

If your vehicle is overheated, refer to "Overheating" section in chapter 8.

Low engine oil

This warning message is displayed when the engine oil level should be checked.

If this warning message is displayed, check the engine oil level as soon as possible and add engine oil as required.

Slowly pour the recommended oil little by little into a funnel.

Use only the specified engine oil. (Refer to "Recommended Lubricants and Capacities" section in chapter 2.)

Do not overfill the engine oil. Make sure the oil level is not above F (Full) mark on the dipstick.

Information

After adding engine oil, if you travel approximately 18~37 miles (30~60 km) after the engine warms up, the warning message should disappear.

WARNING

When the engine oil level warning message appears, it is necessary to check if you have replaced the Engine oil according to the maintenance schedule in chapter 9. If it has not been checked and followed, the engine oil must be replaced first.

Check headlight (if equipped)

This message is displayed if the headlights are not operating properly. A headlight bulb may need to be replaced.

Make sure to replace the burned out bulb with a new one of the same wattage rating.

Check turn signal (if equipped)

This message is displayed if the turn signal lamps are not operating properly. A lamp may need to be replaced.

Make sure to replace the burned out bulb with a new one of the same wattage rating.

Check brake light (if equipped)

This message is displayed if the stop lamps are not operating properly. A lamp may need to be replaced.

Make sure to replace the burned out bulb with a new one of the same wattage rating.

Check headlight LED (if equipped)

This message is displayed if there is a problem with the LED headlight. Have the vehicle inspected by an authorized HYUNDAI dealer.

Ready to start driving

This message is displayed when the vehicle is ready to be driven.

Check regenerative brakes

This message is displayed when the brake performance is low or the regenerative brake does not work properly due to a failure in the brake system.

If this occurs, it may take longer for the brake pedal to operate and the braking distance may become longer.

Stop vehicle and check brakes

This message is displayed when a failure occurs in the brake system.

If this occurs, park the vehicle in a safe location and tow your vehicle to the nearest authorized HYUNDAI dealer and have the vehicle inspected.

Check Hybrid system

This message is displayed when there is a problem with the hybrid system. Refrain from driving when the warning message is displayed.

If this occurs, have the vehicle inspected by an authorized HYUNDAI dealer.

Stop safely and check Hybrid system

This message is displayed when there is a problem with the hybrid system. The "" indicator will blink and a warning chime will sound until the problem is solved. Refrain from driving when the warning message is displayed.

If this occurs, have the vehicle inspected by an authorized HYUNDAI dealer.

Check Hybrid system. Do not start engine

This message is displayed when the hybrid battery power (SOC) level is low. A warning chime will sound until the problem is solved. Refrain from driving when the warning message is displayed.

If this occurs, have the vehicle inspected by an authorized HYUNDAI dealer.

Stop safely and check power supply

This message is displayed when a failure occurs in the power supply system.

If this occurs, park the vehicle in a safe location and tow your vehicle to the nearest authorized HYUNDAI dealer and have the vehicle inspected.

Check virtual engine sound system

This message is displayed when there is a problem with the Virtual Engine Sound System (VESS).

If this occurs, have the vehicle inspected by an authorized HYUNDAI dealer.

Refill inverter coolant

This message is displayed when the inverter coolant is nearly empty.

You should refill the inverter coolant.

Park with engine On to charge battery

This message is displayed when the hybrid battery power (SOC) level is low.

If this occurs, park the vehicle in a safe location and wait until the hybrid battery is charged.

Start engine to avoid battery discharge

This message is displayed to inform the driver the 12V battery may be discharged if the ignition switch is in ON position (without the indicator ON).

Set the vehicle to the ready ( ) mode to prevent the 12V battery from being discharged.

Check regenerative brakes



OAEPHQ049827L

This message is displayed when the brake performance is low or the regenerative brake does not work properly due to a failure in the brake system.

In this case, it may take longer for the brake pedal to operate and the braking distance may become longer.

Check virtual engine sound system



OAEPHQ049828L

This message is displayed when there is a problem with the Virtual Engine Sound System (VESS).

In this case, have your vehicle inspected by an authorized HYUNDAI dealer.

Unplug vehicle to start (Plug-in hybrid vehicle)



OAEPHQ049829L

This message is displayed when you start the engine without unplugging the charging cable. Unplug the charging cable, and then start the vehicle.

Remaining time (Plug-in hybrid vehicle)



OAEPHQ049818L

This message is displayed to notify the remaining time to fully charge the battery.

Wait until fuel door unlocks (Plug-in hybrid vehicle)



OTMPHQ010032L

This message is displayed when you attempt to unlock the fuel filler door with the fuel tank pressurized. Wait until the fuel tank is depressurized.

NOTICE

- **It may take up to 20 seconds to unlock fuel filler door.**
- **If the fuel filler door does not open because ice has formed around it, tap lightly or push on the door to break the ice and release the door.**
- **Do not pry on the door. If necessary, spray around the door with an approved de-icer fluid (do not use radiator anti-freeze) or move the vehicle to a warm place and allow the ice to melt.**

Check fuel door (Plug-in hybrid vehicle)



OAEPHQ049831L

The message is displayed when the fuel filler door is open while in driving or an abnormality has occurred.

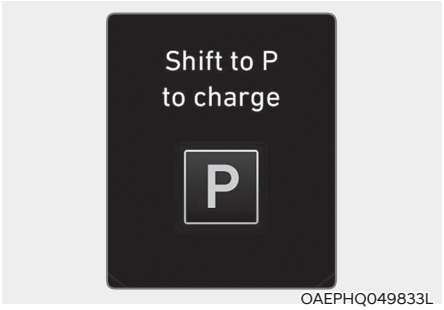
Fuel door open (Plug-in hybrid vehicle)



OAEPHQ049832L

This message is displayed when thefuel filler door opens after the fuel tank is depressurized. If this message is displayed, you can refuel the fuel tank.

Shift to P to charge (Plug-in hybrid vehicle)



OAEPHQ049833L

This message is displayed when the charging connector is plugged with the shift button in R (Reverse), N (Neutral) or D (Drive). Move the shift button to P (Park) and re-start the charging process.

Switching to Hybrid mode to allow heating or air conditioning (Plug-in hybrid vehicle)



OAEPHQ049842L

This message is displayed when the vehicle automatically switches to HEV mode to allow heating or air conditioning. It is when the coolant temperature is low (below 7°F (-14°C)) and the driver turns on the heating or cooling system.

If the coolant temperature gets higher than 7°F (-14°C) or the driver turns off the heating or cooling system the vehicle returns to its default (EV) mode.

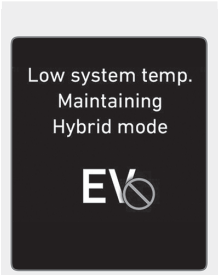
Maintaining Hybrid mode to allow heating or air conditioning (Plug-in hybrid vehicle)



OAEPHQ049841L

This message is displayed when the vehicle maintains the HEV mode to allow heating or air conditioning. The mode does not change when the driver presses the [HEV] button to switch from the HEV mode to EV mode while the heating and cooling system is on and the coolant temperature is below 7°F (-14°C).

Low/High System Temp. Maintaining Hybrid mode (Plug-in hybrid vehicle)



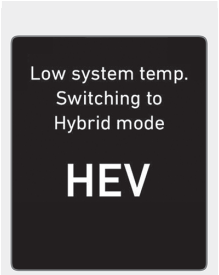
OAEPHQ049834L



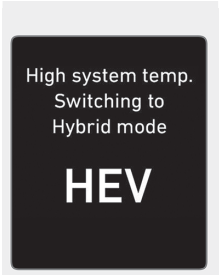
OAEPHQ049835L

This message is displayed when the temperature of the high-voltage (hybrid) battery is too low or too high. This warning message is to protect the battery and the hybrid system.

Low/High System Temp. Switching to Hybrid mode (Plug-in hybrid vehicle)



OAEPHQ049836L



OAEPHQ049837L

This message is displayed when the temperature of the high-voltage (hybrid) battery is too low or high. This warning message is to protect the battery and the hybrid system.

Switching to Hybrid mode to lubricate engine (Plug-in hybrid vehicle)



OAEPHQ049838L

This message is displayed when the vehicle is automatically switched to the HEV mode to lubricate engine while the ignition switch is in the ON position.

Maintaining Hybrid mode to protect engine (Plug-in hybrid vehicle)



OAEPHQ049839L

This message is displayed when the [HEV] button is pressed but it is impossible to switch from the HEV mode to EV mode due to engine lubrication.

Exit SPORT mode to switch to EV (Plug-in hybrid vehicle)

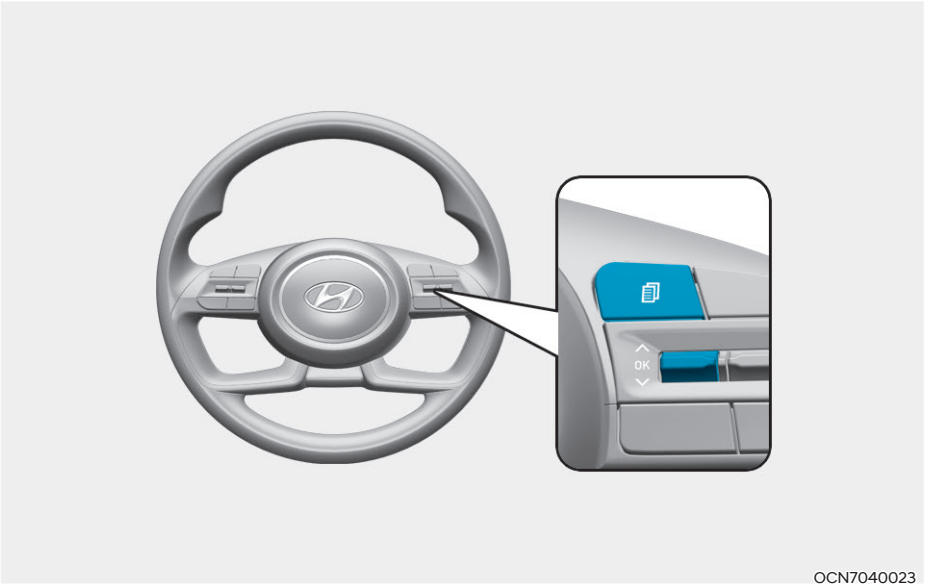


OAEPHQ049840L

This message is displayed when [HEV] button is pressed but it is impossible to switch from the HEV mode to EV mode because the SPORT mode is engaged.

CLUSTER DISPLAY

Cluster Display Control



OCN7040023

The cluster display modes can be changed by using the control buttons.

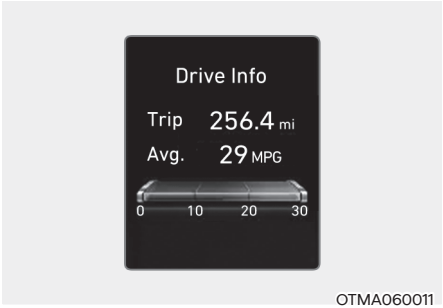
Switch	Function
	MODE button for changing modes
∧, ∨	MOVE switch for changing items
OK	SELECT/RESET button for setting or resetting the selected item

View Modes

Modes	Symbol	Explanation
Trip Computer		This mode displays driving information such as the tripmeter, fuel economy, etc. For more details, refer to "Trip Computer" in this chapter.
Turn By Turn (TBT)		This mode displays the state of the navigation.
Driving Assist		This mode displays the state of : - Driver Attention Warning - Driving force distribution (AWD) **For more information, refer to "Lane Keeping Assist (LKA)", "Driver Attention Warning (DAW)", "Smart Cruise Control (SCC)", "Highway Driving Assist (HDA)" in chapter 7 and "All Wheel Drive (AWD)" in chapter 6.**
User Settings		In this mode, you can change settings of the doors, lamps, etc.
Warning		This mode displays warning messages related to the lamp malfunction, etc. This mode displays information related to the tire pressure (TPMS), the state of driving force distribution.

The information provided may differ depending on which functions are applicable to your vehicle.

Trip computer mode

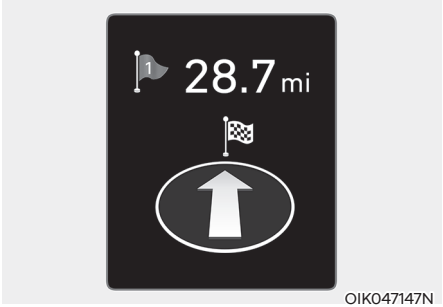


OTMA060011

The trip computer mode displays information related to vehicle driving parameters including fuel economy, tripmeter information and vehicle speed.

For more details, refer to "Trip Computer" section in this chapter.

Turn By Turn (TBT) mode



OIK047147N

This mode displays the state of the navigation.

Driving Assist mode



OTMA040003

LKA/SCC/LFA/HDA

This mode displays the state of Lane Keeping Assist, Smart Cruise Control, Lane Following Assist and Highway Driving Assist

For more details, refer to each function information in chapter 7.

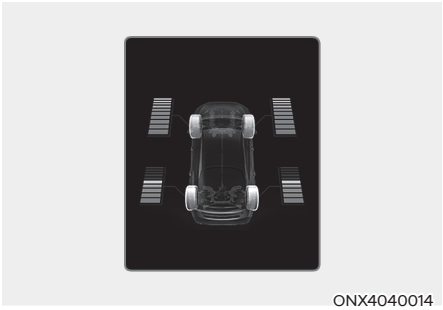


ONX4E071174L

Driver Attention Warning

This mode displays the state of Driver Attention Warning.

For more details, refer to "Driver Attention Warning (DAW)" in chapter 7.



ONX4040014

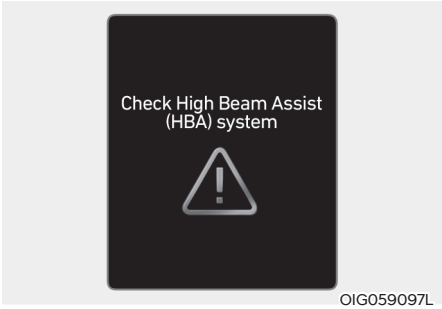
Driving force distribution (AWD)

This mode displays information related to AWD driving force.

If the vehicle is in AWD lock state, this mode is not displayed.

For detailed information, refer to the "Four Wheel Drive" in the chapter 6.

Master warning group



OIG059097L

This warning light informs the driver the following situations.

- Forward Collision-Avoidance Assist malfunction
- Forward Collision-Avoidance Assist radar blocked
- Blind-Spot Collision-Avoidance Assist malfunction (if equipped)
- Blind-Spot Collision-Avoidance Assist radar blocked (if equipped)
- LED headlight malfunction (if equipped)
- High Beam Assist malfunction (if equipped)
- Smart Cruise Control malfunction (if equipped)
- Smart Cruise Control radar blocked (if equipped)
- Tire Pressure Monitoring System (TPMS) malfunction

The Master Warning Light illuminates if one or more of the above warning situations occur.

At this time, a Master Warning icon (⚠) will appear beside the User Settings icon (⚙), on the cluster display.

If the warning situation is solved, the master warning light will be turned off and the Master Warning icon will disappear.



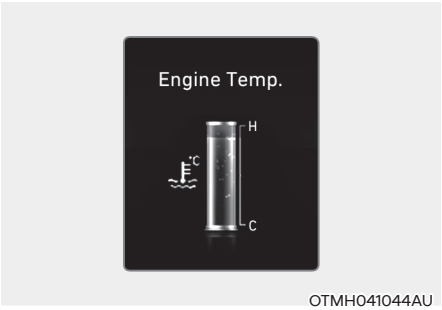
ONX4E040023

Tire Pressure

This mode displays information related to Tire Pressure.

For more details, refer to "Tire Pressure Monitoring System (TPMS)" in chapter 8.

Engine coolant temperature



OTMH041044AU

This engine coolant temperature gauge display shows the temperature of the engine coolant when the engine is running.

NOTICE

When the gauge indicator gets out of the normal range, toward the "H(Hot)" position, it indicates overheating of the engine. It may damage the engine.

Do not continue driving with the overheated engine.

For more details, refer to "If the Engine Overheats" section in the chapter 8.

User settings mode



ONX4E040026

In this mode, you can change the settings of the instrument cluster, doors, lamps, etc.

1. Driver Assistance
2. ECO vehicle
3. Cluster
4. Lights
5. Door
6. Convenience
7. ECO vehicle
8. Units
9. Reset

The information provided may differ depending on which functions are applicable to your vehicle.

Shift to P to edit settings

This warning message appears if you try to adjust the User Settings while driving.

For your safety, change the User Settings after parking the vehicle, applying the parking brake and pressing the P (Park) button.

Quick guide help

This mode provides quick guides for the systems in the User Settings mode.

Select an item, press and hold the OK button.

For more details, about each system, refer to this Owner's Manual.

Information

When the infotainment system is applied, only the User's Setting mode on the infotainment system is supported but the User's Setting mode on the instrument cluster is not supported.

1. Driver Assistance

Items	Explanation
Speed Limit (If equipped)	To adjust the Speed Limit fuction. • Speed Limit Offset • Speed Limit Assist / Speed Limit Warning / Off **For more details, refer to "Intelligent Speed Limit Assist (ISLA)" in chapter 7.**
Warning Timing	To adjust the warning volume of the driver assistance system. • Normal / Late
Warning Methods	To adjust or set the Warning Methods of the driver assistance system. • Warning Volume: High / Medium / Low • Haptic Warning: On/Off • Lane Safety Audible Warning Off: On/Off
Driver Attention Warning	• Leading Vehicle Departure Alert To activate or deactivate the Leading Vehicle Departure Alert. • Inattentive Driving Warning To alert the driver's inattentive driving. **For more details, refer to "Driver attention Warning (DAW)" in chapter 7.**
Forward Safety	To adjust Forward Collision-Avoidance Assist • Active Assist / Warning Only / Off **For more details, refer to the "Forward Collision-Avoidance Assist (FCA)" in chapter 7.**
Lane Safety	To adjust Lane Keeping Assist • Assist / Warning Only / Off **For more details, refer to "Lane Keeping Assist (LKA)" in chapter 7.**
Blind-Spot Safety	• Safe Exit Warning To activate or deactivate Safe Exit Warning. **For more details, refer to "Safe Exit Warning (SEW)" in chapter 7.** • Active Assist / Warning Only / Off
Parking Safety	• Parking Distance Warning Auto On To activate or deactivate Parking Distance Warning Auto On. **For more details, refer to "Forward/Reverse Parking Distance Warning (PDW)" in chapter 7.** • Rear Cross-Traffic Safety To activate or deactivate Reverse Parking Collision-Avoidance Assist. **For more details, refer to "Rear Cross-Traffic Collision-Avoidance Assist (RCCA)" in chapter 7.**

✳ The information provided may differ depending on which functions are applicable to your vehicle.

2. ECO vehicle

Items	Explanation
Utility Mode	To activate or deactivate the Utility Mode. * Utility Mode: This is a mode for using electricity from high voltage battery. (not possible to drive) It's useful while camping, etc.
Green Zone EV Drive	To activate or deactivate the Green Zone EV Drive. * Green Zone EV Drive : When user select "Green Zone Drive", vehicle drives with EV mode as much as possible for protect atmospheric environment. (based on map info - School zone, park, indoor parking lots, etc.)
Coasting Guide	• Enable Coasting Guide : On/Off To inform driver when taking foot off from accelerator pedal by getting information from Navigation system. • Sound To adjust the sound of coasting guide.
Start Coasting	• Early/Normal/Late To select options when Coasting Pop-up is displayed.
Eco Coasting	To activate or deactivate the Eco Coasting.
Lock Charging Cable	To set the charging cable locking mode. • While charging, Always, Do not lock
AUX. BATTERY SAVER+	To activate or deactivate the Aux. Battery Saver+ function. When activated, the high voltage battery is used to keep the 12V battery charged.

3. Cluster

Items	Explanation
Reset fuel economy	• At vehicle start • After refueling • Manually To reset the fuel economy displayed.
Wiper/Lights Display	To activate or deactivate the Wiper/ Light mode. When activated, the cluster display shows the selected Wiper/Light mode whenever you changed the mode.
Traffic Signs	To set the traffic signs displayed.
Cluster Voice Guidance Volume	To adjust the cluster voice guidance volume.
Icy Road Warning	To activate or deactivate the icy road warning.
Theme Selection	You can select the theme of the cluster. • Type A Cluster : Theme A / Theme B / Theme C • Type B Cluster : Link to Drive Mode /CLASSIC A/CLASSIC B/CLASSIC C/ CUBE

4. Lights

Items	Explanation
Illumination	To adjust the illumination level. • Level 1~20
One Touch Turn Signal	• Off : The one touch turn signal function will be deactivated. • 3, 5, 7 Flashes : The turn signal indicator will blink 3, 5, or 7 times when the turn signal lever is moved slightly. **For more details, refer to “Lighting” in chapter 5.**
Ambient Light Brightness (if equipped)	• Off • Level 1/2/3/4
Ambient Light Color (if equipped)	• Polar White/Moon White/Ice Blue/Ocean Blue/Jade Green/Orchid Green/ Freesia Yellow/ Sunrise Red/Aurora Purple/Lightening Violet
Headlight Delay	To activate or deactivate the headlight delay function. **For more details, refer to "Lighting" in chapter 5.**
High Beam Assist	To activate or deactivate High Beam Assist function. **For more details, refer to "High Beam Assist (HBA)" in chapter 5.**

✳ The information provided may differ depending on which functions are applicable to your vehicle.

5. Door

Items	Explanation
Automatically Lock	• Enable on Shift : All doors will be automatically locked if the gear is shifted from the P (Park) position to the R (Reverse), N (Neutral), or D (Drive) position. (Only when the engine is running.) • Enable on Speed : All doors will be automatically locked when the vehicle speed exceeds 9.3 mph (15 km/h). • Off : The auto door lock operation will be deactivated.
Automatically Unlock	• On Shift to P: All doors will be automatically unlocked if the gear is shifted to the P (Park) position. (Only when the engine is running.) • On key out/On vehicle off : All doors will be automatically unlocked when the ignition key is removed from the ignition switch or the Engine Start/Stop button is set to the OFF position. • Off : The auto door unlock operation will be canceled.
Two Press Unlock	To Activate or deactivate Two Press Unlock function.
Power Liftgate	If this item is checked, the power liftgate function will be activated. **For more details, refer to "Power Liftgate" in chapter 5.**
Power Liftgate Opening Speed	To adjust the power liftgate speed. • Fast/Normal **For more details, refer to "Power Liftgate" in chapter 5.**
Power Liftgate Opening Height	To adjust the power liftgate Opening Height. • Full Open/Level 3/Level 2/Level 1/User Height Setting
Smart Liftgate	To activate or deactivate the smart liftgate. **For more details, refer to "Smart Liftgate" in chapter 5.**

✳ The information provided may differ depending on which functions are applicable to your vehicle.

6. Convenience

Items	Explanation
Seat Easy Access	• Off : The seat easy access function is deactivated. • Normal/Extended : When you turn off the engine, the driver's seat will automatically move rearward short (Normal) or long (Extended) for you to enter or exit the vehicle more comfortably. **For more details, refer to "Driver Position Memory System" in chapter 5.**
Rear Occupant Alert	To activate or deactivate the Rear Occupant Alert. **For more details, refer to "Rear Occupant Alert (ROA) system" in chapter 5.**
Welcome Mirror/Light	• On door unlock : The outside rearview mirrors are unfolded and the welcome light turns on automatically when the doors are unlocked. • On driver approach : The outside rearview mirrors are unfolded and the welcome light turns on automatically when the vehicle is approached with the smart key. **For more details, refer to "Welcome System" in chapter 5."**
Wireless Charging System	To activate or deactivate the wireless charging system in the front seat. **For more details, refer to "Wireless cellular phone charging system" in chapter 5.**
Auto Rear Wiper (in R)	To activate or deactivate the Auto Rear Wiper function. If you move the gear from D to R when the front wiper operates, the rear wiper will operate automatically. Then, if you move the gear from R to D, the rear wiper will stop."
Advanced Anti-Theft	To activate or deactivate the Advanced Anti-Theft function.
Service Interval	• Service Interval To activate or deactivate the service interval function. • Adjust Interval If the service interval menu is activated, you may adjust the time and distance. • Reset To reset the service interval.

✳ The information provided may differ depending on which functions are applicable to your vehicle.

7. Units

Items	Explanation
Speed Unit	To select the speed unit. (km/h, MPH)
Temperature Unit	To select the temperature unit. (°C,°F)
Fuel Economy Unit	To select the fuel economy unit. (km/L, L/100km, MPG)
Tire Pressure Unit	To select the tire pressure unit. (psi, kPa, bar)

8. Reset

✳ The information provided may differ depending on which functions are applicable to your vehicle.

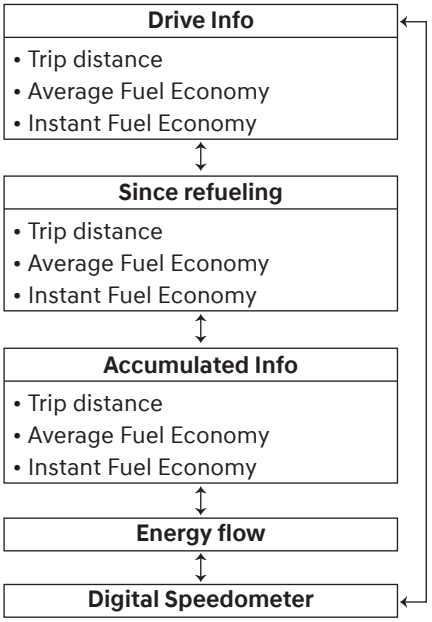
Trip Computer (4.2-inch) - Hybrid Vehicle

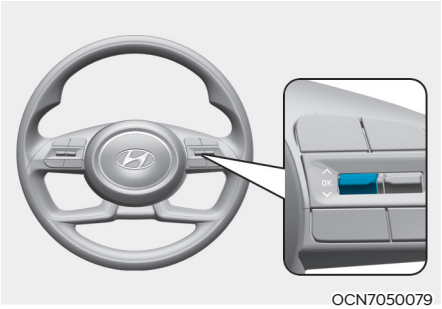
The trip computer is a microcomputer-controlled driver information system that displays information related to driving.

Information

Some driving information stored in the trip computer (for example, Average Vehicle Speed) resets if the battery connector is disconnected.

Trip modes





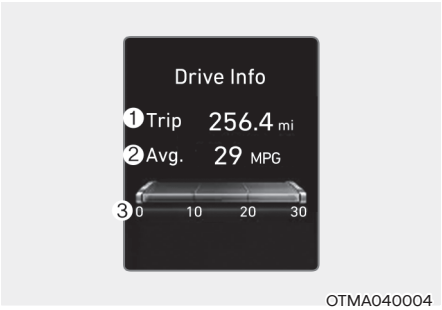
OCN7050079

To change the trip mode, toggle the "∧, ∨" switch on the steering wheel

- Manual reset

  To clear the average fuel economy manually, press the OK switch on the steering wheel for more than 1 second when the Average Fuel Economy is displayed.
- Automatic reset

  To automatically reset the average fuel economy, select between 'After Ignition' or 'After Refueling' from the Settings menu in the instrument cluster.
  - After Ignition: When the engine has been OFF for 3 minutes or longer the average fuel economy will reset automatically.
  - After Refueling: The average fuel economy will reset automatically after adding 1.6 gallons (6 liters) of fuel or more and after driving speed exceeds 1 mph (1 km/h).



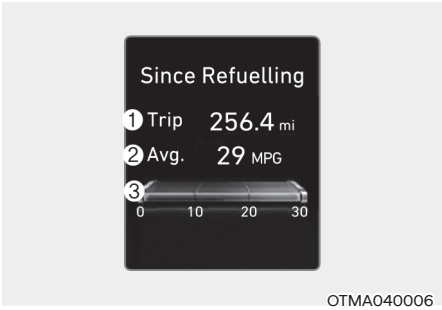
OTMA040004

Drive info

Trip distance (1), average fuel economy (2), and instant fuel economy (3) are displayed.

The information is combined for each ignition cycle. However, when the engine has been OFF, the Drive Info screen will reset.

To reset manually, press the OK switch on the steering wheel for more than 1 second when ‘Drive Info’ is displayed.

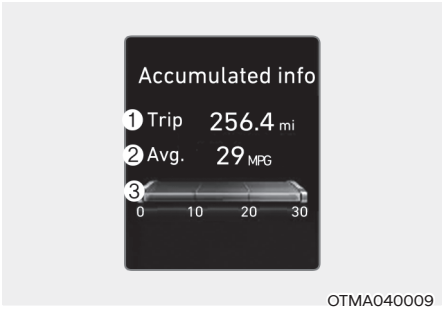


OTMA040006

Since refuel(l)ing

Trip distance (1), average fuel economy (2), and instant fuel economy (3) after the vehicle has been refueled are displayed.

To reset manually, press the OK switch on the steering wheel for more than 1 second when ‘Since Refueling’ is displayed.



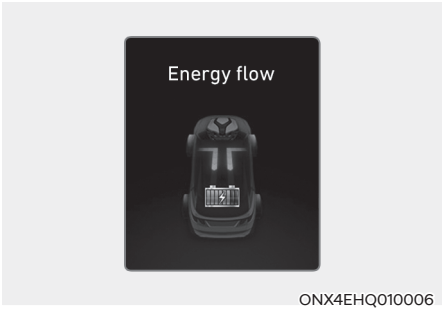
OTMA040009

Accumulated info

Accumulated trip distance (1), average fuel economy (2), and instant fuel economy (3) are displayed.

The information is accumulated starting from the last reset.

To reset manually, press the OK switch on the steering wheel for more than 1 second when 'Accumulated Info' is displayed.

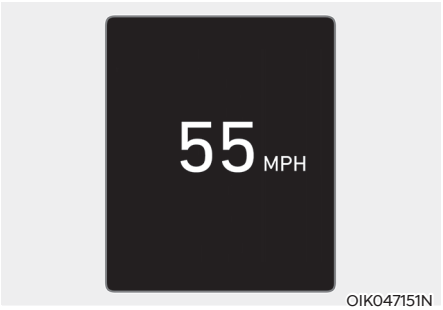


ONX4EHQ010006

Energy flow

The hybrid system informs the drivers its energy flow in various operating modes. While driving, the current energy flow is specified in 11 modes.

For more details, refer to the "Hybrid system" in chapter 1.



OIK047151N

Digital speedometer

Digital speedometer display shows the speed of the vehicle.

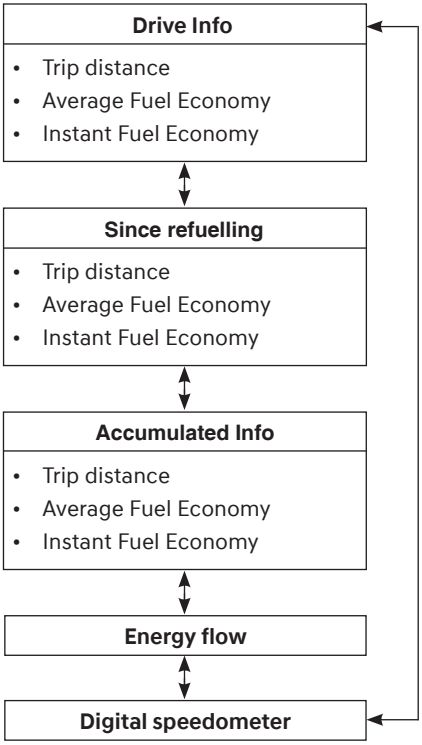
Trip Computer (10.25-inch) - Hybrid Vehicle

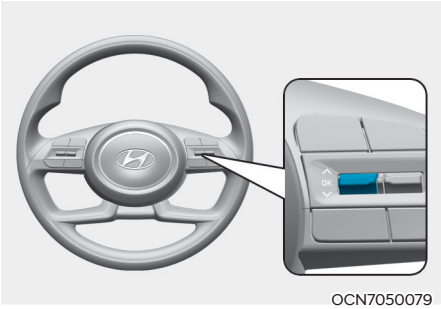
The trip computer is a microcomputer-controlled driver information system that displays information related to driving.

Information

Some driving information stored in the trip computer (for example, Average Vehicle Speed) resets if the battery connector is disconnected.

Trip modes





OCN7050079

To change the trip mode, toggle the "∧, ∨" switch on the steering wheel

- Manual reset

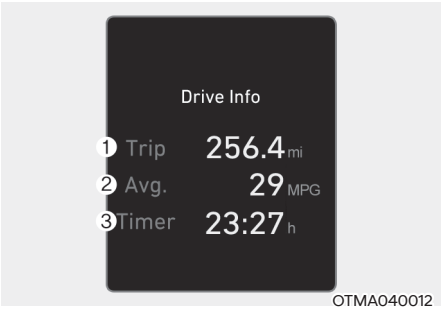
  To clear the average fuel economy manually, press the OK switch on the steering wheel for more than 1 second when the Average Fuel Economy is displayed.

- Automatic reset

  To automatically reset the average fuel economy, select between 'After Ignition' or 'After Refueling' from the Settings menu in the instrument cluster.

  - After Ignition: When the engine has been OFF for 3 minutes or longer the average fuel economy will reset automatically.
  - After Refueling: The average fuel economy will reset automatically after adding 1.6 gallons (6 liters) of fuel or more and after driving speed exceeds 1 mph (1 km/h).

✳ For 10.25-inch instrument cluster, you can check the fuel economy in the center bottom of the cluster.



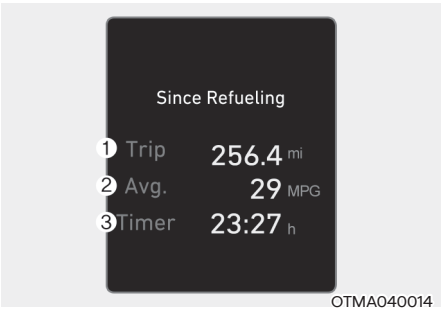
OTMA040012

Drive info

Trip distance (1), average fuel economy (2), and total driving time (3) are displayed.

The information is combined for each ignition cycle. However, when the engine has been OFF for 3 minutes or longer the Drive Info screen will reset.

To reset manually, press the OK switch on the steering wheel for more than 1 second when 'Drive Info' is displayed.

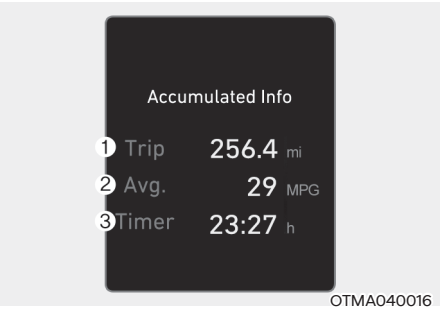


OTMA040014

Since refuel(l)ing

Trip distance (1), average fuel economy (2), and total driving time (3) after the vehicle has been refueled are displayed.

To reset manually, press the OK switch on the steering wheel for more than 1 second when 'Since Refueling' is displayed.



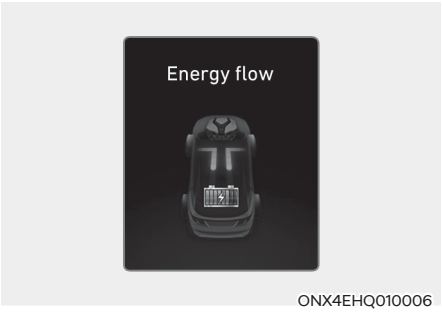
OTMA040016

Accumulated info

Accumulated trip distance (1), average fuel economy (2), and total driving time (3) are displayed.

The information is accumulated starting from the last reset.

To reset manually, press the OK switch on the steering wheel for more than 1 second when 'Accumulated Info' is displayed.



ONX4EHQ010006

Energy flow

The hybrid system informs the drivers its energy flow in various operating modes. While driving, the current energy flow is specified in 11 modes.

For more details, refer to the "Hybrid system" in chapter 1.



OTMA040018

Digital speedometer

Digital speedometer display shows the speed of the vehicle.

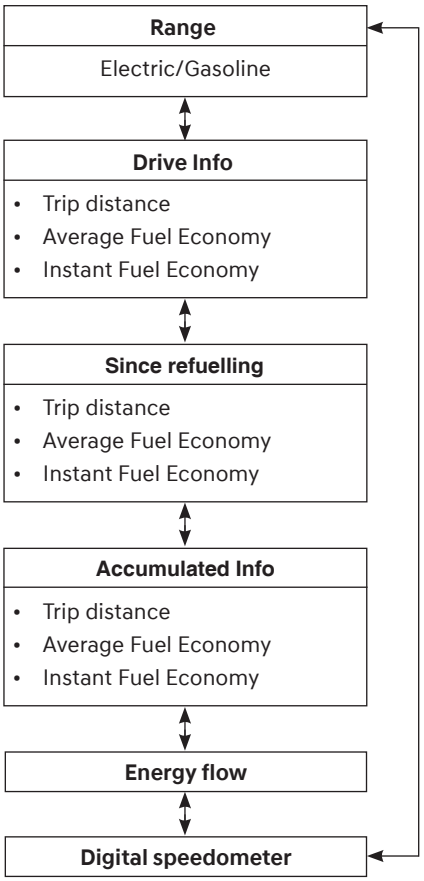
Trip Computer (4.2-inch) - Plug-in Hybrid Vehicle

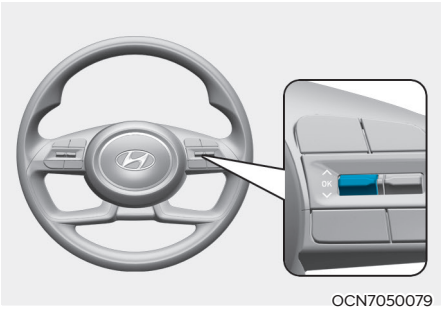
The trip computer is a microcomputer-controlled driver information system that displays information related to driving.

Information

Some driving information stored in the trip computer (for example Average Vehicle Speed) resets if the battery is disconnected.

Trip modes





OCN7050079

To change the trip mode, toggle the "∧, ∨" switch on the steering wheel

- Manual reset

  To clear the average fuel economy manually, press the OK switch on the steering wheel for more than 1 second when the Average Fuel Economy is displayed.
- Automatic reset

  To automatically reset the average fuel economy, select between 'After Ignition' or 'After Refueling' from the Settings menu in the instrument cluster.
  - After Ignition: When the engine has been OFF for 3 minutes or longer the average fuel economy will reset automatically.
  - After Refueling: The average fuel economy will reset automatically after adding 1.6 gallons (6 liters) of fuel or more and after driving speed exceeds 1 mph (1 km/h).



OAEPH049534R

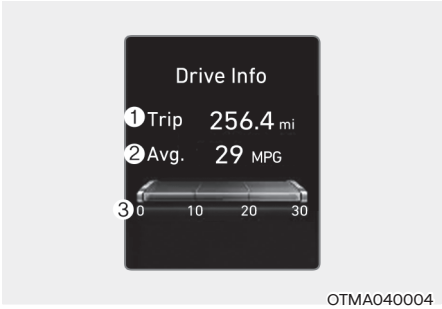
Range

The range is the estimated distance the vehicle can be driven with the remaining fuel in the fuel tank (Gasoline/Petrol) and high-voltage (hybrid) battery (Electric).

If the estimated distance is below 1 mile (1 km), the trip computer will display "---" as the range.

Information

- **If the vehicle is not on level ground or the battery power has been interrupted, the range function may not operate correctly.**
- **The range may differ from the actual driving distance as it is an estimate of the available driving distance.**
- **The trip computer may not register additional fuel if less than 2 gallon (6 liters) of fuel are added to the vehicle.**
- **The range may vary significantly based on driving conditions, driving habits, and condition of the vehicle.**



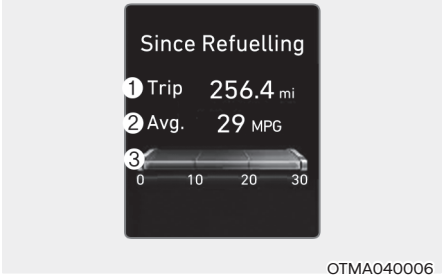
OTMA040004

Drive info

Trip distance (1), average fuel economy (2), and instant fuel economy (3) are displayed.

The information is combined for each ignition cycle. However, when the engine has been OFF for 3 minutes or longer the Drive Info screen will reset.

To reset manually, press the OK switch on the steering wheel for more than 1 second when 'Drive Info' is displayed.

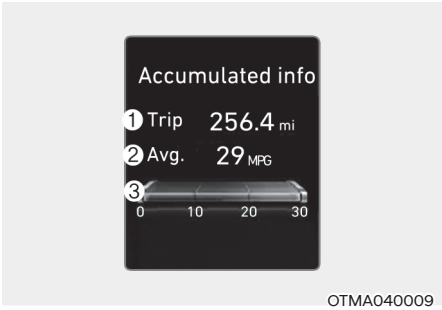


OTMA040006

Since refuel(l)ing

Trip distance (1), average fuel economy (2), and instant fuel economy (3) after the vehicle has been refueled are displayed.

To reset manually, press the OK switch on the steering wheel for more than 1 second when 'Since Refueling' is displayed.



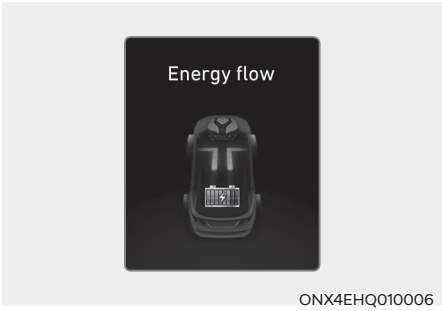
OTMA040009

Accumulated info

Accumulated trip distance (1), average fuel economy (2), and instant fuel economy (3) are displayed.

The information is accumulated starting from the last reset.

To reset manually, press the OK switch on the steering wheel for more than 1 second when 'Accumulated Info' is displayed.



ONX4EHQ010006

Energy flow

The hybrid system informs the drivers its energy flow in various operating modes. While driving, the current energy flow is specified in 11 modes.

For more details, refer to the "Hybrid system" in chapter 1.



OIK047151N

Digital speedometer

Digital speedometer display shows the speed of the vehicle.

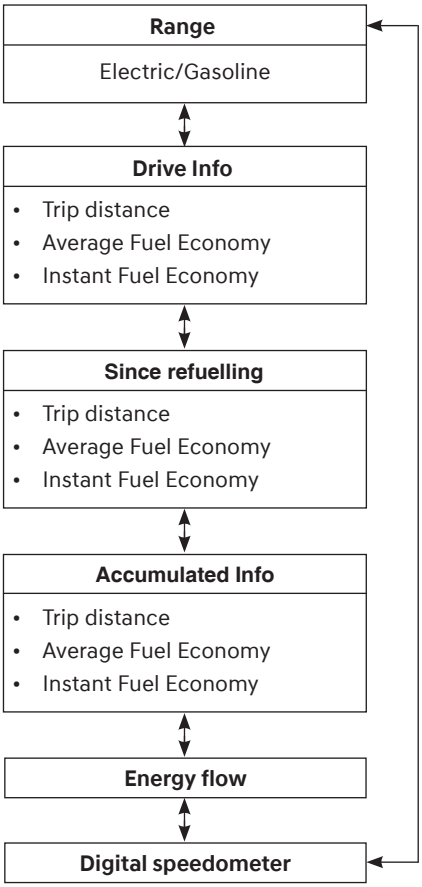
Trip Computer (10.25-inch) - Plug-in Hybrid Vehicle

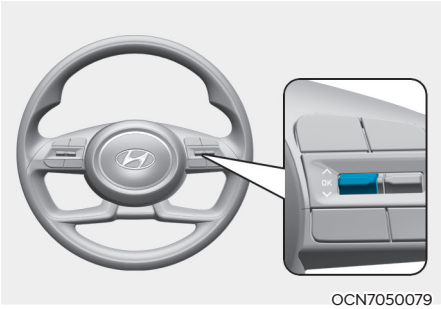
The trip computer is a microcomputer-controlled driver information system that displays information related to driving.

Information

Some driving information stored in the trip computer (for example Average Vehicle Speed) resets if the battery is disconnected.

Trip modes





OCN7050079

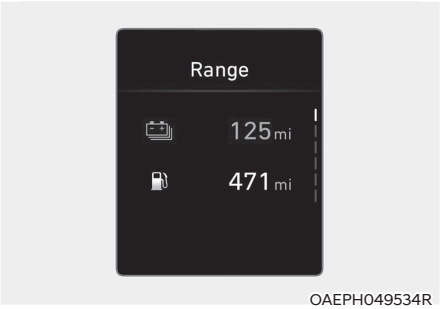
To change the trip mode, toggle the "∧, ∨" switch on the steering wheel

- Manual reset

  To clear the average fuel economy manually, press the OK switch on the steering wheel for more than 1 second when the Average Fuel Economy is displayed.
- Automatic reset

  To automatically reset the average fuel economy, select between 'After Ignition' or 'After Refueling' from the Settings menu in the instrument cluster.
  - After Ignition: When the engine has been OFF for 3 minutes or longer the average fuel economy will reset automatically.
  - After Refueling: The average fuel economy will reset automatically after adding 1.6 gallons (6 liters) of fuel or more and after driving speed exceeds 1 km/h (1 mph).

✳ For 10.25-inch instrument cluster, you can check the fuel economy in the center bottom of the cluster.



OAEPH049534R

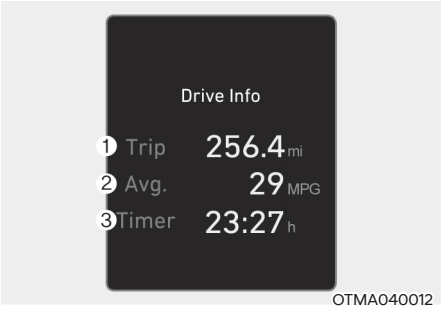
Range

The range is the estimated distance the vehicle can be driven with the remaining fuel in the fuel tank (Gasoline/Petrol) and high-voltage (hybrid) battery (Electric).

If the estimated distance is below 1 mile (1 km), the trip computer will display "---" as the range.

Information

- **If the vehicle is not on level ground or the battery power has been interrupted, the range function may not operate correctly.**
- **The range may differ from the actual driving distance as it is an estimate of the available driving distance.**
- **The trip computer may not register additional fuel if less than 2 gallons (6 liters) of fuel are added to the vehicle.**
- **The range may vary significantly based on driving conditions, driving habits, and condition of the vehicle.**



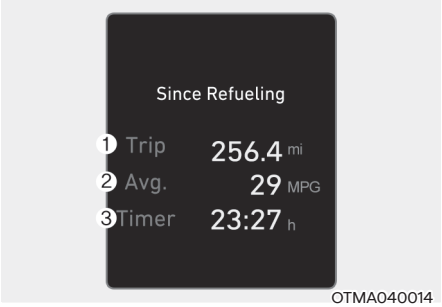
OTMA040012

Drive info

Trip distance (1), average fuel economy (2), and total driving time (3) are displayed.

The information is combined for each ignition cycle. However, when the engine has been OFF for 3 minutes or longer the Drive Info screen will reset.

To reset manually, press the OK switch on the steering wheel for more than 1 second when 'Drive Info' is displayed.

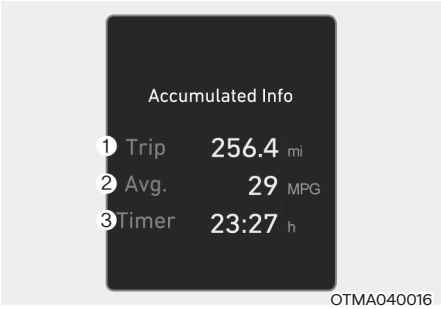


OTMA040014

Since refuel(l)ing

Trip distance (1), average fuel economy (2), and total driving time (3) after the vehicle has been refueled are displayed.

To reset manually, press the OK switch on the steering wheel for more than 1 second when 'Since Refueling' is displayed.



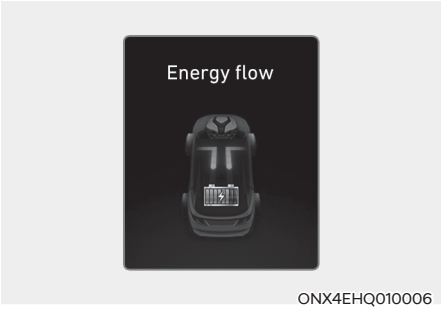
OTMA040016

Accumulated info

Accumulated trip distance (1), average fuel economy (2), and total driving time (3) are displayed.

The information is accumulated starting from the last reset.

To reset manually, press the OK switch on the steering wheel for more than 1 second when 'Accumulated Info' is displayed.

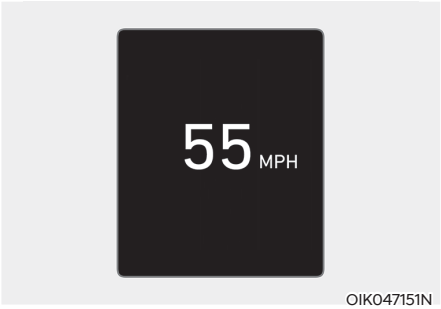


ONX4EHQ010006

Energy flow

The hybrid system informs the drivers its energy flow in various operating modes. While driving, the current energy flow is specified in 11 modes.

For more details, refer to the "Hybrid system" in chapter 1.



OIK047151N

Digital speedometer

Digital speedometer display shows the speed of the vehicle.

VEHICLE SETTINGS (INFOTAINMENT SYSTEM) (IF EQUIPPED)



Vehicle Settings in the infotainment system provides user options for a variety of settings including door lock/ unlock features, convenience features, driver assistance settings, etc.

Vehicle Settings menu

- Driver Assistance
- ECO
- Cluster
- Climate
- Seat
- Lights
- Door
- Convenience

The information provided may differ depending on which functions are applicable to your vehicle.

WARNING

Do not operate the Vehicle Settings while driving. This may cause distraction resulting in an accident.

Setting Your Vehicle



1. Press the SETUP button on the main keyboard.



2. Select ‘Vehicle’ to change the Vehicle Settings.

Information

The infotainment system may change after software updates. For more information, refer to the user's manual provided in the infotainment system and the quick reference guide.

5. Convenience Features

Accessing Your Vehicle 5-4
- Smart Key 5-4
- Immobilizer System 5-11
- Hyundai Digital Key 5-12

Door Locks 5-29
- Operating Door Locks from Outside the Vehicle 5-29
- Operating Door Unlocks from Inside the Vehicle 5-31
- Auto Door Lock/Unlock Features 5-33
- Child-protector Rear Door Locks 5-33

Theft-Alarm System 5-34

Rear Occupant Alert (ROA) 5-35
- System Setting 5-35
- System Operation 5-35
- System Precautions 5-35

Integrated Memory System 5-37
- Storing Memory Positions 5-37
- Recalling Memory Positions 5-38
- Resetting the System 5-38
- Seat Easy Access Operation 5-39

Steering Wheel 5-40
- Motor Driven Power Steering (MDPS) 5-40
- Tilt / Telescopic Steering 5-41
- Heated Steering Wheel 5-41
- Horn 5-42

Mirrors 5-43
- Inside Rearview Mirror 5-43
- Side View Mirrors 5-54

Windows 5-56
- Power Windows 5-57

Panoramic Sunroof 5-61
- Power Sunshade 5-61
- Tilt Open/Close 5-62
- Slide Open/Close 5-62
- Automatic Reversal 5-63
- Resetting the Sunroof 5-64
- Sunroof Open Warning 5-65

Exterior Features 5-66
Hood 5-66
Liftgate 5-67
Power Liftgate 5-69
Smart Liftgate 5-75
Fuel Filler Door (Hybrid vehicle) 5-77
Fuel Filler Door (Plug-in hybrid vehicle) 5-79
Lighting 5-84
Exterior Lights 5-84
High Beam Assist (HBA) 5-88
High Beam Assist Settings 5-88
High Beam Assist Operation 5-89
High Beam Assist Malfunction and Limitations 5-90
Interior Lights 5-91
Interior Lamp AUTO OFF 5-91
Front lamps 5-91
Rear Lamps 5-92
Vanity Mirror Lamp 5-92
Glove Box Lamp 5-93
Luggage Compartment Lamp 5-93
Welcome System 5-94
Wipers and Washers 5-95
Windshield Wipers 5-95
Front Windshield Washers 5-97
Rear Window Wiper and Washer 5-98
Automatic Climate Control System 5-99
Automatic Heating and Air Conditioning 5-100
Manual Heating and Air Conditioning 5-101
Multi Air Mode 5-108
System Operation 5-109
System Maintenance 5-111
Windshield Defrosting and Defogging 5-113
Automatic Climate Control System 5-113
Auto Defogging System on Models with Automatic Temperature Control 5-114
Rear Window Defroster 5-115

5. Convenience Features

Climate Control Additional Features 5-116
A/C Automatic Drying 5-116
Auto Defogging System on Models with Automatic Temperature Control 5-116
Auto Dehumidify 5-117
Recirculating Air when Washer Fluid is Used 5-118
Sunroof Inside Air Recirculation 5-118
Automatic Controls for the Driver Based on Climate Control System Settings 5-118

Storage Compartment 5-119
Center Console Storage 5-119
Glove Box 5-119
Luggage Tray 5-119

Interior Features 5-120
Cup Holder 5-120
Sunvisor 5-121
Power Outlet 5-121
USB Charger 5-122
Wireless Smart Phone Charging System 5-123
Clock 5-126
Coat Hook 5-126
Floor Mat Anchor(s) 5-127
Luggage Net Holder 5-127
Cargo Security Screen 5-128

Exterior Features 5-130
Roof Side Rails 5-130

Infotainment System 5-131
USB Port 5-131
Antenna 5-132
Steering Wheel Remote Controls 5-132
Infotainment System 5-133
Voice Recognition 5-133
Bluetooth® Wireless Technology 5-134

ACCESSING YOUR VEHICLE

Smart Key

■ Type A



OTM050003

■ Type B

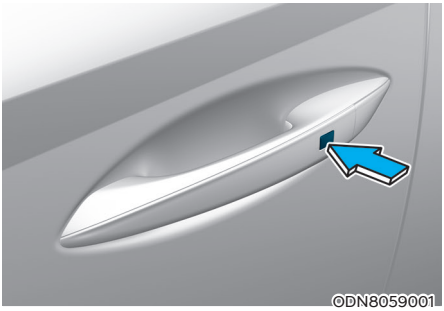


OTM050004

Your HYUNDAI maybe equipped with a smart key, which you can use to lock or unlock the doors and liftgate, and start the engine while just having the key in your possession.

1. Door lock
2. Door unlock
3. Liftgate Unlock (Manual Liftgate)
   Liftgate Open / Close (Power liftgate)
4. Panic
5. Remote Smart Parking Assist (Forward)
6. Remote Smart Parking Assist (Backward)
7. Remote start

Locking your vehicle (Button type)

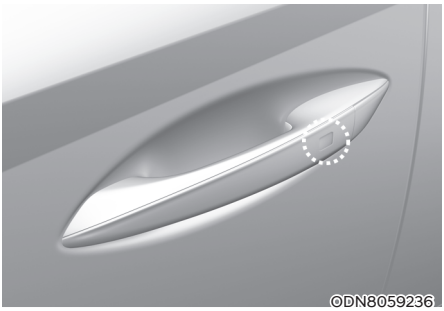


ODN8059001

To lock :

1. Make sure that all doors are closed.
2. Carry the smart key.
3. Either press the door handle button or press the Door Lock button on the smart key.
4. The hazard warning lights will blink.
5. Make sure the doors are locked by pulling on the door handle.

Locking your vehicle (Touch sensor type) (if equipped)



1. Make sure that all doors are closed.
2. While having the Smart Key in your possession, touch the outer part of the door handle on or near the handle detent for about 1 second or until you hear the door locks actuate.
3. The doors will be locked. If the liftgate was open, then when the liftgate is closed it will be locked also.

The chime will sound once and the hazard warning lights will blink.

- The door handle touch sensor will only operate when the smart key is within 28~40 inches (0.7~1 m) from the outside door handle.
- Make sure the doors are locked by pulling the door handle. If you locked the door with the touch sensor on the door handle, the doors cannot be unlocked with the sensor within 3 seconds.

Note that if you press the outside door handle to lock the doors using the touch sensor, the doors will not lock under the following circumstances:

- The Smart Key is in the vehicle
- The Engine Start/Stop button is in the ACC or ON position
- Any of the doors are open (except for the liftgate)

If this occurs, then a chime will sound for about 3 seconds. Check the vehicle before attempting to lock the car again.

CAUTION

Before you leave your vehicle with the Smart Key, verify that your vehicle is locked. When using the touch sensor on the front door handle, listen to hear that the lock has actuated, and then pull the handle within 3 seconds to confirm the doors are locked.

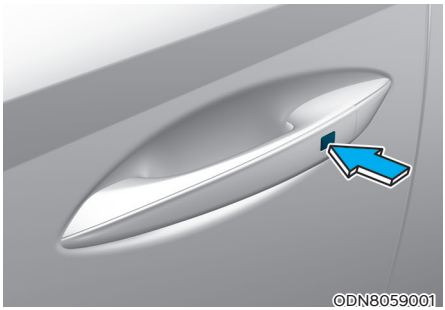
(if it has been longer than 3 seconds, verify the doors are locked by pressing the lock button on the Smart Key. You will hear a single beep.)

WARNING

Do not leave the Smart Key in your vehicle with children that are unattended or unsupervised.

Children could inadvertently press the Engine Start/Stop button or could operate the power windows or other vehicle controls or even cause the vehicle to move. This could result in serious injury or death.

Unlocking your vehicle (Button type door handle)



1. Make sure you have the smart key in your possession.
2. Press the Door Unlock button (2) on your Smart Key, or with the Smart Key in your possession, press the button on the outside door handle of the vehicle.
3. If you unlock the doors using the passenger side door handle, all the doors will unlock. If you unlock the doors using the driver side door handle, either the driver side door will unlock or all the doors will unlock depending on the setting for the Two Press Unlock feature. Refer to User Settings to change the Driver Door unlock mode.

- The door handle button will only operate when the Smart Key is within proper range of the door handle (28-40 inches or approximately 0.7-1m), so be sure to have the Smart Key in your possession and within range.
- Note that if you do not open any of the doors within 30 seconds after unlocking the vehicle, all the doors will relock.

Unlocking your vehicle (Touch sensor type door handle)

1. Make sure you have the smart key in your possession.
2. Press the Door Unlock button (2) on the Smart Key, or simply grab the door handle inside portion to activate the unlock door touch sensor to unlock the door.
3. If you unlock the doors using the passenger side door handle, all the doors will unlock. If you unlock the doors using the driver side doorhandle, either the driver side door will unlock or all the doors will unlock depending on the setting for the Two Press Unlock feature. Refer to User Settings to change the Driver Door unlock mode.
4. When the doors unlock, the hazard warning lights will blink two times and the chime will sound.

- The door handle button will only operate when the Smart Key is within proper range of the door handle (28-40 inches or approximately 0.7-1m), so be sure to have the Smart Key in your possession and within range.
- Note that if you do not open any of the doors within 30 seconds after unlocking the vehicle, all the doors will relock.
- If you unlocked the door with the touch sensor door handle, note that the doors cannot be relocked with the touch sensor on the outside handle for about 2 seconds.

Two Press Unlock Feature

The option for unlocking the driver door only, or unlocking all the doors with one press may be adjusted in the User Settings mode in the cluster display.

The Two Press Unlock feature, when enabled, will require the user to press the door unlock button once for driver door only and twice for unlocking all the doors.

Select or Deselect the Two Press Unlock feature in the User Settings mode in the cluster display. The option can be found under the following menu:

User Settings → Door → Two Press Unlock

The Two Press Unlock feature can also be enabled or disabled by pressing the door lock and unlock buttons simultaneously on the Key FOB:

Press and hold both the Door Lock button and the Door Unlock button simultaneously until the hazard warning lights blink.

This will enable or disable the Two Press Unlock feature. Repeat this procedure to enable/disable the mode again.

Information

If you press the front passenger outside door handle with the smart key in your possession, all the doors will unlock.

Opening or Unlocking the Liftgate

To open the liftgate:

1. If your vehicle has a Smart Key, make sure you have the Smart Key in your possession.
2. Press either the liftgate open/close button on the vehicle or press and hold the liftgate open button on the smart key for more than one second. The hazard warning lights will blink twice and the liftgate will be unlocked. If your vehicle is equipped with a manual liftgate, pull up on the liftgate to open. If your vehicle is equipped with a power liftgate then the liftgate will automatically open.

Closing the Power Liftgate

If your vehicle is equipped with Power Liftgate, press and hold continuously either the open/close button on the vehicle or the liftgate button on the Smart Key. The hazard warning lights will blink twice and the liftgate will close. Continue to hold the button until the liftgate is completely closed.

Remote Start Using Your Smart Key (if equipped)

You can start the vehicle using the Remote Start button on the smart key.

To start the vehicle remotely:

1. All the doors must be closed and locked in order to use the remote start feature. Press the door lock button on the Smart Key. You must be within about 32 feet (10m) from your vehicle.
2. Press and hold the remote start button on your Smart Key. You must press the button within 4 seconds from when you pressed the door lock button to activate the remote start.
3. The hazard warning lights will blink and the engine will start.
4. To turn off the remote start function, press the Remote Start button once.

Information

Note the following:

- **The vehicle must be in P (Park) to enable the remote start feature**
- **All the doors must be closed and locked to enable the remote start feature. The vehicle will not start if the engine hood or liftgate are open.**
- **Before pressing the Remote Start button on the Smart Key make sure you are within 32 feet (10m) of your vehicle**
- **After the engine has started, the engine will turn off if you enter the vehicle without having the Smart Key in your possession**
- **The engine will turn off after 10 minutes if you do not enter the vehicle**
- **Do not idle the engine in an enclosed area like a garage and do not let the engine idle for a long period of time**

Remote Smart Parking Assist Feature (if equipped)

Some models are equipped with Remote Smart Parking Assist Feature. With the Smart Key, the vehicle can be moved forward or backward remotely to enter or exit a tight parking space.

For more details, refer to "Remote Smart Parking Assist (RSPA)" section in chapter 7.

Panic alarm

A panic alarm feature is available on the remote key. When this button is pressed for about 1 second, the horn will sound and the hazard lights will blink for about 30 seconds. To stop the horn and lights, press any button on the remote key.

Push Button Start/Stop (if equipped)

Some models are equipped with a push button start instead of a key cylinder. You can leave your Smart Key in your pocket or purse when you start your vehicle.

For more details, refer to the "Engine Start/Stop Button" section in chapter 6.

Information

If the smart key is not moved for some time, the detection function for smart key operation will pause. Lift the smart key to activate the detection again.

NOTICE

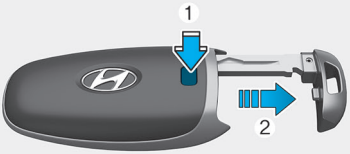
To prevent damaging the smart key:

- **Keep the smart key in a cool, dry place to avoid damage or malfunction. Exposure to moisture or high temperature may cause the internal circuit of the smart key to malfunction which may not be covered under warranty.**
- **Avoid dropping or throwing the smart key.**
- **Protect the smart key from extreme temperatures.**

Mechanical key

If the Smart Key does not operate normally, you can lock or unlock the driver's door by using the mechanical key.

To remove the mechanical key from the smart key:



OFE048007

Press and hold the release button (1) and remove the mechanical key (2). Insert the mechanical key into the key hole on the door.

Key Cylinder (Driver Door)

A key cylinder is located on the driver side door handle hidden behind a plastic cover. Using the mechanical key, push and hold the key cylinder cover release button located on the underside of the door handle.

Use the mechanical key inserted into the release button slot to pry the cover outward. Once the cover is off, the mechanical key can be inserted into the key cylinder to lock or unlock the vehicle.

To reinstall the mechanical key into the key FOB, put the key into the key FOB hole and push inward until a click sound is heard.

Loss of a smart key

A maximum of two smart keys can be registered to a single vehicle. If you happen to lose your smart key, it is recommended that you immediately take the vehicle and remaining key to your authorized HYUNDAI dealer or tow the vehicle, if necessary.

Smart key precautions

The smart key may not work if any of the following occur:

- The smart key is close to a radio transmitter such as a radio station or an airport which can interfere with normal operation of the transmitter.
- The smart key is near a mobile two way radio system or a mobile phone.
- Another vehicle's smart key is being operated close to your vehicle.
- The vehicle battery is discharged.
- If your windows are tinted, especially with metallic window tint, it may cause frequency interference, reducing the smart key operating range.

If the smart key does not work correctly, open and close the door with the mechanical key. If you have a problem with the smart key, it is recommended to contact an authorized HYUNDAI dealer.

If the smart key is in close proximity to your mobile phone, the signal could be blocked by your mobile phone's normal operational signals. This is specifically relevant when the phone is active such as making and receiving calls, text messaging, and/or sending/receiving emails. When possible, avoid keeping the smart key and your mobile phone in the same location such as pants or jacket pocket in order to avoid interference between the two devices.

Information

This device complies with Part 15 of the FCC rules.

Operation is subject to the following three conditions:

1. **This device may not cause harmful interference.**
2. **This device must accept any interference received, including interference that may cause undesired operation.**
3. **Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.**

NOTICE

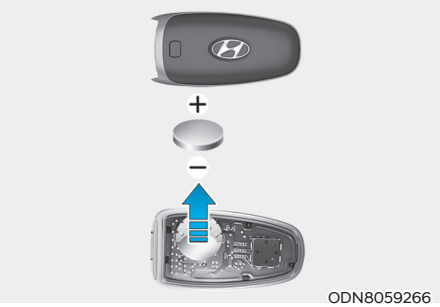
- **Keep the smart key away from electromagnetic materials that blocks electromagnetic waves to the key surface.**
- **Always keep the smart key with you when you leave your vehicle. If the smart key is left near or inside the vehicle, the vehicle's 12V battery may be discharged.**
- **For example, if you park your vehicle in a garage and leave it unlocked, take the smart key out of the vehicle to prevent the vehicle's battery from being discharged**

Battery replacement

If the Smart Key is not working properly, try replacing the battery with a new one.

Battery Type: CR2032

To replace the battery:



Battery Type: CR2032

To replace the battery:

1. Remove the mechanical key.
2. Use a slim tool or utility blade to pry open the cover of the smart key. Use caution not to damage the smart key.
3. Remove the old battery and insert a new battery. Make sure the battery position is correct. An improperly positioned battery may discharge the battery, causing smart key failure.
4. Reinstall the rear cover of the smart key.

If you suspect your smart key might have sustained some damage, or you feel your smart key is not working correctly, it is recommended that you contact an authorized HYUNDAI dealer.

WARNING

THIS PRODUCT CONTAINS A BUTTON BATTERY.

If swallowed, a lithium button battery can cause severe or fatal injuries within 2 hours. Keep batteries out of reach of children.

If you think batteries may have been swallowed or placed inside any part of the body, seek immediate medical attention.

Information



An inappropriately disposed battery can be harmful to the environment and human health. Dispose of the battery according to your local law(s) or regulations.

Immobilizer System (if equipped)

The immobilizer system helps protect your vehicle from theft. If an improperly coded key (or other device) is used, the engine's fuel system is disabled.

When the Engine Start/Stop button is pressed to the ON position, the immobilizer system indicator should come on briefly, then go off. If the indicator starts to blink, the system does not recognize the coding of the key.

Place the Engine Start/Stop button to the OFF position, then place the ignition switch to the ON position again.

The system may not recognize your key's coding if another immobilizer key or other metal object (for example, key chain) is near the key. The engine may not start because the metal may interrupt the transponder signal from transmitting normally.

If the system repeatedly does not recognize the coding of the key, it is recommended that you contact your HYUNDAI dealer.

Do not attempt to alter this system or add other devices to it. Electrical problems could result that may make your vehicle inoperable.

WARNING

In order to prevent theft of your vehicle, do not leave spare keys anywhere in your vehicle. Your immobilizer password is a customer unique password and should be kept confidential.

NOTICE

The transponder in your key is an important part of the immobilizer system. It is designed to give years of trouble-free service, however you should avoid exposure to moisture, static electricity and rough handling. Immobilizer system malfunction could occur.

Information

This device complies with Part 15 of the FCC rules.

Operation is subject to the following three conditions:

1. **This device may not cause harmful interference.**
2. **This device must accept any interference received, including interference that may cause undesired operation.**
3. **Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.**

Hyundai Digital Key (if equipped)

Digital Key Application

To use Hyundai Digital Key mobile app, you should install the Hyundai Digital Key app on your Android phone. Search 'Hyundai digital key' in the Google Play Store and download the app. Please refer to the detailed manual of the digital key app. The option can be found under the following app menu:

Menu → Application Info → Tutorial

Please review the contents of the manual before using the app.

✳ This service is only available for Android smartphones. Please confirm supported/compatible devices on our website.

WARNING

Delete Digital Key Settings When Purchasing a Used Vehicle

If any of the digital key (smartphone key or card key) is already registered when you press ON button after unlocking the doors, the message 'Digital key(s) active' appears on the instrument cluster once. If you sell your vehicle or purchase a used Hyundai vehicle equipped with the Digital Key feature, you should confirm the message and delete the registered smartphone key and card key. For more information, please contact the Hyundai Customer Care Center.

If the card key does not work properly, please delete the card key and register the smartphone key and re-register the card key.

For vehicle maintenance

If you need to have your Digital Key System repaired or replaced, please ensure your Smartphone Key is still active. You may have to pair your phone again.

In some instances you may have to re-initialize your Digital Keys using the Hyundai Digital Key mobile app.

Digital key (smartphone) NFC function

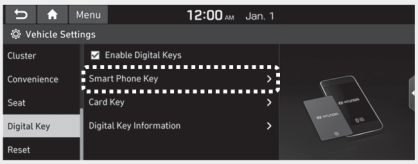
In order to use the Digital Key feature on your Android smartphone, you must first enable the NFC (Near Field Communication) setting on your phone.

To enable NFC, go to Settings on your smart phone.

In addition, your smart phone screen should be unlocked when using the Digital Key feature.

✳ To enable the user settings for NFC on your smart phone, go to the Settings app on your phone. For further assistance, refer to your smart phone manual.

Digital key (smartphone)



ODN8A059129



ODN8A059240

Hyundai Digital Key (Smartphone) Pairing

1. Turn the vehicle on with the Smart keyand make sure to keep the smart keyinside the vehicle during digital keyregistration.
2. Select the vehicle to save on yourDigital key application and activatethe save mode.

✳ Save mode is available only onthe vehicle owner's Digital keyapplication.

3. Place the backside of smartphoneonto the wireless charging pad(in-vehicle authentication pad).The saving process will beginautomatically

Information

The [Save] button will be disabled if the digital key (Smartphone key) is already saved.

Please refer to “Digital Key Delete” in this manual and follow the digital key delete procedure in your car before Digital key save.

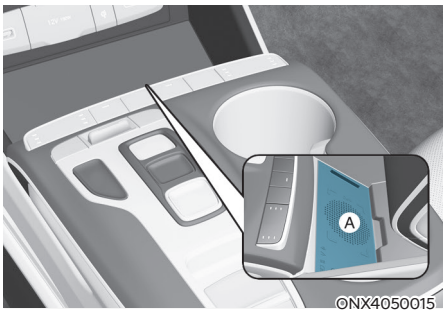
Please refer to the ‘Tutorial’ on your Digital key app and delete the previous saved key in your smartphone before save.

4. Register your Digital key from thevehicle user setting menu as follows.

✳ With Navigation screen :From the infotainment screen menu,go to [Setup] - [Vehicle] - [Digital Key]- [Smart Phone Key] then select the[Save] from submenu.

✳ Without navigation screen :From cluster menu, go to [Digital Key]- [Smart Phone Key] and select [Save].

5. Once the digital key save is complete,a message will be shown on theinfotainment screen or cluster.
6. Remove the smartphone from the padand complete the saving process.



[A] : Wireless Charging Pad (In-vehicle Authentication Pad)



ODN8A059129



ODN8A059130

Hyundai Digital Key (Smartphone Key) Deletion

1. Turn the vehicle on with the Smart key and make sure to keep the smart key inside the vehicle during delete process.
2. Delete your Digital key from the vehicle user setting menu as follows.

✳ With Navigation screen : From the infotainment screen menu, go to [Setup] - [Vehicle] - [Digital Key] - [Smart Phone Key] then select the [Delete] from submenu.

✳ Without navigation screen : From cluster menu, go to [Digital Key] - [Smart Phone Key] and select [Delete].

Information

The [Delete] button will be disabled if there is no digital key (Smartphone key) saved.

3. Once the digital key delete is complete, a message will be shown on the infotainment screen or cluster.
4. Go to [Initialize Digital Key] menu on the digital key application and select the vehicle to delete the digital key information.

- Open the Hyundai Digital Key app → Menu → Initialize Digital Key

✳ If the saved digital key information in your car is deleted due to vehicle maintenance, the digital key in your smartphone should be deleted as well.

✳ For more information, please refer to the 'Tutorial' on your Digital key app.

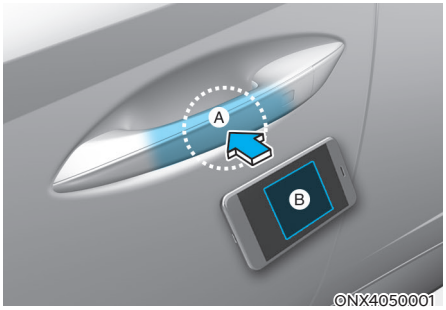
CAUTION

- **If the smartphone is removed from the interior authentication pad during enrollment, the saving process will be cancelled.**
- **If the infotainment or instrument cluster screen is changed during enrollment, the saving process will be cancelled.**
- **If the vehicle is turned off during enrollment, the saving process will be cancelled.**
- **If the gear is shifted, the saving process will be cancelled.**
- **If you try to save the smartphone which is not logged in with the vehicle owner's ID or if you try to save the Card key, the saving process will not begin.**
- **If the NFC setting on your smartphone is off, the saving process will not begin.**
- **If the smartphone screen is changed to off or locked status, the saving process will be cancelled.**
- **If there is no Smart key during the save process, the saving process will not begin.**

Set up main vehicle

You can manage multiple digital keys from the Digital key app. From the list of digital keys you own, select the vehicle you want to make your priority vehicle.

For more information, please refer to the 'Tutorial' on your Digital key app.



[A] : Door handle authentication pad,
[B] : NFC Antenna

NFC door lock/unlock

To unlock your vehicle using the smartphone Digital Key, position your phone near the door handle NFC touch sensor of either the driver side or passenger side door. Hold your phone near the touch sensor area for about 2 seconds. You will hear the doors lock or unlock.

If you unlock your vehicle from the passenger side door handle, then all the doors will unlock. If you unlock your vehicle from the driver side door handle, then either the driver door only or all the doors will unlock depending on the setting of the Two Press Unlock feature. Refer to User Settings to change the Driver Door unlock mode.

To lock your vehicle using the smartphone Digital Key, position your phone near the door handle NFC touch sensor of either the driver side or passenger side door.

Before you leave your vehicle, verify that your vehicle is locked. When using your smartphone Digital Key on the front door handle, listen to hear that the door lock has actuated, and then pull the handle within 3 seconds to confirm the doors are locked.

Note that you will not be able to lock your vehicle using your smartphone Digital Key under the following circumstances:

- The Proximity / Smart Key is in the vehicle.
- The Engine Start/Stop button is in ACC or ON position.
- Any of the doors, hood and trunk is opened.
- The vehicle battery is discharged

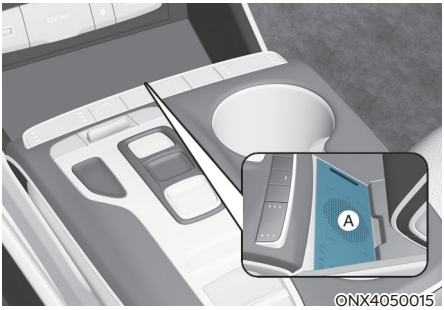
If the smartphone Digital Key does not work properly, try again by removing the smartphone away from the door handle (more than 4 inches) and try it again.

Note that when the doors have been unlocked using the smartphone Digital Key, the Lock/Unlock switch on the driver door may not be immediately available.

(If you attempt to lock the doors using the driver door lock switch, the doors will lock and then immediately unlock when you close the door.)

Start-up with Digital Key

1. After placing your registered smartphone onto the authentication pad (same location as the wireless charging pad), step on the brake and press the Engine Start/Stop button.
2. After the engine has started, you can remove your smartphone from the authentication pad. If you would like to charge your phone using the wireless charger, leave your phone on the pad. Wireless charging should begin automatically after about 5 to 20 seconds. Note that all the doors must be closed before to enable the wireless charging feature.



[A] : Wireless Charging Pad (In-vehicle Authentication Pad)

Information

After reconnecting the vehicle battery power supply or charging the battery, it may take time to operate due to remote renewal of security information. In this case, when you lock or unlock the doors using your smartphone Digital Key, it may take a little longer for the vehicle to authenticate. Hold your smartphone near the NFC door handle sensor for a few seconds or until you hear the door locks actuate.

Note that if your vehicle is parked in an area where cell coverage is weak, the smartphone Digital Key can still be used on for a limited number of times to unlock and start your vehicle.

After starting your vehicle, it is recommended to leave your smartphone on the wireless charging pad until cell phone service is stronger and digital key authentication can occur.

Once authentication is complete, the wireless charger will turn on (wireless charging LED will illuminate).

CAUTION

The engine can be turned on if the registered smartphone or card key is placed on the interior authentication pad (wireless charger). Do not leave children unattended in the vehicle when using the smartphone Digital Key. Serious injury or death can occur.

Do not leave anyone in the vehicle without knowledge of the Digital Key system when using the smartphone Digital Key. Always have the registered digital key (smartphone) or card key with you to prevent vehicle theft when leaving the vehicle.

For more information, refer to the Engine Start/Stop button in chapter 6.

Remote Features from Your Smartphone with the Digital Key App

To use the remote features from your smartphone with the Digital Key app, make sure Bluetooth is enabled.

Connecting Your Vehicle with Digital Key

1. Open the Hyundai Digital Key app on your smartphone and select your vehicle within the app.
2. Approach your vehicle with your smartphone in hand. Be sure that your phone is unlocked and the app is running. If your vehicle does not automatically connect, you can press the connect button on the app. Remote features on the Digital Key app will be available as soon as your vehicle is connected.

Remote Features Using Digital Key

You can perform several vehicle functions using the Digital Key app, including door lock/unlock, panic ON/OFF, remote engine start/stop and opening the liftgate. The icon for each function is shown in the Digital Key app, and will be highlighted when the operation is performed. Haptic feedback from your phone will occur when the icon is selected.

Note that you cannot lock your vehicle using the Hyundai digital key app if any of the following occurs:

- The Engine Start/Stop button is in ACC or ON position.
- Any doors are open.

When the smartphone and vehicle is connected by Bluetooth, the Door Lock/Unlock, Remote Start, Panic and Liftgate/Frunk open functions are available using the App provided by the smartphone manufacturer.

CAUTION

- **If metallic window tint was applied to your vehicle, it may cause bad Bluetooth connection or performance degradation of the digital key.**
- **If multiple users operate the remote control function simultaneously, the connection between the digital key and the vehicle might result in failed commands. Please connect and operate the remote control function only the necessary user.**
- **When using the remote control operation, the driver (the remote control user) should leave the vehicle after confirming the door lock (the chime sounds once and the hazard warning lights blink).**
- **The remote functions of the Digital Key app enables the vehicle to be controlled from a set distance. If the digital key or the vehicle goes beyond the operable distance, the remote control function might be disconnected or cancelled.**
- **If the digital key (smartphone) is connected with the vehicle for the remote control, the driver with the key goes far away from the vehicle, the function might not work.**
- **If the remote control operation is executed where the mobile connection is weak, Bluetooth connection is poor due to several Bluetooth devices or there is an object such as metal or concrete, it might be delayed or the operable distance might decrease. You should not cover the smartphone with your hand or place other devices which can cause frequency interference. It may result in poor performance.**
- **If the remote control function is not available, please use NFC function to lock or unlock the doors.**

Remote Start with Digital Key

- Using the Hyundai Digital Key app on your phone, press the Door Lock button and then press the Remote Start button (buttons must be pressed within about 4 seconds). If all the doors of your vehicle are closed (including the hood and the liftgate), the engine will be automatically started.
  Note that when the remote start feature is activated, the hazard warning lights will blink two times and a chime will sound before engine startup. Also note the following:
- The climate control system will come on using the same settings from when you last used the vehicle
- To turn off the engine, press the Remote Engine Stop button within the Hyundai Digital Key app.
- The engine will remain running for approximately 10 minutes, and then engine will automatically shut OFF.
- To keep the engine running, access the vehicle and place the smartphone on the wireless charging pad (authentication pad) while the engine is still in remote engine-ON mode.

For more information, refer to the Engine Start/Stop button in chapter 6.

Vehicle information Display

The digital key application displays the vehicle information such as driving or door conditions through the communication with the vehicle.

- How to check : Select the vehicle what you want to check and touch the vehicle image, then vehicle information display page will be shown.
- Contents : accumulated odometer, latest fuel economy, driving range, fuel remaining, tire pressure, doors lock/unlock status and last data updated time.

✳ Note that displayed vehicle data may be slightly different from the current vehicle condition

✳ **For more information, please refer to the 'Tutorial' on your Digital key app.**

Getting a New Smartphone / Changing Your Smartphone / App Deletion

If you change your smartphone or delete the Hyundai Digital Key App, please refer to the following to set up your Digital Key:

Using Digital Key on a New Smartphone

If you change to a new smartphone, the registered digital key app on your previous smartphone may not be used. Refer to the following procedure to set up digital key on your new phone.

1. Install the digital key application and log in.
2. If you are the owner, retry the Digital key save process.
3. If you are using a shared digital key, you will need to obtain a new shared digital key from the owner.

App delete & reinstall/ Delete App data

You can re-download the digital key from server in these cases as follow procedure.

1. Reinstall the application and log in.
2. Input the PIN number for user verification.
3. If PIN is correct, digital key data will be re-downloaded to your smartphone and you can use it without any further registration or sharing.

Smartphone operability with Digital Key

The digital key application may not be available to old type smartphones. Please check the available smartphone models with your dealer. NFC antenna position on the smartphone can be confirmed on each smartphone's manual or contact to customer service center of the smartphone manufacture.

CAUTION

- **Do not leave the registered digital key (smartphone) and card key in your vehicle. Please carry around your keys all the times.**
- **If you happen to lose your digital key (smartphone) or card key registered as a main user's key, you should immediately delete the key on the vehicle's key menu. For more information, refer to the Digital Key Deletion in this chapter.**
- **If you registered your digital key (smartphone) or card key in the vehicle, a message appears on the instrument cluster and let you know the key is registered. (Message: Digital key(s) active.)**
- **If you buy a used vehicle, you should confirm the message and delete the registered smartphone key and card key. In this case, you should carry your smart key.**
- **If you keep place the NFC card of the digital key on the interior authentication pad (wireless charger) while driving, it may cause a malfunction of the NFC card.**
- **You should remove your NFC card of the digital key on the interior authentication pad after turning on the engine.**
- **Hyundai digital key app may not work properly when the NFC or Bluetooth communication between smartphone and car is not good.**
- **If the remote control operation is executed where the mobile connection is weak, Bluetooth connection is poor due to lots of Bluetooth devices or there is an object such as metal or concrete, it might be delayed or the operable distance might decrease. Especially, you should not cover the smartphone with your hand or place other devices which can cause frequency interference. It may result in poor performance.**
- **If the remote control function is not activated, please use NFC function to lock or unlock the doors**
- **You should be careful not to press the remote control button on the digital key (smartphone) accidentally.**
- **If the digital key (smartphone) is discharged or defective or you cannot use the digital key since the vehicle battery is discharged, use the inside door lock button to lock all of the doors.**

CAUTION

- Hyundai digital key app on the smartphone and card key may not work if any of the following occurs:
  - Hyundai digital key app on the smartphone is deleted. (Required to reinstall the app)
  - Account log in information of Hyundai digital key app is expired. (Required to re-log in)
  - When you try to log in to another smartphone instead of the registered smartphone with same user account.
  - Smartphone rooting or app hacking is detected.
  - Smartphone battery or the vehicle battery is discharged.
  - Smartphone's screen is off or locked.
  - NFC or Bluetooth is turned off on the smartphone settings.
  - Smartphone's mobile network setting is off or airplane mode is activated.
  - A credit card is overlapped in the back of your smartphone or metal or thick case is used.
  - Use the card key with insert it into the wallet or card holder or overlapping with other cards.
  - If you use a smart phone cover that uses wireless communication or is made of metal, the digital key NFC function may not work properly. Remove the smart phone cover before using the digital key NFC function.
- The vehicle may not be controlled by the smartphone if any of the following occurs:
  - Basic and necessary functions of the smartphone manufacturer are operating. (General call, urgent call, audio or NFC payment)
  - Wireless earphone is operating. (General call, urgent call or audio)
  - The digital key app function such as basic setting or app launching is limited by prior policy according to the manufacturer while using a smartphone produced by domestic and foreign manufactures.

✳ If you change the smartphone number, you should modify the user account information on the HYUNDAI customer web site to use the digital key app.

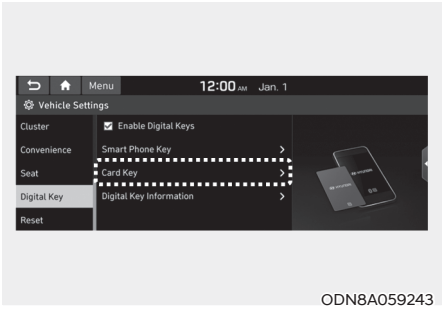
✳ If the vehicle owner changes the smartphone device, the new smartphone should be registered in the car after deleting the registered digital key(smartphone).

✳ If a sharer changes or reset the smartphone, the key should be re-shared from owner.

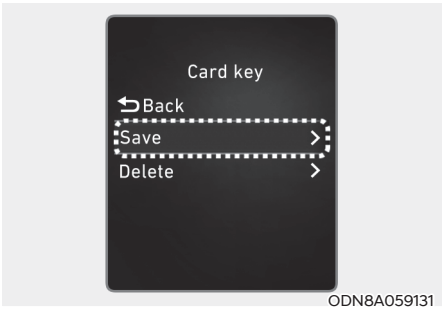
✳ Some of the old smartphone may not work properly. Please check the available smartphone models with your dealer.

✳ NFC antenna position on the smartphone can be confirmed on each smartphone's manual or contact to customer service center of the smartphone manufacture.

Digital Key Card Key (Optional feature)



ODN8A059243



ODN8A059131

Digital key (Card key) save

1. Install Hyundai digital key app inmain user's smartphone and registerthe digital key (smartphone). Pleaserefer to the registration method of thedigital key (smartphone).
2. Using the [Pair Card Key] menu onthe digital key application, you canactivate the Card Key registrationmode.

✳ NFC authentication : enter the NFC authentication menu and contact the smartphone on the outside door handle.

✳ Bluetooth authentication : enter the Bluetooth authentication menu and press the [OK] button for activation.

If you activate the registration mode, you should complete the Card saving process within 5 minutes.

✳ If you have not registered the digital key (smartphone), please register the digital key (card key) with two smart keys.

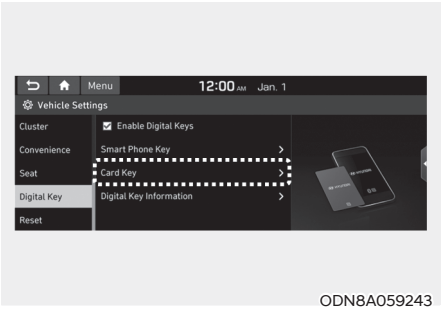
3. Place the NFC card key onto theinterior authentication pad (wirelesscharger). The saving process willbegin automatically.
4. Register the NFC card key on theUser's Settings menu after turning onthe vehicle.

✳ With Navigation screen : From theinfotainment screen menu, go to[Setup] - [Vehicle] - [Digital Key] -[Card Key] then select the [Save] fromsubmenu.

✳ Without navigation screen : Fromcluster menu, go to [Digital Key] -[Card Key] and select [Save].The [Save] button will be disabled ifthe digital key (Card key) is alreadysaved. Please refer to "Digital Key Delete" inthis manual and follow the digital keydelete procedure in your car beforeDigital key save.

5. If the key is enrolled, the messagewill be displayed on the infotainmentscreen or instrument cluster.

- Once the card key registration mode is activated, the process should be completed within 5 minutes. After then, you should reactivate once again for registration.
- For the digital key(card key) saving, the smart key(fob) must be exist inside of vehicle.
- Once a Card key is registered, it cannot be reuse onto another vehicle.



ODN8A059243



ODN8A059132

Digital key (Card key) deletion

Note that the remote Smart Key must be in your possession and inside the vehicle in order to delete the Digital Key Card.

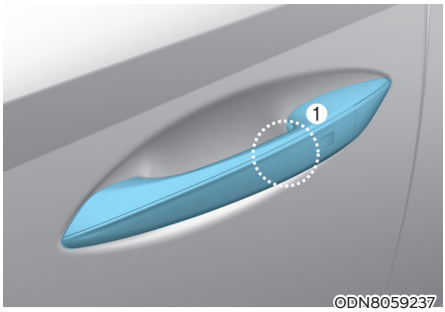
1. Access the vehicle using the Smart Key.
2. Start the vehicle and then access the Digital Key Card Key functions in the User Settings menu in either the cluster display or from the Navigation infotainment screen (on some models.)

✳ With Navigation screen : From the infotainment screen menu, go to [Setup] - [Vehicle] - [Digital Key] - [Card Key] then select the [Delete] from submenu.

✳ Without navigation screen : From cluster menu, go to [Digital Key] - [Card Key] and select [Delete].

If there is no saved digital key(card key), [Delete] menu will not be activated.

- To delete the saved digital key card, you must have the Smart Key in your possession and be inside the vehicle
- Note that if the digital key card is deleted, it can be re-registered to the same vehicle as long as a new card has not already been registered
- If you try to register a new digital key card, the previously registered card will no longer be active and cannote be re-registered



[1] : Door handle authentication pad

NFC door lock/unlock

To unlock your vehicle using the NFC card key, touch the card key near the door handle NFC touch sensor of either the driver side or passenger side door. Hold the card key near the touch sensor area for about 2 seconds. You will hear the doors lock or unlock.

If you unlock your vehicle from the passenger side door handle, then all the doors will unlock. If you unlock your vehicle from the driver side door handle, then either the driver door only or all the doors will unlock depending on the setting of the Two Press Unlock feature. Refer to User Settings to change the Driver Door unlock mode.

To lock your vehicle using the NFC card key, touch the card key near the door handle NFC touch sensor of either the driver side or passenger side door.

Before you leave your vehicle, verify that your vehicle is locked. When using your NFC card key on the front door handle, listen to hear that the door lock has actuated, and then pull the handle within 3 seconds to confirm the doors are locked.

Inoperable condition

When using the NFC card key to lock or unlock your vehicle, be sure to touch the card key near the center of the door handle to enable the sensor to activate.

Note that you must take the card out of your wallet or purse to use the card key correctly. If the card key is not touching the door handle sensor or is in close proximity to other NFC-enabled cards, it may not work.

Note that if you attempt to use the NFC card key to lock the doors, the doors will not lock under the following circumstances:

- The Smart Key is in the vehicle
- The Engine Start/Stop button is in the ACC or ON position
- Any of the doors are open (except for the liftgate)

If this occurs, then a chime will sound for about 3 seconds. Check the vehicle before attempting to lock the car again.

If you have difficulty locking or unlocking the vehicle using the NFC card key, remove the card key away from the door handle sensor for a few seconds (card key must be more than 4 inches away) and then retry.

If the card key is damaged or bent, the sensor on the door handle may not properly detect the card key. If this occurs contact your authorized Hyundai dealer for a card key replacement.

Be careful not to damage the card key or expose the card key to extreme temperatures or direct sunlight for long periods of time.

Note that when the doors have been unlocked using the NFC digital card key, the Lock/Unlock switch on the driver door may not be immediately available.

(If you attempt to lock the doors using the driver door lock switch, the doors will lock and then immediately unlock when you close the door.)

Start-up with Card key

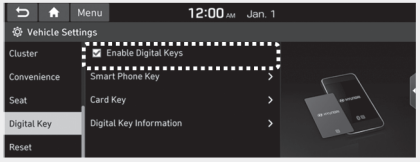
After placing your registered card key onto the interior authentication pad (wireless charger), step on the brake and press the Engine Start/Stop button.

WARNING

- **If you do not place the digital key (card key) onto the center of the interior authentication pad (wireless charger) exactly, the card key may not be recognized. If the engine is not turned on, adjust and place the key again.**
- **If you overlap and use the key with NFC-enabled cards such as transportation card or credit card, the card key may not be recognized.**
- **If the digital key (card key) does not work, please detach the key around 4 inches (0.1 m) from the handle authentication pad and retry to contact.**
- **The card key may be damaged due to impact. It would not work properly if the key is damaged. You should buy a new card and register again.**

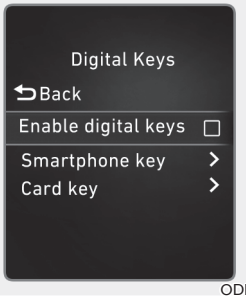
For more information, refer to the Engine Start/Stop button in chapter 6.

■ Type A



ODN8A059133

■ Type B



ODN8A059247

Enabling or Disabling the Digital Key Feature

Enabling or Disabling the Digital Key Feature If you want to temporarily disable the digital key feature (smarphone app and NFC card key), you can do so in the user settings menu.

✳ With Navigation screen :
From the infotainment screen menu, go to [Setup] - [Vehicle] - [Digital Key] - [Enable Digital Keys] (deselect)

✳ Without navigation screen :
From cluster menu, go to [Digital Key] - [Enable Digital Keys] (deselect)

Information

In order to disable the digital key feature in the user settings menu, you must have the smart key in your possession inside the car.

CAUTION

If you uncheck Enable digital keys, it is impossible to lock or unlock the doors or start up the vehicle with digital keys such as smartphone and card key. If you check Enable digital keys again, the registered digital keys(smartphone and card key) are available. Even though you stop the digital key function, the registered keys (smartphone and card key) are not deleted.

Personalized profile and vehicle settings

You have the ability to set the registered digital key with one of two personalized profiles. Then, when you use the digital card key or the Digital Key App, the vehicle will be set to the user-defined personalized profile (which includes such items as driver settings, audio preferences, etc.).

There are two profile connections and personalization settings available for Driver 1 and Driver 2.

Connecting a Profile to Your Digital Key App

Linking a Profile

1. Select Setup → User Profile → Profile Settings → Link Digital Key on the infotainment screen menu.
2. Make sure your smartphone is unlocked. Place your smartphone on the wireless charger authentication pad. Once your smartphone is detected the profile link process will be enabled.
3. A pop-up message will be displayed on the screen requesting if you would like to link the user profile to your Digital Key smartphone.
4. If you select Link, the digital key smartphone and the user profile will be linked.
5. A message will be displayed confirming the link process.

Unlinking Your Profile

1. Select Digital Key Information from the Vehicle Settings menu on the infotainment screen. If a profile is linked, you'll see an option to unlink your profile.

Information

If you connect both Driver 1 and Driver 2 with a single smartphone, the smartphone digital key always works as Driver 1.

If you unlink the Driver 1, personalization function will operate as Driver 2.

Linking Profiles - Some Tips

When you link or unlink a profile to your digital key, note the following:

- Linking a profile with your digital key must be enabled in the user settings menu
- The profile link information remains even if you disable the digital key feature in the user settings menu
- The profile link feature works only when the smartphone and the digital key app are already registered to the vehicle
- While performing the user profile link process to your smartphone digital key, if you remove the smartphone from the authentication pad before the process is complete, the profile link will be cancelled
- To unlink the profile, the smart phone does not need to be on the wireless charger.

Vehicle personalization operation

The personalization function linked with digital key works as following conditions:

- Contact the driver's door handle with the profile linked smart phone to lock or unlock the doors (Personalization does not operate when locking or unlocking the front passenger door.)
- Remote door unlock with the profile linked smartphone digital key app.

The profile linked with digital key can be changed manually in the infotainment system setup screen.

Precaution for digital key profile link and unlink

Profile operation according to door lock/unlock system is as follows.

Item	Personalization Operation
Initial value	Guest
Profile linked smart phone key	Linked profile
Profile unlinked smart phone key	Recently activated profile
NFC card key	
Smart key	

- The personalization function using the digital key can be operated after linking the digital key on the infotainment system profile menu.
- You should use the personalization function during stopping your vehicle safely.

Vehicle personalization with digital key

The available personalization function in the vehicle is as follows.

System	Personalization Item	
USM	Lamp	Blink number of one-touch signal lamps
	Cluster	Information display on the cluster, Voice volume, Welcome sound
	Seat/Mirror	Seat position, O/S mirror position, Easy Access
		Intelligent driving posture assist (Smart IMS)
	Door	Automatic door lock/unlock, Two Press Unlock
Infotainment system	Navigation	Preferred volume of the navigation system, Recent destination
	User preset	My menu list settings, Radio preset
	Phone connectivity	Bluetooth preferential connect CarPlay/Android Auto On/Off
Air conditioning	Operating condition	Latest operation setup of the following functions: Temperature, AUTO, air flow direction, air volume, air conditioner, air intake control, SYNC, Front windshield defroster, OFF

For more information of personalization, refer to the infotainment system manual.

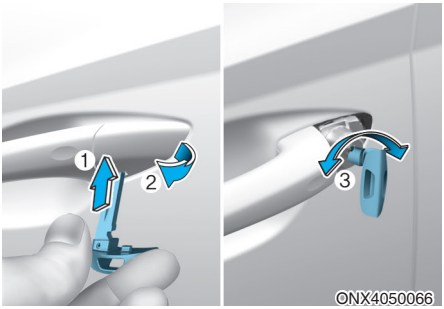
CAUTION

If you leave the digital key after locking or unlocking the doors or starting up the vehicle with the smart key, the doors can be locked by the central door lock. Please carry around the digital key all the time.

DOOR LOCKS

Operating Door Locks from Outside the Vehicle

Mechanical key



1. Pull out the door handle.
2. Press the release button (1) located inside the bottom part of the cover with a mechanical key or flat-head screwdriver.
3. Carefully pull outward on the cover (2) while continuing to press the release button to remove the cover and expose the key cylinder.
4. Insert the mechanical key into the key cylinder and rotate clockwise to unlock the vehicle and counterclockwise to lock the vehicle (3).

Once the doors are unlocked, they may be opened by pulling the door handle.

When closing the door, push the door by hand. Make sure that doors are closed securely.

Information

Be careful when locking the door by mechanical key operation, only the driver's door can be locked/unlocked.

Information

- **When removing the key cylinder cover, use care to avoid scratching or breaking the plastic material. Do not lose the key cylinder cover.**
- **In the case of trying to remove the key cylinder cover in cold climate or freezing temperatures, use extra caution.**
- **If the key cylinder cover freezes and cannot be removed easily, lightly tap on the cover or try to warm the cover by placing your hands around it and blowing warm air, etc.**
- **Do not apply excessive force to the door and door handle. It may be damaged.**

Remote key



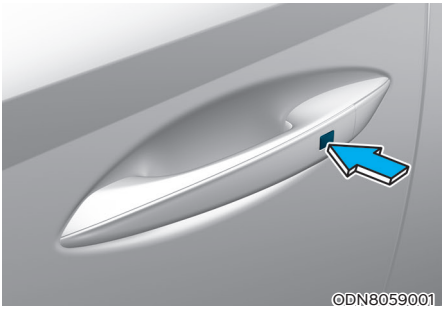
To lock the doors, press the Door Lock button (1) on the remote key.

To unlock the doors, press the Door Unlock button (2) on the remote key.

Once the doors are unlocked, they may be opened by pulling the door handle.

When closing the door, push the door by hand. Make sure that doors are closed securely.

Smart key



Touch Sensor Door Handle (if equipped):

To Lock the Doors

While having the Smart Key in your possession, touch the outer part of the door handle on or near the handle detent for about 1 second or until you hear the door locks actuate.

To Unlock the Doors

Press the Door Unlock button on your Smart Key or, with the Smart Key in your possession, simply grab the door handle inside portion to activate the unlock door touch sensor to unlock the doors.

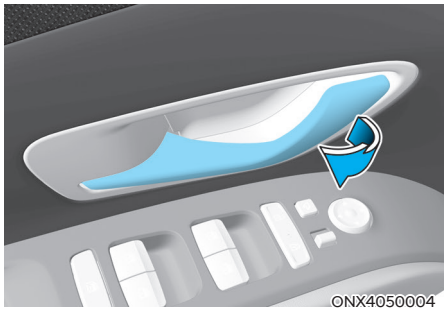
When closing the door, use enough force to make sure the doors are closed securely.

Information

- **In cold and wet climates, door lock and door mechanisms may not work properly due to freezing conditions.**
- **If the door is locked/unlocked multiple times in rapid succession with either the vehicle key or door lock switch, the system may stop operating temporarily in order to protect the circuit and prevent damage to system components.**

Operating Door Unlocks from Inside the Vehicle

With the door inside handle



Driver door & Passenger door

If the inner door handle is pulled when the door is locked, the door will unlock and open.

Rear Door - Two Pull Operation

If the inner door handle is pulled once when the door is locked, the door will unlock. If the inner door handle is pulled once more, the door will open.

If any door is opened, the doors will not lock even though the central door lock switch is pressed.

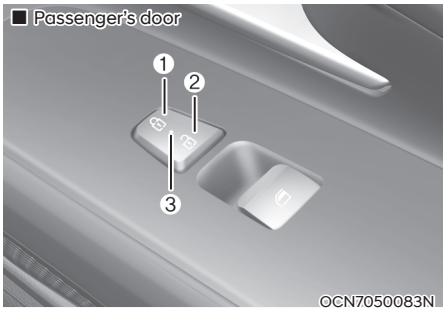
Information

If a power door lock ever fails to function while you are in the vehicle try one or more of the following techniques to exit:

- **Operate the door unlock feature repeatedly (both electronic and manual) while simultaneously pulling on the door handle.**
- **Operate the other door locks and handles.**
- **Lower a front window and use the mechanical key to unlock the door from outside.**

With the door lock/unlock switch





- When pressing the (🔒) portion (1) on the switch, all vehicle doors will lock.
  - If any door is opened, the doors will not lock even though the lock button (1) of the driver door lock switch is pressed.
  - If any door is opened, the doors will not lock even though the central door lock switch (1) is pressed.
- When pressing the (🔓) portion (2) on the switch, all vehicle doors will unlock.
- All Doors Locked LED Indicator (3)

  When all vehicle doors are locked, the indicating lights on the driver's door and passenger's door will turn on. If any door is unlocked, the indicator will turn off.

WARNING

- **The doors should always be fully closed and locked while the vehicle is in motion. If the doors are unlocked, the risk of being thrown from the vehicle in a crash is increased.**
- **Do not pull the inner door handle of the driver's or passenger's door while the vehicle is moving.**

WARNING

Do not leave the elderly, children or animals unattended in your vehicle. An enclosed vehicle can become extremely hot, causing death or serious injury to the elderly, unattended children or animals who cannot escape from the vehicle. Children might operate features of the vehicle that could injure them, or they could encounter other harm, possibly from someone gaining entry to the vehicle.

WARNING

Always secure your vehicle.

Leaving your vehicle unlocked increases the potential risk to you or others from someone hiding in your vehicle.

To secure your vehicle, while depressing the brake, shift the gear to the P (Park) position, engage the parking brake, and press the Engine Start/Stop button to the OFF position, close all windows, lock all doors, and always take the key with you.

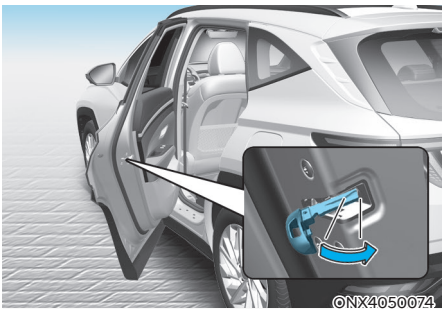
CAUTION

Opening a door when something is approaching may cause damage or injury. Be careful when opening doors and watch for vehicles, motorcycles, bicycles or pedestrians approaching the vehicle in the path of the door.

WARNING

Do not remain in your vehicle for long periods of time during inclement weather or in extreme temperature conditions (cold or hot). Doing so may risk possible injury or even death. Do not lock the vehicle from the outside when someone is in the vehicle.

In case of an emergency



If the electrical power door lock switch is not operating (for example, dead car battery) the only way to lock the door(s) is with the mechanical key from the outside key hole.

Doors without an outside key hole can be locked as follows:

1. Open the door.
2. Insert the key into the emergency door lock hole and turn the key horizontally to lock.
3. Close the door securely.

Information

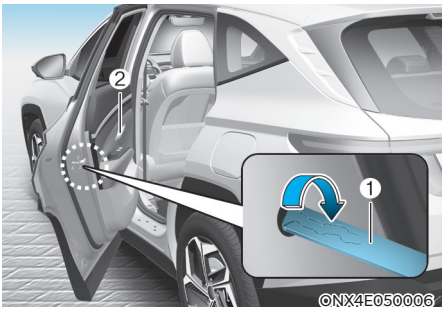
If the electrical power to door lock switch is not operating (ex. dead car battery) and the liftgate is closed, you will not be able to open the liftgate until power is restored.

Auto Door Lock/Unlock Features

Impact sensing door unlock system

All doors will be automatically unlocked when an impact causes the air bags to deploy.

Child-protector Rear Door Locks



The child safety lock is provided to help prevent children seated in the rear from accidentally opening the rear doors. The rear door safety locks should be used whenever children are in the vehicle.

The child safety lock is located on the edge of each rear door. When the child safety lock is in the lock position, the rear door will not open if the inner door handle is pulled.

To lock the child safety lock, insert a small flat blade tool (like a screwdriver or similar) (1) into the slot and turn it to the lock position as shown.

To allow a rear door to be opened from inside the vehicle (2), unlock the child safety lock.

WARNING

If children accidentally open the rear doors while the vehicle is in motion, they could fall out of the vehicle. The rear door safety locks should always be used whenever children are in the vehicle.

THEFT-ALARM SYSTEM

This system helps to protect your vehicle and valuables. The horn will sound and the hazard warning lights will blink continuously if any of the following occur:

- A door is opened without using the smart key.
- The liftgate is opened without using the smart key.
- The engine hood is opened.

The alarm continues for 30 seconds, then the system resets. To turn off the alarm, unlock the doors with the smart key.

The Theft Alarm System automatically sets 30 seconds after you lock the doors and the liftgate. For the system to activate, you must lock the doors and the liftgate from outside the vehicle with the smart key or by touching the touch sensor on the outside of the door handle with the smart key in your possession.

The hazard warning lights will blink and the chime will sound once to indicate the system is armed.

Once the security system is set, opening any door, the liftgate, or the hood without using the smart key will cause the alarm to activate.

The Theft Alarm System will not set if the hood, the liftgate, or any door is not fully closed. If the system will not set, check the hood, the liftgate, or the doors are fully closed.

Do not attempt to alter this system or add other devices to it.

Information

- **Do not lock the doors until all passengers have left the vehicle. If the remaining passenger leaves the vehicle when the system is armed, the alarm will be activated.**
- **If the vehicle is not disarmed with the smart key, open the doors by using the mechanical key and start the engine by directly pressing the Engine Start/Stop button with the smart key.**
- **If the system is disarmed by unlocking the vehicle, but neither a door or the liftgate is opened within 30 seconds, the doors will relock and the system will rearm automatically.**

REAR OCCUPANT ALERT (ROA) (IF EQUIPPED)

Rear Occupant Alert is provided to prevent a driver from leaving a vehicle with the rear passenger left in the vehicle.

System Setting

To use Rear Occupant Alert, it must be enabled from the Settings menu in the infotainment system screen. Select:

- Setup → Vehicle Settings → Convenience → Rear Occupant Alert

Information

The infotainment system may change after software updates. For more information, refer to the user's manual provided in the infotainment system and the quick reference guide.

System Operation

- First alert

  When you turn off the engine and open the driver's door after opening and closing the rear door or liftgate, the 'Check rear seats' warning message appears on the cluster.

- Second alert

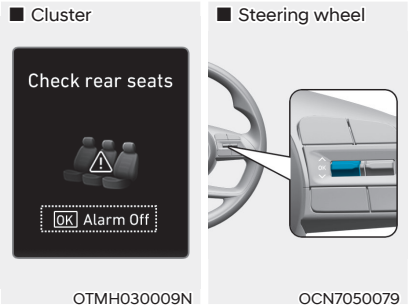
  After the first alert, the second alert operates when any movement is detected in the vehicle after the driver's door is closed and all the doors are locked. The horn will sound for approximately 25 seconds. If the system continues to detect a movement, the alert operates up to 8 times.

  Unlock the doors with the smart key to stop the alert.

- The system detects movement in the vehicle for 8 hours after the door is locked.
- The second alert is activated only after the prior activation of the first alert.

System Precautions

- Make sure that all the windows are closed. If the window is open, the alert may operate by the sensor detecting an unintended movement (for example, wind or bugs).
- ■ Cluster ■ Steering wheel



  If you do not want to use Rear Occupant Alert, press the OK button on the steering wheel when the first alert is displayed on the cluster. Doing so will deactivate the second alert one time.
- An alert can occur if there is an impact on the roof.
- If boxes or objects are stacked in the vehicle, the system may not detect the boxes or objects. Or, the alert may operate if the boxes or objects fall off.
- The sensor may not operate normally if the sensor is blocked with foreign substances.
- The alert may operate if movement in the driver or passenger seat is detected.
- The alert may operate with the doors locked due to car wash or surrounding vibration or noise.
- If the vehicle is started remotely (if equipped with Remote Start), inside movement detection will stop.

WARNING

Even if your vehicle is equipped with Rear Occupant Alert, always make sure to check the rear seat before you leave the vehicle.

Rear Occupant Alert may not operate when:

- **Movement does not continue for a certain period of time or the movement is small.**
- **The rear passenger is covered with an object such as a blanket.**
- **Always be cautious of the passenger's safety as the detection function and second alert may not operate depending on the surrounding environment and certain conditions.**

INTEGRATED MEMORY SYSTEM (IF EQUIPPED)



The IMS, or Integrated Memory System, for the driver's seat is equipped on some models. This feature allows the driver to store and recall the following position settings with a simple button operation:

- Driver's seat position

WARNING

Never attempt to operate the integrated memory system while the vehicle is moving.

This could result in loss of control, and an accident causing death, serious injury, or property damage.

Information

- **If the battery terminal (For plug-in hybrid vehicle) or the battery connector (For hybrid vehicle) is disconnected, the memory settings will be erased.**
- **If the Integrated Memory System does not operate normally, have the system inspected by an authorized HYUNDAI dealer.**

Storing Memory Positions

1. Make sure that the vehicle is in the ON position and the vehicle speed is below 1.8 mph (3 km/h).
2. Adjust the driver's seat to the desired fore/aft position, seat height, and reclining position. Adjust the driver to the desired position.
3. Press the SET button. The system will beep once and notify you 'Press button to save settings' on the cluster LCD display.
4. Press one of the memory buttons (1 or 2) within 4 seconds. The system will beep twice when the memory has been successfully stored.
5. 'Driver 1 (or 2) settings saved' will appear on the cluster LCD display. The message appears only for the driver's seat position memory setting.

Recalling Memory Positions

1. Make sure that the vehicle is in the ON position and the vehicle speed is below 1.8 mph (3 km/h).
2. Press the desired button (1 or 2). The system will beep once and the driver's seat position will be automatically adjusted to the stored positions.
3. 'Driver 1 (or 2) settings applied' will appear on the cluster LCD display.

Information

- **Note that while the memory settings are being recalled, if you press the SET button or the corresponding IMS memory button (1 or 2) for which the settings are being recalled, the IMS will temporarily deactivate. If you select the alternate IMS memory button (1 or 2), the IMS will activate according to the settings of the alternate button.**

  For example, if you press the SET button or the number 1 button with the number 1 setting in operation, the IMS will temporarily deactivate.

  If you press the number 2 button, then the IMS memory settings according to number 2 will activate.
- **If you adjust the driver seat settings or side mirror settings while the IMS is recalling the stored positions, the memory settings will not be applied.**

Resetting the System

Follow the below procedures to reset the Integrated Memory System (IMS) if it is not operating properly:

Resetting the Integrated Memory System (IMS)

1. Make sure that the vehicle is in Park (P) and the engine is ON. Open the driver's door.
2. Adjust the driver's seat and seatback angle to the most forward positions.
3. Press the SET button and push forward the driver's seat switch simultaneously (about two seconds).
4. Release the SET button and the driver's seat switch when a beep sounds.

While resetting integrated memory system

1. Resetting starts with a notification sound.
2. The driver's seat and seatback is adjusted to the rearward position with the notification sound.
3. The driver's seat and seatback is re-adjusted to the default position (central position) with the notification sound.

However, in the following cases, the resetting procedure and the notification sound may stop.

- The memory button is pressed.
- The seat control switch is operated.
- The gear is shifted out of P (Park).
- The driving speed exceeds 2 mph (3 km/h).
- The driver's door is closed.

NOTICE

- **While integrated memory system is being reset, if the resetting and notification sound stops incompletely, restart the resetting procedure again.**
- **Before performing the IMS memory reset operation, make sure there are no objects on or around the driver's seat.**

Seat Easy Access Operation (if equipped)

The system will move the driver's seat automatically as follows:

- Vehicles equipped with Driver's Power Seat and Smart Key
  - The driver's seat will move rearward when the Engine Start/Stop button is pressed to turn the engine OFF.
  - The driver's seat will move forward when the Engine Start/Stop button is pressed to the ACC or engine START position.

Note that Seat Easy Access operation may be limited when the driver's seat position setting is already close to the maximum rearward travel position.

You can enable or disable the Seat Easy Access feature in the User Settings menu on the cluster display or the navigation infotainment screen on some models. 'Convenience → Seat Easy Access → Off/ Normal/Extended'.

For more details, refer to "Cluster Display" In chapter 4.

CAUTION

The driver should be aware and be cautious to avoid injury or damage when using this feature if there are objects or passengers in the driver's side rear seat or seat floor.

In case of emergency or to stop movement of the front seat when the Seat Easy Access is operating, press the SET button or any of the driver's seat control switches.

STEERING WHEEL

Motor Driven Power Steering (MDPS)

The Motor Driven Power Steering (MDPS) assists you with steering the vehicle. If the vehicle is turned off or if the power steering system becomes inoperative, you may still steer the vehicle, but it will require increased steering effort.

Should you notice any change in the effort required to steer during normal vehicle operation, have the system checked by an authorized HYUNDAI dealer.

CAUTION

If Motor Driven Power Steering does not operate normally, the ! warning light and the message 'Check motor driven power steering' will illuminate on the instrument cluster. You may steer the vehicle, but it will require increased steering efforts. Take the vehicle to an authorized HYUNDAI dealer and have the system checked as soon as possible.

Information

The following symptoms may occur during normal vehicle operation:

- **The steering effort may be high immediately after pressing the Engine Start/Stop button to the ON position.**

  This happens as the system performs the MDPS system diagnostics. When the diagnostics are completed, the steering wheel effort will return to its normal condition.
- **When the battery voltage is low, you might have to put more steering effort. However, it is a temporary condition so that it will return to normal condition after charging the battery.**
- **A click noise may be heard from the MDPS relay after the Engine Start/Stop button is in the ON or OFF position.**
- **Motor noise may be heard when the vehicle is at a stop or at a low driving speed.**
- **When you operate the steering wheel in low temperatures, abnormal noise may occur. If the temperature rises, the noise will disappear. This is a normal condition.**
- **When the vehicle is stationary, if you turn the steering wheel all the way to the left or right continuously, the steering wheel effort increases. This is not a system malfunction. As time passes, the steering wheel effort will return to its normal condition.**
- **When an error is detected from MDPS, the steering effort assist function will not be activated in order to prevent fatal accidents. Instrument cluster warning lights may be on or the steering effort may be high. If these symptoms occur, drive the vehicle to a safe area as soon as it is safe to do so. Have the system checked by an authorized HYUNDAI dealer as soon as possible.**

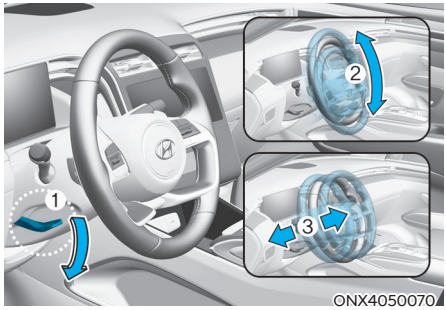
Tilt / Telescopic Steering

When adjusting the steering wheel to a comfortable position, adjust the steering wheel so that it points toward your chest, not toward your face. Make sure you can see the instrument cluster warning lights and gauges. After adjusting, push the steering wheel both up and down to be certain it is locked in position.

Always adjust the position of the steering wheel before driving.

WARNING

NEVER adjust the steering wheel while driving. This may cause loss of vehicle control resulting in an accident.



To adjust the steering wheel angle and height:

1. Pull down the lock-release lever (1).
2. Adjust the steering wheel to the desired angle (2) and distance forward/back (3).
3. Pull up the lock-release lever to lock the steering wheel in place.

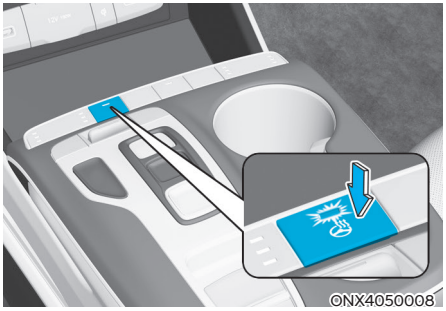
CAUTION

While adjusting the steering wheel angle and height, please do not push or pull it hard since the fixture can be damaged.

Information

Sometimes the lock release lever may not engage completely. This may occur when the gears of the locking mechanism do not completely mesh. If this occurs, pull down on the lock-release lever, readjust the steering wheel again, and then pull back up on the release lever to lock the steering wheel in place.

Heated Steering Wheel (if equipped)



When the Engine Start/Stop button is in the ON position or when the engine is running, press the heated steering wheel button to warm the steering wheel.

The indicator on the button will illuminate.

To turn the heated steering wheel off, press the button again. The indicator on the button will turn off.

- Auto Comfort Control for Driver (if equipped)
  - The Automatic Comfort Control feature can control the steering wheel heater operation according to the ambient temperature and the set climate control temperature while the engine is running.

    If the heated steering wheel switch is pressed while the Automatic Comfort Control feature is operating, then the heated steering wheel operation will be controlled manually.

    The Auto Comfort Control feature is enabled from the Vehicle Settings menu on the infotainment system screen.
  - The heated steering wheel defaults to the OFF position whenever the ignition switch is ON. However, if the Auto Comfort Control function is ON, the heated steering wheel will turn on and off depending on the ambient temperature and the set climate control temperature.

Information

The infotainment system may change after software updates. For more information, refer to the user's manual provided in the infotainment system and the quick reference guide.

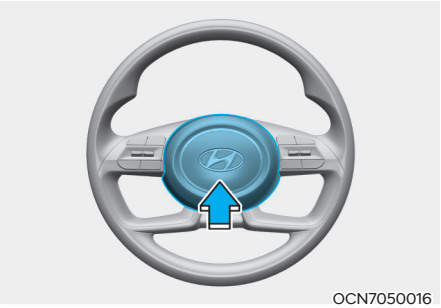
Information

The heated steering wheel will turn off automatically approximately 30 minutes after the heated steering wheel is turned on.

NOTICE

Do not install any cover or accessory on the steering wheel. This cover or accessory could cause damage to the heated steering wheel system.

Horn



OCN7050016

To sound the horn, press the area indicated by the horn symbol on your steering wheel (see illustration). The horn will operate only when this area is pressed.

NOTICE

Do not strike the horn severely to operate it, or hit it with your fist. Do not press on the horn with a sharp-pointed object.

MIRRORS

Inside Rearview Mirror

Before driving your vehicle, check to see that your inside rearview mirror is properly positioned. Adjust the rearview mirror so that the view through the rear window is properly centered.

WARNING

Make sure your line of sight is not obstructed. Do not place objects in the rear seat, cargo area, or behind the rear head restraint which could interfere with your vision through the rear window.

WARNING

To prevent serious injury during an accident or deployment of the air bag, do not modify the rearview mirror and do not install a wide mirror.

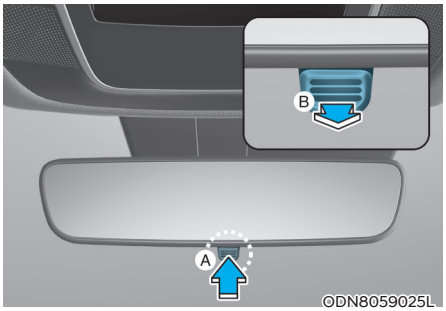
WARNING

NEVER adjust the mirror while driving. This may cause loss of vehicle control resulting in an accident.

NOTICE

When cleaning the mirror, use a paper towel or similar material dampened with glass cleaner. Do not spray glass cleaner directly on the mirror as this may cause the liquid cleaner to enter the mirror housing.

Day/night rearview mirror (if equipped)



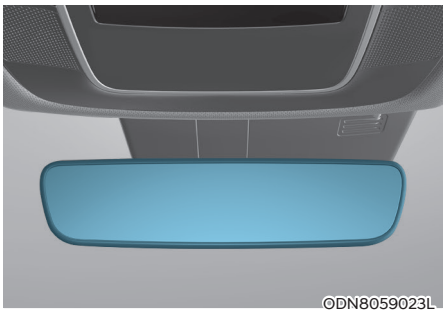
[A] : Day, [B] : Night

Make this adjustment before you start driving and while the day/night lever is in the day position.

Pull the day/night lever towards you to reduce glare from the headlights of the vehicles behind you during night driving.

Remember that you lose some rearview clarity in the night position.

Electrochromic Mirror (if equipped)



The electrochromic rearview mirror automatically controls the glare from the headlight of the vehicle behind you in nighttime or low light driving conditions.

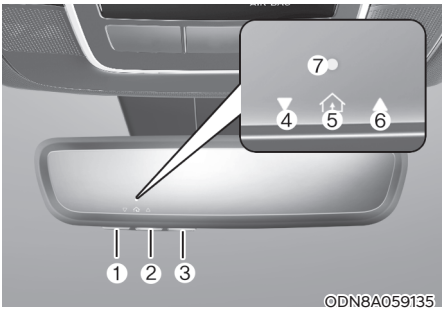
When the engine is running, the glare is automatically controlled by the sensor mounted in the rearview mirror. The sensor detects the light level around the vehicle, and automatically adjusts to control the headlight glare from vehicles behind you.

Whenever the transmission is shifted to R (Reverse), the mirror will automatically go to the brightest setting in order to improve the driver's view behind the vehicle.

Electrochromic Mirror with Homelink System (if equipped)

Your vehicle may be equipped with a Gentex Automatic-Dimming Mirror with an Integrated HomeLink® Wireless Control System.

During nighttime driving, this feature will automatically detect and reduce rearview mirror glare. The HomeLink® Universal Transceiver allows you to activate your garage door(s), electric gate, home lighting, etc.



(1) HomeLink Channel 1
(2) HomeLink Channel 2
(3) HomeLink Channel 3
(4) Garage Door Opener Status Indicator: Closing or Closed
(5) HomeLink Operation Indicator
(6) Garage Door Opener Status Indicator: Opening or Opened
(7) HomeLink User Interface Indicator

Integrated HomeLink® Wireless Control System

The HomeLink® Wireless Control System provides a convenient way to replace up to three hand held radio-frequency transmitters used to activate compatible devices such as gate operators, garage door openers, entry door locks, security systems, and home lighting.

NOTICE

HomeLink® operates while the ignition switch is in the ACC or ON position for safety reasons. It is to prevent unintentional security problems from happening when the vehicle is parked outside the garage.

WARNING

Before programming HomeLink® to a garage door opener or gate operator, make sure people and objects are out of the way of the device to prevent potential harm or damage. Do not use the HomeLink® with any garage door opener that lacks the safety stop and reverse features required by U.S. federal safety standards (this includes any garage door opener model manufactured before April 1, 1982). A garage door that cannot detect an object - signaling the door to stop and reverse - does not meet current U.S. federal safety standards. Using a garage door opener without these features increases the risk of serious injury or death.

For more information, contact HomeLink® at www.homelink.com, or call Home-Link customer support at 1-800-355-3515.

It is also recommended that a new battery be replaced in the handheld transmitter of the device being trained to HomeLink® for quicker training and accurate transmission of the radio frequency.

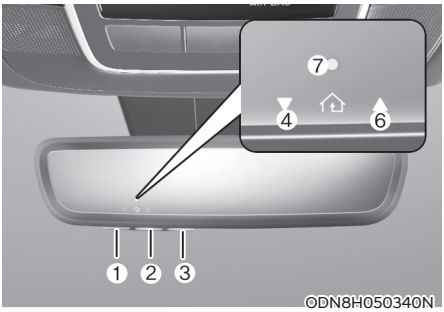
1. Programming HomeLink®

The following steps show how to program HomeLink. If you have any questions or are having difficulty programming your HomeLink buttons, refer to the HomeLink website or call the HomeLink customer support toll-free number. Do this before going back to the dealer who sold you the car.

- Visit the HomeLink website at: www.homelink.com. Then at the top of the page, choose your vehicle make. Then watch the You Tube video, and/or access additional website information.
- If you choose to access the website via your cell phone, scan the QR code.

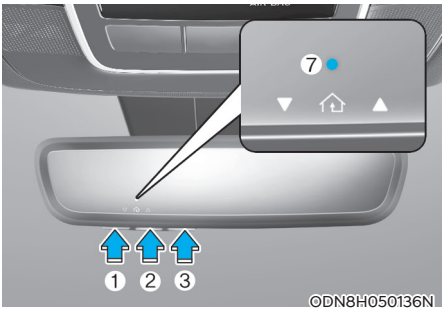
- Or call HomeLink customer support at 1-800-355-3515 (Please have the vehicle make/model and the opener device make/model readily available.)

1) Programming Preparation

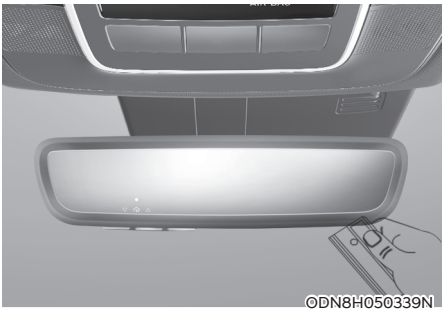


1. When programming a garage door opener, it is advised to park the vehicle outside of the garage.
2. It is recommended that a new battery be placed in the handheld transmitter of the device being programmed to HomeLink for quicker training and accurate transmission of the radio-frequency signal.
3. Place the ignition switch to the ACC (Accessory) position for programming of HomeLink.

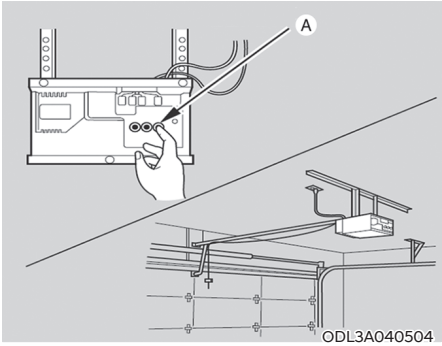
2) Programming a New HomeLink®



1. Press and release the HomeLink button (1), (2) or (3), you would like to program. The HomeLink indicator light (7) will flash orange slowly (if not, perform the steps of “Erasing HomeLink Buttons” section, and start over).


ODN8H050339N

2. Position the garage door opener remote 1 – 3 inches (2 – 8cm) away from the HoleLink buttons.
3. While the HomeLink indicator light (7) is flashing orange, press and hold the hand-held remote button. Continue pressing the handheld remote button until the HomeLink indicator light (7) changes from orange to green. You may now release the handheld remote button.
4. Wait until your garage door comes to a complete stop, regardless of position, before proceeding to the next steps.
5. Press and release the HomeLink button you are programming and observe the indicator light.
   - If the indicator light remains solid green, your device should operate when the HomeLink button is pressed. At this point, if your device operates, programming is complete.
   - If the indicator light rapidly flashes green, firmly press, hold for two seconds and release the HomeLink button up to three times in a row slowly to complete the programming process. Do not press the HomeLink button rapidly. At this point if your device operates, programming is complete. If the device does not operate, continue with step 6.
6. At the garage door opener motor, (security gate motor, etc.) locate the “Learn”, “Smart”, “Set” or “Program” button. This can usually be found where the hanging antenna wire is attached to the motor-head unit (see the device’s manual to identify this button). The name and color of the button may vary by manufacturer.



ODL3A040504

✳ A ladder and/or second person may simplify the following steps.

7. Firmly press and release the “Learn”, “Smart”, “Set” or “Program” button. You now have up to 30 seconds in which to complete the next step.
8. Return to the vehicle and firmly press, hold for two seconds and release, the HomeLink button up to three times in a row slowly. Do not press the HomeLink button rapidly. As soon as you see the garage door start to move, stop pressing any buttons until a few seconds after the garage door has come to a complete stop, regardless of position. At this point, programming is complete and your device should operate when the HomeLink button is pressed and released.

3) Two-Way Communication Programming (For select garage door openers)

If your garage door opener has the 'myQ' logo on its side, your opener likely has Two-Way Communication capability. HomeLink has the capability to establish Two-Way Communication with your garage door opener. HomeLink can receive and display "closing" or "opening" status messages from compatible garage door openers. At any time, Home-Link can also recall and display the last recorded status communicated by the garage door opener to indicate your garage door being "closed" or "opened".

To check if your garage door opener is compatible with this feature, refer to www.homelink.com/compatible/Two-way-Communication. If your garage door opener has this functionality, AND the Two-Way Communication indicators (4), (6) in the mirror appear while the garage door is opening/closing, then no further steps are needed. Two-Way Communication Programming is already complete. However, if your garage door opener has this functionality, AND the Two-Way Communication indicators (4), (6) in the mirror DO NOT appear while the garage door is opening/closing, use the following instructions to enable this functionality.

1. In your vehicle, press and hold the programmed HomeLink button for 2 seconds, then release. Confirm that the garage door is moving. AFTER it stops, you will have one minute to complete the following steps:

✳ A ladder and/or second person may simplify the following steps.

2. On your garage door opener in your garage, locate the "Learn" button (usually near where the hanging antenna wire is attached to the garage door opener). If there is difficulty locating this button, reference the device's owner's manual.
3. Press and release the "Learn" button.
4. A light on your garage door opener may flash, and your Two-Way Communication indicators (4), (6) in your vehicle may flash, confirming completion of the process.
5. Return to the vehicle and firmly press and release the programmed HomeLink button to activate your garage door. The Two-Way Communication indicators (4), (6) flash in orange when the door is moving. Do not make any additional button presses until AFTER the garage door has come to a complete stop.
6. Your Two-Way Communication programming is now complete.

Information

If your garage door opener has Two-Way Communication functionality, it is possible for HomeLink to stop functioning the garage door shortly after initial programming, IF the Two-Way Communication Programming wasn't properly completed. This usually happens after the first 10 times a programmed HomeLink button is pressed. If you experience this, completing the "Programming a New HomeLink Button" and "Two-Way Communication Programming" will restore door operation.

4) Canadian Programming

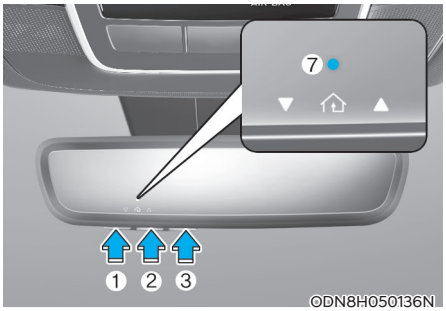
Canadian radio-frequency laws require transmitter remote signals to “time-out” (or quit) after a couple seconds of transmission, which may not be long enough for HomeLink to pick up the signal during programming.

If you live in Canada or you are having difficulties programming a gate operator or garage door opener by using the programming procedures, replace “Programming a New HomeLink Button” step 3 with the following:

While the HomeLink indicator light (7) is flashing orange, press and release (“cycle”) your device’s handheld remote every two seconds until the HomeLink indicator light (7) changes from orange to green. You may now release the hand-held remote button. Then proceed with “Programming a New HomeLink Button” step 4.

2. Operating HomeLink®

1) Operating HomeLink®



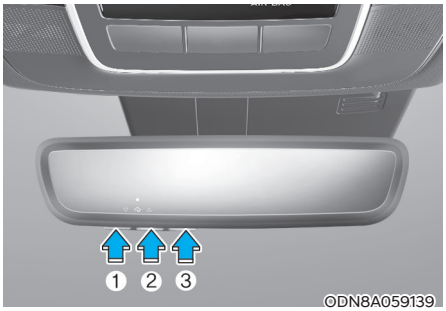
1. Press and release the desired programmed HomeLink button (1, 2 or 3).

Information

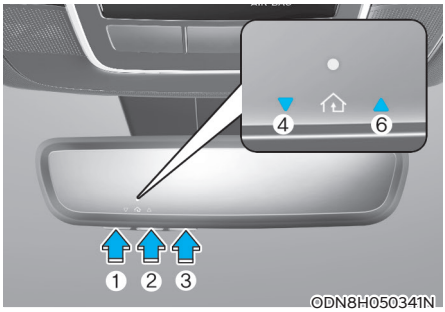
The HomeLink indicator (7) should light green, solid or flashing, and your programmed device should operate.

If your device does not operate, the HomeLink programming was not successful, and you’ll need to reprogram the button.

2) Two-Way Communication Display Behavior



1. Press and release one of the programmed HomeLink buttons (1, 2 or 3).



2. The indicator (4) and (6) operates as below, if your garage door opener has Two-Way Communication functionality.

- If the indicator (4) flashes in Orange, it indicates that the garage door is “Closing”.
- The indicator (4) turns solid green once the garage door has closed.
- If the indicator (6) flashes in Orange, it indicates that the garage door is “Opening”.
- The indicator (6) turns solid green once the garage door has fully opened.
- If the indicator (4) or (6) does not turn to green, it indicates that the last status of garage door was not received properly. The HomeLink mirror tries to receive the last known status of the garage door for a few seconds.

3) Recalling Garage Door Status

HomeLink mirror with Two-Way Communication provides a way to view the last stored message from the garage door opener. In order to recall the last known status of the last activated device, press the buttons “1 and 2” OR “2 and 3” simultaneously.

- If the indicator (4) appears solid Green, it indicates that the last activated device was “closed” properly.
- If the indicator (6) appears solid Green, it indicates that the last activated device was “open” properly.

3. Erasing HomeLink® Buttons

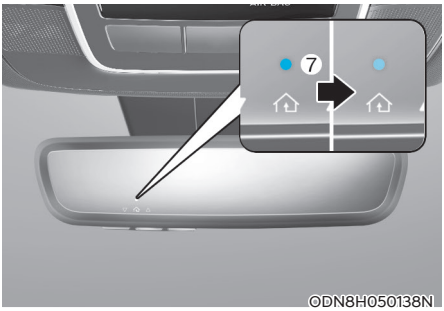
1) Erasing and Reprogramming a Single HomeLink® Button:

1. Press and hold the desired HomeLink button you want to re-program. DO NOT release the button.
2. The HomeLink indicator light (7) will illuminate solid green. Release the button as soon as the HomeLink indicator light (7) begins to flash orange, usually about 20 seconds.
3. Proceed with the steps in the “Programming a New HomeLink Button” section.

Information

If you do not complete the re-programming of a new device to the button, it will revert to the previously stored programming.

2) The following instructions will erase ALL HomeLink® programming from ALL buttons:



1. Press and hold the buttons (1) and (3) simultaneously.
2. The HomeLink indicator light (7) will illuminate solid Orange for about 10 seconds.
3. Release the buttons once the HomeLink indicator light (7) changes to Green and flashes rapidly.
4. Now all three HomeLink buttons (1), (2) and (3) are cleared of any programming.

Information

HomeLink® and the HomeLink® House logo are registered trademarks of Gentex Corporation.

The myQ logo is a registered trademark of The Chamberlain Group, Inc.

FCC (USA) and ISED (Canada)

This device complies with FCC rules part 15 and Innovation, Science, and Economic Development Canada RSS-210. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference that may be received including interference that may cause undesired operation. WARNING: The transmitter has been tested and complies with FCC and ISED rules. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

This equipment complies with FCC and ISED radiation exposure limits set forth for an uncontrolled environment. End Users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must be at least 20cm from the user and must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC (Htats-Unis) et ISED (Canada)

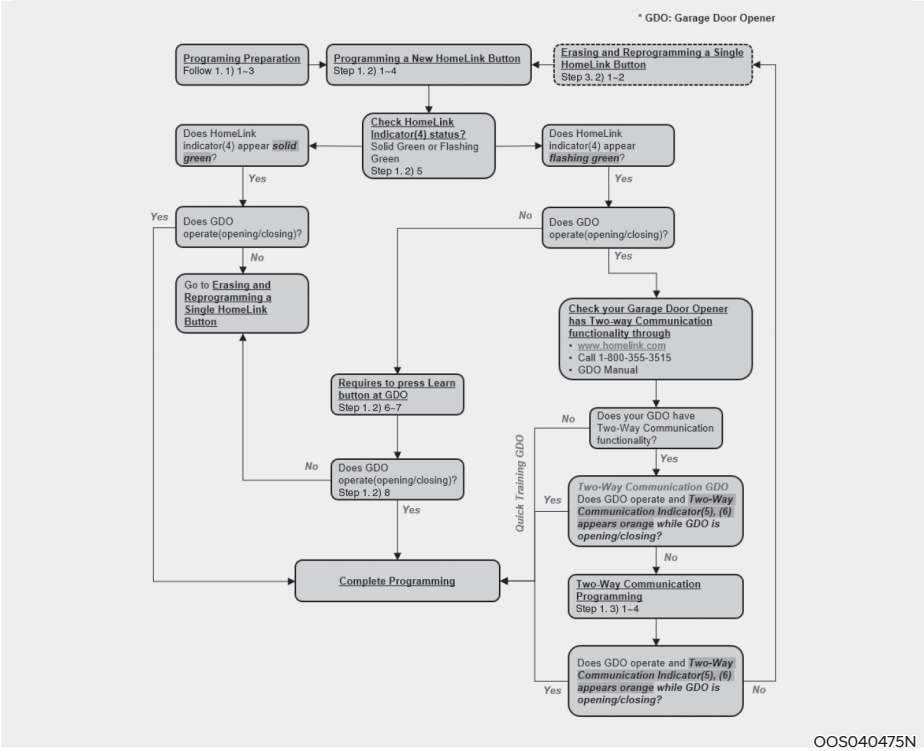
Cet appareil est conforme aux règlements de la FCC, section 15, et au CNR-210 d'Innovation, Sciences et Dhveloppement économique Canada. Le fonctionnement est assujetti aux deux conditions suivantes : (1) cet appareil ne doit pas causer d'interférences nuisibles et (2) cet appareil doit accepter toute interférence reçue, y compris celle qui pourrait entraîner un dysfonctionnement. MISE EN GARDE : L'émetteur a subi des tests et est conforme aux règlements de la FCC et d'ISDE. Les changements ou modifications non approuvés explicitement par la partie responsable de la conformité pourraient rendre caduque l'autorisation de l'utilisateur de se servir du dispositif.

Cet appareil est conforme aux limites d'exposition aux radiations de la FCC et d'ISDE établies pour un environnement non contrôlé. Les utilisateurs finaux doivent respecter les instructions d'utilisation spécifiques pour satisfaire aux exigences de conformité aux expositions de RF. L'émetteur doit se trouver à 20 cm au minimum de l'utilisateur et ne doit pas être situé au même endroit que tout autre émetteur ou antenne ni fonctionner avec un autre émetteur ou antenne.

Méjico

La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo pueda no causar interferencia dañina, y (2) este dispositivo o dispositivos deben aceptar cualquier interferencia, que incluye la interferencia que puede causar su operación no deseada.

HomeLink 5 Programing Flow Chart



OOS040475N

Side View Mirrors



Your vehicle is equipped with both left-hand and right-hand side view mirrors. The mirrors can be adjusted remotely with the mirror adjustment control switch. The side view mirrors can be folded manually to help prevent damage when going through an automatic car wash or when passing through a narrow street.

The right side view mirror is convex. Objects seen in the mirror are closer than they appear.

Use the inside rear view mirror or look back directly to determine the actual distance of other vehicles prior to changing lanes.

Make sure to adjust the side view mirrors to your desired position before you begin driving.

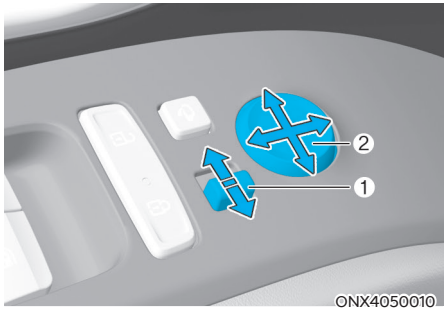
WARNING

Do not adjust or fold the side view mirrors while driving. This may cause loss of vehicle control resulting in an accident.

NOTICE

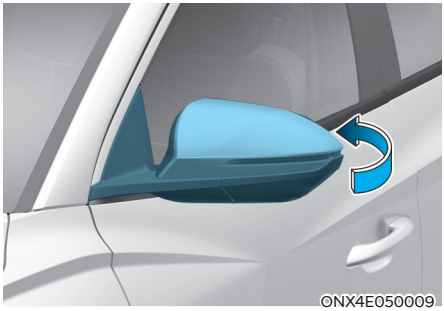
- **Do not scrape ice off the mirror face; this may damage the surface of the glass.**
- **If the mirror is jammed with ice, do not adjust the mirror by force. Use an approved de-icer (not radiator antifreeze) spray, or a sponge or soft cloth with very warm water, or move the vehicle to a warm place and allow the ice to melt.**
- **Do not clean the mirror with harsh abrasives, fuel or other petroleum based cleaning products.**

Adjusting the side view mirrors



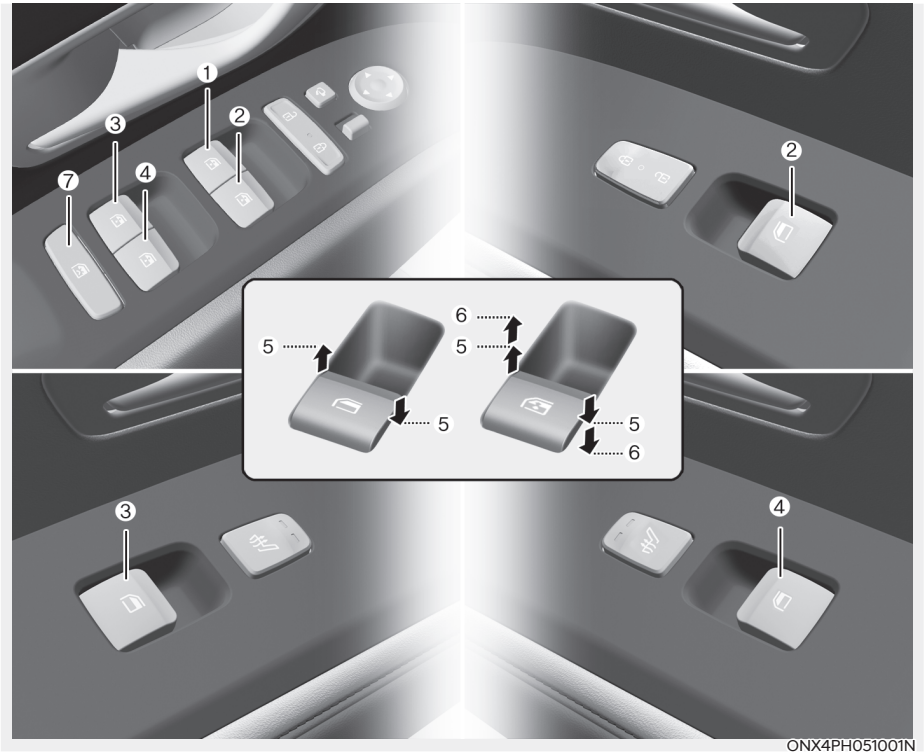
1. Move the lever (1) either to the L (left side) or R (right side) to select the side view mirror you would like to adjust.
2. Use the mirror adjustment control (2) to position the selected mirror up, down, left or right.
3. After adjustment, move the lever (1) to the middle to prevent inadvertent adjustment.

Folding the side view mirror



To fold the side view mirror, grasp the housing of the mirror and then fold it toward the rear of the vehicle.

WINDOWS



(1) Driver's door power window switch
(2) Front passenger's door power window switch
(3) Rear door (left) power window switch*
(4) Rear door (right) power window switch*
(5) Window opening and closing
(6) Automatic power window*
(7) Power window lock switch

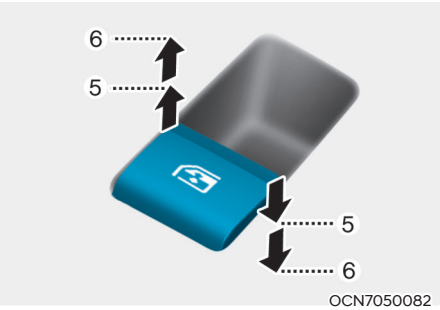
* : if equipped

Power Windows

The ignition switch must be in the ON position to be able to raise or lower the windows. Each door has a Power Window switch to control that door's window. The driver has a Power Window Lock switch which can block the operation of rear passenger windows. The power windows will operate for about 3 minutes after the ignition is turned OFF or if the ignition is placed in the ACC position, as long as the front doors remain closed.

If the front doors are opened, battery power is turned OFF and the Power Windows will not operate.

Window opening and closing



To open:

Press the window switch down to the first detent position (5). Release the switch when you want the window to stop.

To close:

Pull the window switch up to the first detent position (5). Release the window switch when you want the window to stop.

Auto down window

Pressing the power window switch momentarily to the second detent position (6) completely lowers the window even when the switch is released.

To stop the window at the desired position while the window is in operation, pull up or press down and release the switch.

Auto up/down window (if equipped)

Pressing or pulling up the power window switch momentarily to the second detent position (6) completely lowers or lifts the window even when the switch is released. To stop the window at the desired position while the window is in operation, pull up or press down and release the switch.

Resetting the power windows

If the power windows do not operate normally, the automatic power window system must be reset as follows:

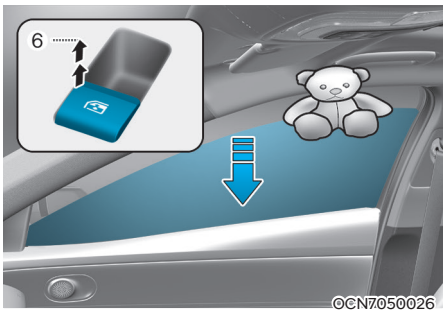
1. Press the ignition switch to the ON position.
2. Close the window and continue pulling up on the power window switch for at least one second.

If the power windows do not operate properly after resetting, have the system be inspected by an authorized HYUNDAI dealer.

WARNING

The automatic reverse feature doesn't activate while resetting the power window system. Make sure body parts or other objects are safely out of the way before closing the windows toavoid injuries or vehicle damage.

Automatic reverse



If a window senses any obstacle while it is closing automatically, it will stop and lower approximately 12 in. (30 cm) to allow the object to be cleared.

If the window detects the resistance while the power window switch is pulled up continuously, the window will stop upward movement then lower approximately 1 in. (2.5 cm).

If the power window switch is pulled up continuously again within 5 seconds after the window is lowered by the automatic window reverse feature, the automatic window reverse will not operate.

Information

The automatic reverse feature is only active when the "Auto Up" feature is used by fully pulling up the switch to the second detent.

NOTICE

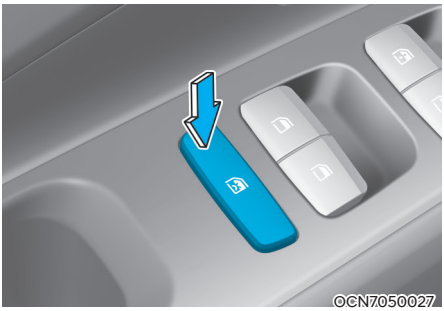
Do not install any accessories on the windows. The automatic reverse feature may not operate.

WARNING

Make sure body parts or other objects are safely out of the way before closing the windows to avoid injuries or vehicle damage.

Objects less than 0.16 in. (4 mm) in diameter caught between the window glass and the upper window channel may not be detected by the automatic reverse window and the window will not stop and reverse direction.

Power window lock button



The driver can disable the power window switches on the rear passenger doors by pressing the power window lock button.

When the power window lock button is pressed:

- The driver's master control can operate all the power windows.
- The front passenger's control can operate the front passenger's power window.
- The rear passenger's control cannot operate the rear passengers' power window.

✳ If the power window lock button is operated, rear passenger cannot open the rear door (if equipped with the Electronic Child Safety Lock System).

For more details, refer to "Electronic Child Safety Lock System" system in this chapter.

WARNING

Do not allow children to play with the power windows. Keep the driver's door power window lock button in the LOCK position. Serious injury or death can result from unintentional window operation by a child.

NOTICE

- **To prevent possible damage to the power window system, do not open or close two windows or more at the same time. This will also ensure the longevity of the fuse.**
- **Never try to operate the main switch on the driver's door and the individual door window switch in opposite directions at the same time. If this is done, the window will stop and cannot be opened or closed.**

Remote window opening function (if equipped)

■ Type A



ONX4050079N

■ Type B



ONX4050082N

You can still control the window movement with the engine turned off.

- Hold the Door Unlock button (1) for more than 3 seconds. The window moves down after the doors are unlocked, as long as you press the door unlock button. The window movement stops when you release the door lock button.

WARNING

If you stay on the function after operating the Remote window opening function, it is likely to cause a theft. In addition, please use caution there might be a malfunction due to the inflow of water while raining.

Information

- **The remote window opening function may abruptly stop when you move away from your vehicle during operation. Stay in close proximity to your vehicle while monitoring the window movement.**
- **One of the windows may stop operating, when the window is interrupted by certain force. However, the other windows will continue to operate. Thus, you should check that all windows are opened.**
- **Please be aware that the doors unlock when using the remote window opening function.**

PANORAMIC SUNROOF (IF EQUIPPED)

If your vehicle is equipped with a sunroof, you can slide or tilt your sunroof with the sunroof switch located on the overhead console.



The sunroof can only be operated when the Engine Start/Stop button is in the ON or START position.

The sunroof can be operated for approximately 3 minutes after the ignition switch or Engine Start/Stop button is in the ACC or LOCK/OFF position. However, if the front door is open, the sunroof cannot be operated even within the 3 minutes period.

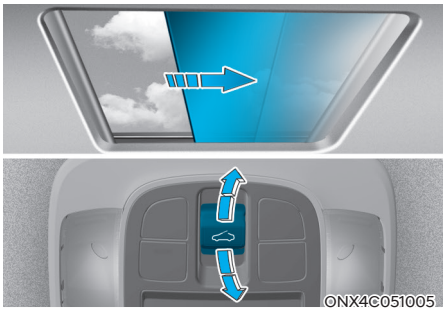
WARNING

- **Adjust the sunroof or sunshade when your vehicle stops. Adjusting the sunroof while driving could result in loss of control and an accident that may cause injury, or property damage.**
- **Do not leave the engine running and the key in your vehicle with unsupervised children. Unattended children could operate the sunroof, which could result in serious injury.**
- **Do not sit on the top of the vehicle. It may cause injury or vehicle damage.**

NOTICE

Do not operate the sunroof when roof bars are installed on the vehicle or when there is luggage on the roof.

Power Sunshade



Use the power sunshade to block direct sunlight coming through the sunroof glass.

- Push the sunroof switch rearward to the first detent position, the power sunshade automatically slides open.
- Push the sunroof switch forward to the first detent position, the power sunshade automatically closes. However, if the sunroof glass is open, the glass will close first.

To stop the power sunshade at any point, push the sunroof switch in any direction.

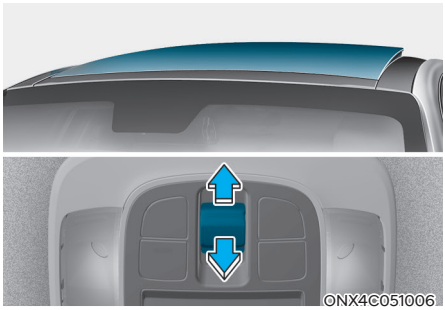
NOTICE

Do not pull or push the power sunshade by hand as such action may damage the power sunshade or cause it to malfunction.

Information

Wrinkles formed on the power sunshade are normal due to material characteristic.

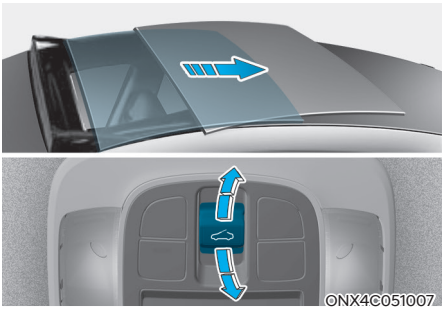
Tilt Open/Close



- Push the sunroof switch upward, the sunroof glass tilts open. However, if the power sunshade is closed, the sunshade will open first.
- Push the sunroof switch upward or forward when the sunroof glass is tilt opened, the sunroof glass automatically closes.

To stop the sunroof movement at any point, push the sunroof switch in any direction.

Slide Open/Close

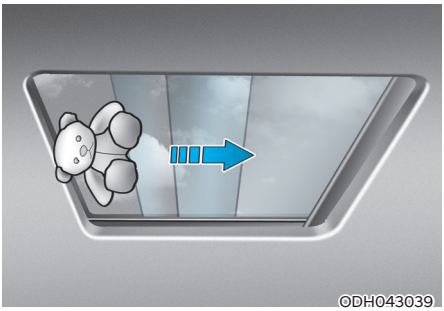


- Push the sunroof switch rearward to the first detent position, the sunroof glass slides open. However, if the power sunshade is closed, the power sunshade will open first.

  Push the sunroof switch forward to the first detent position, the sunroof glass closes. However, if the sunroof glass is closed, the power sunshade will close.
- Push the sunroof switch forward or rearward to the first detent position, the sunroof glass moves until the switch is released.
- Push the sunroof switch forward or rearward to the second detent position, the power sunshade and sunroof glass operate automatically (auto slide feature).

To stop the sunroof movement at any point, push the sunroof switch in any direction.

Automatic Reversal



If the power sunshade or sunroof glass senses any obstacle while it is closing automatically, it will reverse direction then stop at a certain position.

The auto reverse function may not work if an object thin or soft is caught between the sliding power sunshade or sunroof glass and sunroof sash.

WARNING

- **Make sure heads, hands, arms or any other body parts or objects are out of the way before operating the sunroof. Body parts or objects may get caught causing injuries or vehicle damage.**
- **Never deliberately use your body parts to test the automatic reversal function. The power sunshade or sunroof glass may reverse direction, but there is a risk of injury.**

NOTICE

- **Do not continue to push the sunroof switch after the sunroof is fully opened, closed, or tilted. Damage to the sunroof motor could occur.**
- **Continuous operations such as slide open/close, tilt open/close, etc. may cause the motor or sunroof system to malfunction.**
- **Regularly remove any accumulated dust on the sunroof rail.**
- **Dust accumulated between the sunroof and roof panel can make noise open the sunroof and remove dust regularly using a clean cloth.**
- **Do not try to open the sunroof when the temperature is below freezing or when the sunroof is covered with snow or ice. The sunroof may not work properly and may break if opened by force.**
- **Do not open or drive with the sunroof glass open immediately after rain or washing the vehicle. Water may wet the interior of the vehicle.**
- **Do not extend any luggage outside the sunroof while driving. Vehicle damage may occur if the vehicle suddenly stops.**

WARNING

Do not extend your head, arms, body parts or objects outside the sunroof while driving. Injuries may occur if the vehicle suddenly stops.

Resetting the Sunroof



In some circumstances resetting the sunroof operation may need to be performed. Some instances where resetting the sunroof may be required include:

- When battery terminal (For plug-in hybrid vehicle) or battery connector (For hybrid vehicle) is either disconnected or discharged
- When the sunroof fuse is replaced
- If the sunroof one-touch AUTO OPEN/CLOSE operation is not functioning properly

Sunroof resetting procedure:

1. It is recommended to perform the reset procedure with the vehicle engine running. Start the vehicle in P (Park).
2. Make sure the power sunshade and sunroof glass are in the fully closed position. If the power sunshade and sunroof glass are open, push the switch forward until the power sunshade and sunroof glass are fully closed.
3. Release the switch when the power sunshade and sunroof glass are fully closed.
4. Push the switch forward until the power sunshade and sunroof glass move slightly. Then release the switch.
5. Once again push and hold the sunroof switch forward until the power sunshade and sunroof glass slide open and close. Do not release the switch until the operation is completed. If you release the switch during operation, start the procedure again from step 2.

Information

If the sunroof is not reset when the vehicle battery terminal (For plug-in hybrid vehicle) or battery connector (For hybrid vehicle) is disconnected or discharged, or the sunroof fuse is blown, the sunroof may not operate normally.

Sunroof Open Warning



ONX4040010

If the driver turns off the engine when the sunroof is not fully closed, the warning chime will sound for several seconds and the sunroof open warning will appear on the cluster display.

Close the sunroof securely when leaving your vehicle.

CAUTION

Make sure the sunroof is closed fully when leaving your vehicle.

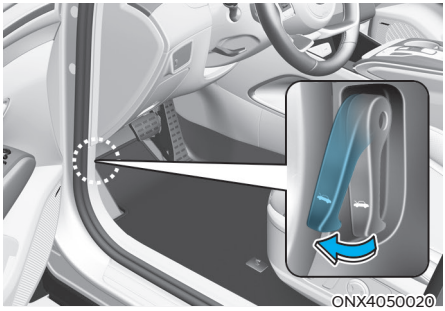
If the sunroof is left open, rain or snow may wet the interior of the vehicle.

Also, leaving the sunroof open when the vehicle is unattended may invite theft.

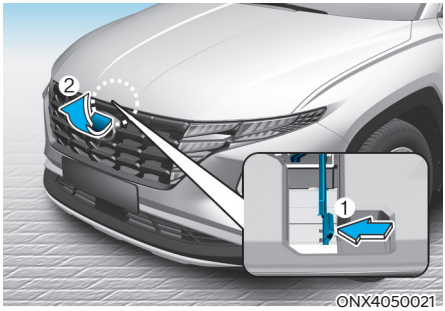
EXTERIOR FEATURES

Hood

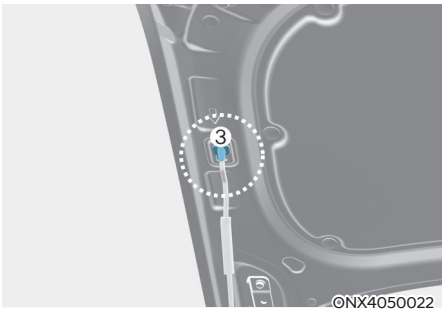
Opening the hood



1. Park the vehicle and set the parking brake.
2. Pull the release lever to unlatch the hood. The hood should pop open slightly.



3. Go to the front of the vehicle, raise the hood slightly, push up the secondary hood release lever (1) inside of the hood center and lift the hood (2).



4. Pull up on the hood support rod.
5. Install the end of the hood support rod into the slot located on the hood (3).

WARNING

- **Grasp the hood support rod in the area wrapped in rubber when the engine is hot. The rubber portion will insulate the heat and protect you from burn or injury.**
- **The end of the hood support rod must be inserted fully into the hood slot whenever you inspect the engine compartment. This will prevent the hood from falling and possibly injuring you.**

Closing the hood

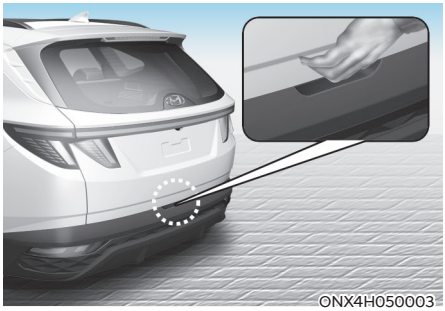
1. Before closing the hood, check in and around the engine compartment to ensure the following:
   - Any tools or other loose objects are removed from the engine room area or hood opening area
   - All glove, rags, or other combustible material is removed from the engine compartment
   - All filler caps are tightly and correctly installed
2. Return the hood support rod rod to its clip to prevent it from rattling.
3. Lower the hood until it is about 30 cm (12in.) above the closed position and let it drop. Make sure that it locks into place.
4. Check that the hood has engaged properly. If the hood can be raised slightly, it is not properly engaged. Open it again and close it with a little more force.

WARNING

- **Before closing the hood, ensure all obstructions are removed from around the hood opening.**
- **Always double check to be sure that the hood is firmly latched before driving away. Check there is no hood open warning light or message displayed on the instrument cluster. Driving with the hood opened may cause a total loss of visibility, which might result in an accident.**
- **Do not move the vehicle with the hood in the raised position, as vision is obstructed, which might result in an accident, and the hood could fall or be damaged.**

Liftgate

Opening the liftgate

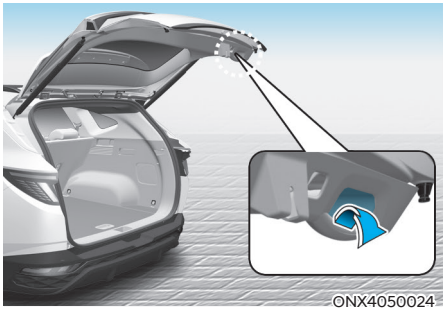

ONX4H050003

Make sure the vehicle is in P (Park) and set the parking brake.

Then do one of the following:

1. Unlock all doors with the Door Unlock button on your smart key. Press the liftgate handle button and open the liftgate.
2. Press and hold the liftgate Open button on the smart key to unlock the liftgate. Then press the liftgate handle button on the vehicle and open the liftgate.
3. With the Smart Key in your possession, press the liftgate handle button and open the liftgate.

Closing the liftgate



Lower the liftgate lid and press down until it locks. To be sure the liftgate lid is securely fastened, always check by trying to pull it up again without pressing the liftgate handle button.

WARNING

Always keep the liftgate completely closed while the vehicle is in motion. If it is left open or ajar, poisonous exhaust gases containing carbon monoxide (CO) may enter the vehicle and serious illness or death may result.

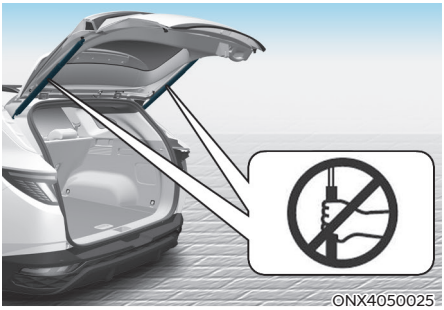
NOTICE

To prevent damage to the liftgate support struts and the attached hardware, always close the liftgate before driving.

Information

In cold and wet climates, the liftgate lock mechanism and the liftgate support struts may not operate properly in extreme cold temperatures. Use caution when operating the liftgate in sub-zero freezing conditions.

WARNING

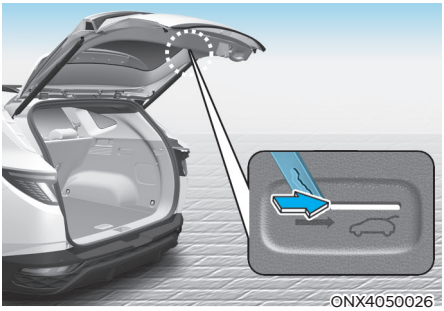


Do not grab or hold on to the liftgate support struts at any time. Damage to the liftgate support struts could result. Deformation of the liftgate support struts may cause vehicle damage and personal injury may occur.

WARNING

- **NEVER allow anyone to occupy the luggage compartment of the vehicle at any time. If the liftgate is partially or totally latched and the person is unable to get out, serious injury or death could occur due to lack of ventilation, exhaust fumes and rapid heat build-up, or because of exposure to cold weather conditions. The luggage compartment is also a highly dangerous location in the event of a crash because it is not a protected occupant space but is a part of the vehicle's crush zone.**
- **Your vehicle should be kept locked and keys should be kept out of the reach of children. Parents should teach their children about the dangers of playing in luggage compartments.**

Emergency liftgate safety release



Your vehicle is equipped with the emergency liftgate safety release lever located on the bottom of the liftgate.

When someone is inadvertently locked in the luggage compartment, the liftgate can be opened by moving the lever in the direction of the arrow and pushing the liftgate open.

WARNING

- **For emergencies, be fully aware of the location of the emergency liftgate safety release lever in the vehicle and how to open the liftgate if you are accidentally locked in the luggage compartment.**
- **No one should be allowed to occupy the luggage compartment of the vehicle at any time. The luggage compartment is a very dangerous location in the event of a crash.**
- **Use the release lever for emergencies only. Use with extreme caution, especially while the vehicle is in motion.**

Power Liftgate (if equipped)

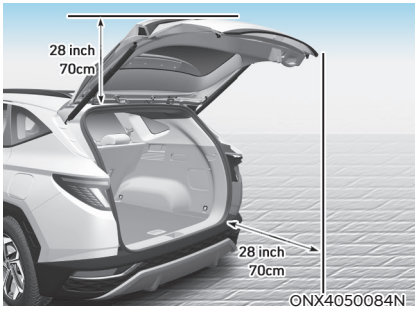
Power liftgate operating conditions

The power liftgate operates when the gear is in P (Park) with the engine running. However, the power liftgate will operate regardless of the gear position when the engine is off. Also, the liftgate can be opened only when vehicle speed is below 1.8 mph (3 km/h).

For safety, before attempting to open or close the liftgate, make sure the vehicle is in P (Park).

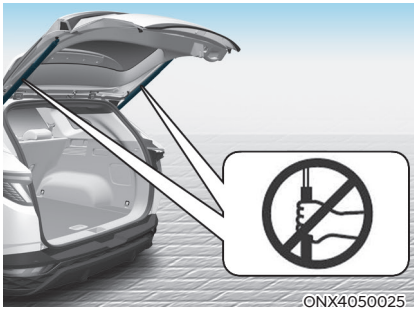
WARNING

- **Never leave children or animals unattended in your vehicle. Children may operate the power liftgate. Doing so can result in injury to themselves or others and can damage the vehicle.**
-



Make sure that there are no people or objects in the path of the power liftgate or smart liftgate prior to use. Serious injury, damage to the vehicle or damage to surrounding objects (for example, walls, ceilings, vehicles, etc.) may result if contact with the liftgate occurs.

NOTICE

- **Do not close or open the liftgate manually. This may cause damage to the power liftgate. If it is necessary to close or open the liftgate manually when battery terminal (For plug-in hybrid vehicle) or battery connector (For hybrid vehicle) is discharged or disconnected, do not apply excessive force.**
- **Do not operate the power liftgate more than 10 times continuously when the engine is not running. Use the power liftgate with the engine running when the power liftgate is used repeatedly to prevent battery discharge.**
- **Do not leave the power liftgate open for a long period of time. This may drain the battery.**
- **Do not apply excessive force when the power liftgate is operating. Doing so could result in vehicle damage.**
- 

  Do not grab or hold on to the liftgate support struts at any time. Damage to the liftgate support struts could result. Deformation of the liftgate support struts may cause vehicle damage and personal injury may occur.

- **Do not modify or repair any part of the power liftgate by yourself. This must be done by an authorized HYUNDAI dealer.**
- **Do not operate the power liftgate under the following conditions. The power liftgate may not operate properly.**
  - **One side of the vehicle is lifted to inspect the vehicle or change a tire**
  - **Parking on an uneven road such as a slope, etc.**
- **Close the liftgate completely and lock all doors and liftgate using the central door lock button before using an automatic car wash.**
- **Do not spray high pressure water directly on the power liftgate outside open/close button. The liftgate may open unintentionally.**

Information

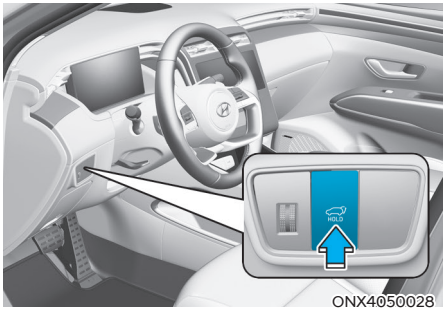
- **If the liftgate is not fully closed and vehicle speed is at or above 1.8 mph (3 km/h), a warning will sound 10 times. Immediately park the vehicle at a safe place, close the liftgate, and check that the liftgate open warning on the instrument cluster is turned off.**
- **In cold and wet climates, the outside power liftgate open/close button may not work properly due to freezing conditions. If this occurs, remove the ice before using the outside power liftgate open/close button or use the power liftgate open/close button on the smart key or the instrument panel.**
- **Operating the power liftgate more than 5 times continuously could cause damage to the operating motor. If this occurs, the power liftgate will not operate to prevent the motor from overheating. If any of the power liftgate buttons are pressed to try to open the liftgate, the chime will sound 3 times, but the liftgate will remain closed. Allow the power liftgate system to cool for about 1 minute before operating the system again.**

Operating the power liftgate

Power liftgate open/close button (Smart key, Instrument panel)



ONX4E050144



ONX4050028

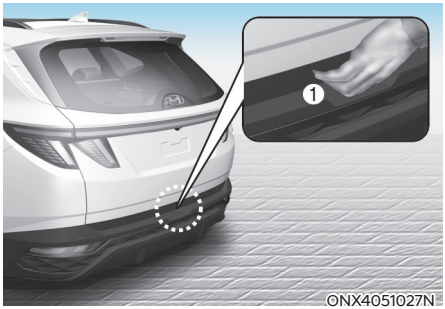
When the liftgate is closed, press the power liftgate open/close button for 1 second. The power liftgate opens with a warning sound.

While the liftgate is opening, press the button to stop liftgate operation.

When the power liftgate is opened, press and hold the power liftgate open/close button to close the liftgate. If you release the button while the liftgate is closing, power liftgate operation will stop with a warning sound for 5 seconds.

Also, if the smart key is not within operation range (approximately 10 m) from the vehicle, power liftgate operation will stop with a warning sound for 5 seconds.

Power liftgate open/close button (Outside the power liftgate)

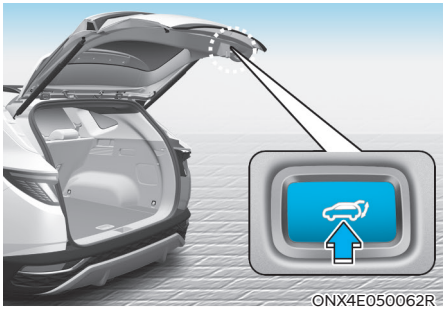


When the liftgate is closed, press the power liftgate open/close button to open the liftgate.

If the vehicle is locked, press the power liftgate open/close button with the smart key in your possession.

If the liftgate is unlocked, the liftgate will open or close with a warning sound when the power liftgate open/close button is pressed without carrying the smart key.

Power liftgate open/close button (Inside the power liftgate)



Press the power liftgate open/close button. The liftgate opens or closes with a warning sound.

Automatic reverse

During power liftgate operation if the power liftgate senses any obstacle, the liftgate will stop or will fully open. The automatic reverse feature may not operate properly, or it may operate unexpectedly under the following circumstances:

- The automatic reverse feature may not detect the resistance if the detected resistance is below a certain level, or if the liftgate is almost fully closed near the latched position.
- The automatic reverse feature may operate if a strong impact is applied with no obstructions placed.

WARNING

Never intentionally place any object or part of your body in the path of the power liftgate to make sure the automatic reverse feature operates. Serious injury, or damage to the vehicle or object may occur.

Information

The power liftgate may stop operating if the automatic reverse feature operates more than two times while attempting to open or close the liftgate. If this occurs, carefully open or close the liftgate manually, and then after 30 seconds try to operate the power liftgate automatically again.

Setting the power liftgate

To use each feature, you must select the opening speed or opening height from the settings menu. Deselect the settings when you do not want to use the feature.

Power liftgate opening speed

To adjust the power liftgate speed, select 'User Settings → Door/Liftgate → Power Liftgate Opening Speed → Fast/Slow' in the instrument cluster or 'Setup → Vehicle Settings → Door/Liftgate → Power Liftgate Opening Speed → Fast/Slow' in the infotainment system. (Default setting is 'Fast')

Power liftgate opening height

To adjust the power liftgate opening height, select 'User Settings → Door/Liftgate → Power Liftgate Opening Height → Full Open/Level 3/Level 2/Level 1/User Height Setting' in the instrument cluster or 'Setup → Vehicle Settings → Door/Liftgate → Power Liftgate Opening Height → Full Open/Level 3/Level 2/Level 1/User Height Setting' in the infotainment system.

The infotainment system may change after updates. For detailed information on system settings, See additional information in supplied Infotainment Manual.

User height setting

1. Position the liftgate manually to the height you prefer.
2. Press the power liftgate open/close button located inside the liftgate for more than 3 seconds.

   If 'User Height Setting' is selected for the power liftgate opening height, the power liftgate will automatically open to the height manually set by you.

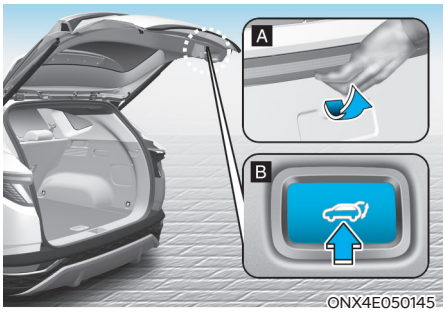
Information

- **If the power liftgate opening height has not been manually set, the power liftgate will fully open when 'User Height Setting' from the infotainment system is selected.**
- **If one of the height setting (Full Open/ Level 3/Level 2/Level 1) is selected from the settings menu in the infotainment system, and then 'User Height Setting' is selected, the liftgate will open to the height manually set by you.**
- **The power liftgate opening speed and opening height settings change according to the linked User Profile. If the User Profile is changed, power liftgate opening speed and opening height settings will change accordingly.**

Resetting the power liftgate

In some circumstances resetting the power liftgate operation may need to be performed. Some instances where resetting the power liftgate may be required include:

- When the 12-volt battery is recharged
- When the 12-volt battery is reinstalled after removal or replacement (for Plug-in Hybrid vehicle)
- When the related fuse is reinstalled after removal or replacement



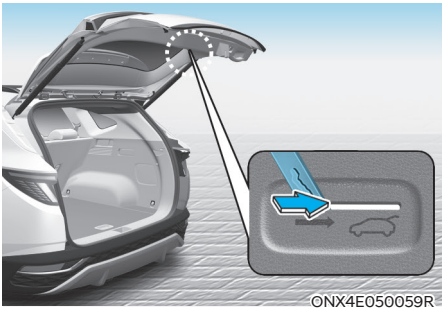
1. With the engine off or running, put the gear in P (Park).
2. Press the power liftgate open/close inner button (B) and outer button (A) simultaneously until a chime sounds.
3. Slowly close the liftgate manually.
4. Press the power liftgate open/close outer button. The power liftgate will open with a chime sound.

   Wait until the liftgate fully opens to complete resetting. If the liftgate stops before it is fully open, resetting cannot be completed.

Information

If the power liftgate does not operate properly after the above procedure, have the system inspected by an authorized HYUNDAI dealer.

Emergency liftgate safety release



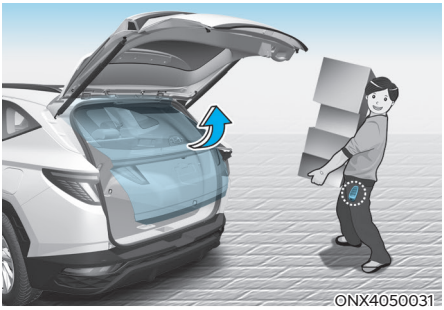
To unlock and open the liftgate manually from inside the luggage compartment, perform the following procedure:

1. Insert a long, flat object, such as a key into the opening at the bottom of the liftgate.
2. Slide the latch in the direction of the arrow to unlock the liftgate.
3. Push the liftgate to open.

WARNING

- **For emergencies, be fully aware of the location of the emergency liftgate safety release latch in the vehicle and how to open the liftgate if you are accidentally locked in the luggage compartment.**
- **No one, including animals, should be allowed to occupy the luggage compartment of the vehicle at any time. The luggage compartment is a very dangerous location in the event of an accident.**
- **Use the release latch for emergencies only. Use extreme caution, especially while the vehicle is in motion.**

Smart Liftgate (if equipped)



On a vehicle equipped with a smart key, the liftgate can be opened with hands-free activation using the smart liftgate system.

Using smart liftgate

The hands-free smart liftgate system can be opened automatically when the following conditions are met:

- The smart liftgate option is enabled in the Settings menu in the infotainment system screen.
- The smart liftgate is activated and ready 15 seconds after all the doors are closed and locked.
- The smart liftgate will open when the smart key is detected in the area behind the vehicle for 3 seconds.

Information

The smart liftgate will NOT operate when:

- **A door is not locked or closed.**
- **The smart key is detected within 15 seconds from when the doors were closed and locked.**
- **The smart key is detected within 15 seconds after the doors are closed and locked, and within 60 in. (150 cm) from the front door handles. (for vehicles equipped with Welcome Light).**
- **The smart key is in the vehicle.**

1. Settings

   To activate the Smart Liftgate, go to User Settings Mode and select Smart Liftgate on the cluster display.

2. Detect and Alert

   The smart liftgate detecting area extends approximately 20-40 in. (50-100 cm) behind the vehicle. If you are positioned in the detecting area and are carrying the smart key, the hazard warning lights will blink and the chime will sound to alert you that the smart liftgate will open.

Information

Do not approach the detecting area if you do not want the liftgate to open. If you have unintentionally entered the detecting area and the hazard warning lights and chime starts to operate, move away from the area behind the vehicle with the smart key. The liftgate will remain closed.

3. Automatic opening

   After the hazard warning lights blink and the chime sounds 6 times, the smart liftgate will open.

Deactivating smart liftgate

■ Type A



OTMA050009

■ Type B



OTMA050010

1. Door lock
2. Door unlock
3. Liftgate open/close (Power liftgate)

If you press any button on the smart key during the Detect and Alert stage, the smart liftgate will be deactivated.

Make sure to be aware of how to deactivate the smart liftgate for emergency situations.

- If you press the door unlock button (2), the smart liftgate will be deactivated temporarily. But, if you do not open any door for 30 seconds, the smart liftgate will be activated again.
- If you press the liftgate open button (3) for more than 1 second, the liftgate opens.
- The smart liftgate will still be activated if you press the door lock button (1) or liftgate open/close button (3) on the smart key as long as the smart liftgate is not already in the Detect and Alert stage.
- In case you have deactivated the smart liftgate by pressing the smart key button and opened a door, the smart liftgate can be activated again by closing and locking all doors.

Detecting area



ONX4050032

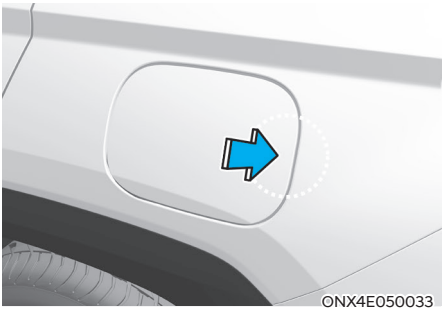
- The smart liftgate detecting area extends approximately 20-40 in. (50-100 cm) behind the vehicle. If you are positioned in the detecting area and are carrying the smart key, the hazard warning lights will blink and the chime will sound for about 3 seconds to alert you that the liftgate will open.
- The alert stops once the smart key is moved outside of the detecting area within the 3 second period.

Information

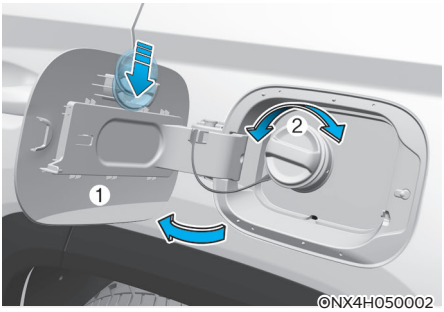
- **Smart liftgate may not operate properly if any of the following occur:**
  - **The smart key is close to a radio transmitter such as a radio station or an airport which can interfere with normal operation of the transmitter.**
  - **The smart key is near a mobile two way radio system or a mobile phone.**
  - **Another vehicle's smart key is being operated close to your vehicle.**
- **Smart liftgate detecting area may change when:**
  - **The vehicle is parked on an incline or slope.**
  - **One side of the vehicle is raised or lowered relative to the opposite side.**

Fuel Filler Door (Hybrid vehicle)

Opening the fuel filler door



1. Turn the engine off.
2. Ensure driver's door is unlocked.
3. Press the rear center edge of the fuel filler door.



4. Pull the fuel filler door (1) outward to access the fuel tank cap.
5. To remove the fuel tank cap (2), turn it counterclockwise. You may hear a hissing noise as the pressure inside the tank equalizes.
6. Place the cap on the fuel filler door.

Information

The fuel filler door will unlock when driver's door is unlocked.

To unlock fuel filler door:

- **Press the unlock button on your smart key**
- **Press the central door unlock button on armrest trim of driver's door**
- **Pull the driver's inside door handle outward**

  The fuel filler door will lock when driver's door is locked.

To lock fuel filler door:

- **Press the lock button on your smart key**
- **Press the Central Door lock button on armrest trim of driver's door**

✳ **All doors will automatically lock after the vehicle speed exceeds 9 mph. Fuel filler door is also locked when vehicle speed exceeds 9 mph.**

Information

If the fuel filler door does not open because ice has formed around it, tap lightly or push on the door to break the ice and release the door. Do not pry on the door. If necessary, spray around the door with an approved deicer fluid (do not use radiator antifreeze) or move the vehicle to a warm place and allow the ice to melt.

Closing the fuel filler door

1. To install the fuel tank cap, turn it clockwise until it “clicks” one time.
2. Close the fuel filler door until it is latched securely.

Information

To lock the fuel filler door, make sure the fuel filler door is completely closed. Press the LOCK button on the remote key or smart key to lock your vehicle. The fuel filler door will also lock.

Note that if the fuel filler door is not completely closed when the vehicle is locked, the fuel filler door will not be locked.

CAUTION

Make sure the fuel filler door is completely closed before driving through a car wash or operating a high pressure spray washer.

WARNING

Automotive fuel is highly flammable and explosive. Failure to follow these guidelines may result in SERIOUS INJURY or DEATH:

- **Read and follow all warnings posted at the gas station.**
- **Before refueling, note the location of the Emergency Fuel Shut-Off, if available, at the gas station.**
- **Before touching the fuel nozzle, you should eliminate the potential build-up of static electricity by touching a metal part of the vehicle, a safe distance away from the fuel filler neck, nozzle, or other gas source, with your bare hand.**
- **Do not use mobile phones while refueling. Electric current and/or electronic interference from cellular phones can potentially ignite fuel vapors and cause a fire.**
- **Do not get back into a vehicle once you have begun refueling. You can generate a buildup of static electricity by touching, rubbing or sliding against any item or fabric capable of producing static electricity. Static electricity discharge can ignite fuel vapors causing a fire. If you must re-enter the vehicle, you should once again eliminate potentially dangerous static electricity discharge by touching a metal part of the vehicle, away from the fuel filler neck, nozzle or other fuel source, with your bare hand.**
- **When using an approved portable fuel container, be sure to place the container on the ground prior to refueling. Static electricity discharge from the container can ignite fuel vapors causing a fire.**

  Once refueling has begun, contact between your bare hand and the vehicle should be maintained until the filling is complete.
- **Use only approved portable plastic fuel containers designed to carry and store fuel.**
- **When refueling, always shift the gear to the P (Park) position, set the parking brake, and press the Engine Start/Stop button to the OFF position. Sparks produced by electrical components related to the engine can ignite fuel vapors causing a fire.**
- **Do not use matches or a lighter and do not smoke or leave a lit cigarette in your vehicle while at a gas station, especially during refueling.**
- **Do not over-fill or top-off your vehicle tank, which can cause fuel spillage.**

- If a fire breaks out during refueling, leave the vicinity of the vehicle, and immediately contact the manager of the gas station and then contact the local fire department. Follow any safety instructions they provide.
- If pressurized fuel sprays out, it can cover your clothes or skin and thus subject you to the risk of fire and burns. Always remove the fuel cap carefully and slowly. If the cap is venting fuel or if you hear a hissing sound, wait until the condition stops before completely removing the cap.
- Always check that the fuel cap is installed securely to prevent fuel spillage in the event of an accident.

Information

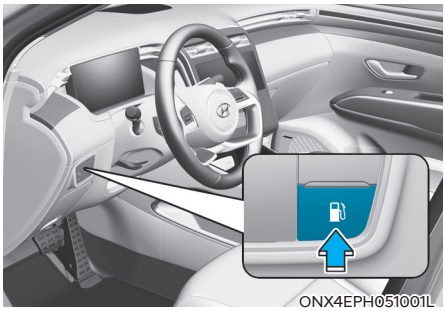
Make sure to refuel your vehicle according to the "Fuel Requirements" section in suggested in chapter 1.

NOTICE

- Do not spill fuel on the exterior surfaces of the vehicle. Any type of fuel spilled on painted surfaces may damage the paint.
- If the fuel filler cap requires replacement, use only a genuine HYUNDAI cap or the equivalent specified for your vehicle. An incorrect fuel filler cap can result in a serious malfunction of the fuel system or emission control system.

Fuel Filler Door (Plug-in hybrid vehicle)

Opening the fuel filler door



1. Turn the vehicle completely OFF. Do not leave the vehicle with the ignition in the ON position or with the engine running. Doing so may cause the check engine light to illuminate.
2. Push the fuel filler door open button.

NOTICE

If the fuel filler door does not open because ice has formed around it, tap lightly or push on the lid to break the ice and release the lid. Do not pry on the lid. If necessary, spray around the lid with an approved de-icer fluid (do not use radiator anti-freeze) or move the vehicle to a warm place and allow the ice to melt.



OAEPHQ049830L

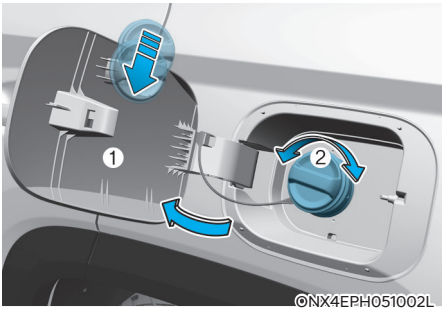
3. Wait until the fuel tank is depressurized. This message may appear in the cluster display while the fuel system is depressurizing. The fuel door will open after a few seconds.



OAEPHQ049832L

NOTICE

- **It may take up to 20 seconds to open fuel filler door.**
- **When the fuel filler door is frozen and does not open after 20 seconds at freezing temperature, slightly tap the fuel filler door and then attempt to open it.**



ONX4EPH051002L

4. Pull the fuel filler door (1) out to fully open.
5. To remove the fuel tank cap (2), turn it counterclockwise. You may hear a hissing noise as the pressure inside the tank equalizes.
6. Place the cap on the fuel filler door.

NOTICE

- **It may take up to 20 seconds to unlock fuel filler door.**
- **If the fuel filler door does not open because ice has formed around it, tap lightly or push on the door to break the ice and release the door.**
- **Do not pry on the door. If necessary, spray around the door with an approved de-icer fluid (do not use radiator anti-freeze) or move the vehicle to a warm place and allow the ice to melt.**

WARNING

- **Before refueling, be sure to check what type of fuel is used for your vehicle. If you put diesel fuel into a gasoline-powered vehicle or gasoline into a diesel-powered vehicle, it may affect the fuel system and cause serious damage to the vehicle.**
- **Add fuel into the fuel tank within 20 minutes after opening the fuel filler door. After 20 minutes, the fuel tank may shut off, causing fuel to overflow. In this case, re-press the fuel filler door opening button.**
- **Do not leave the fuel filler door opened for an extended period of time. It may discharge the battery.**
- **Close the fuel filler door after fueling the vehicle. If you start the vehicle with the fuel filler door opened, the message, "Check fuel door", illuminates on the cluster display.**
- **Avoid refueling the vehicle while charging the (high-voltage) hybrid battery. It may cause a fire or an explosion due to static electricity.**

Closing the fuel filler door

1. To install the cap, turn it clockwise until it "clicks" once. This indicates that the cap is securely tightened.
2. Close the fuel filler lid and push it in lightly making sure that it is securely closed.

WARNING

Automotive fuel is highly flammable and explosive. Failure to follow these guidelines may result in SERIOUS INJURY or DEATH:

- **Read and follow all warnings posted at the gas station.**
- **Before refueling, note the location of the Emergency Fuel Shut-Off, if available, at the gas station.**
- **Before touching the fuel nozzle, you should eliminate the potential build-up of static electricity by touching a metal part of the vehicle, a safe distance away from the fuel filler neck, nozzle, or other gas source, with your bare hand.**
- **Do not use mobile phones while refueling. Electric current and/or electronic interference from cellular phones can potentially ignite fuel vapors and cause a fire.**
- **Do not get back into a vehicle once you have begun refueling. You can generate a buildup of static electricity by touching, rubbing or sliding against any item or fabric capable of producing static electricity. Static electricity discharge can ignite fuel vapors causing a fire. If you must re-enter the vehicle, you should once again eliminate potentially dangerous static electricity discharge by touching a metal part of the vehicle, away from the fuel filler neck, nozzle or other fuel source, with your bare hand.**

- When using an approved portable fuel container, be sure to place the container on the ground prior to refueling. Static electricity discharge from the container can ignite fuel vapors causing a fire.

  Once refueling has begun, contact between your bare hand and the vehicle should be maintained until the filling is complete.
- Use only approved portable plastic fuel containers designed to carry and store fuel.
- When refueling, always shift the gear to the P (Park) position, set the parking brake, and press the Engine Start/Stop button to the OFF position. Sparks produced by electrical components related to the engine can ignite fuel vapors causing a fire.
- Do not use matches or a lighter and do not smoke or leave a lit cigarette in your vehicle while at a gas station, especially during refueling.
- Do not over-fill or top-off your vehicle tank, which can cause fuel spillage.
- If a fire breaks out during refueling, leave the vicinity of the vehicle, and immediately contact the manager of the gas station and then contact the local fire department. Follow any safety instructions they provide.
- If pressurized fuel sprays out, it can cover your clothes or skin and thus subject you to the risk of fire and burns. Always remove the fuel cap carefully and slowly. If the cap is venting fuel or if you hear a hissing sound, wait until the condition stops before completely removing the cap.
- Always check that the fuel cap is installed securely to prevent fuel spillage in the event of an accident.

Information

Make sure to refuel your vehicle according to the "Fuel Requirements" section in suggested in chapter 1.

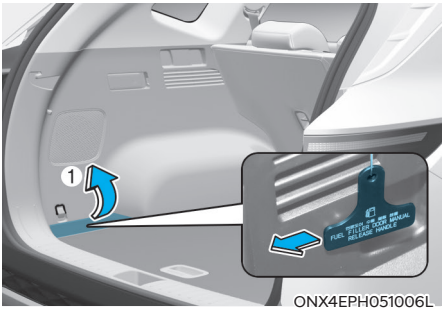
NOTICE

- Do not spill fuel on the exterior surfaces of the vehicle. Any type of fuel spilled on painted surfaces may damage the paint.
- If the fuel filler cap requires replacement, use only a genuine HYUNDAI cap or the equivalent specified for your vehicle. An incorrect fuel filler cap can result in a serious malfunction of the fuel system or emission control system.

WARNING

In case of using EV drive mode for a certain time without running engine, EMM (Engine Maintenance Mode) will automatically activate by the system to protect the fuel system and the engine. Therefore, even though if it is possible to use EV drive mode with enough battery power, the engine may run by the system to protect fuel system and the engine. If you leave the fuel without refueling or using for over 6 months, the remained fuel in the fuel system may be deteriorated. From this, corrosion or blocking problem may occur. It is recommended using minimum 40 % of remained fuel at least every 6 months by selecting Hybrid (CS)mode and refuel the vehicle with new fuel.

Emergency fuel filler door release



If the fuel filler door does not opendue to battery discharge and failure ofthe electrical wiring, follow the belowprocedure.

1. Open the tailgate and remove the sidetrim upper cover (1).
2. Pull the emergency handle lightlyin the direction of the arrow, the fuelfiller door will open.

If this occurs, open the fuel tank cap slowly for the fuel tank may be pressurized. If a hissing sound is heard, wait until the sound stops, Then, remove the fuel tank cap and refuel slowly. Refueling quickly may cause the fuel to overflow.

CAUTION

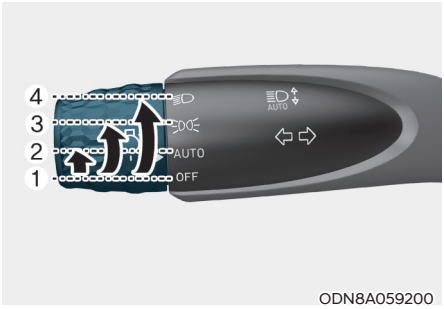
Do not pull the handle excessively, otherwise the luggage compartment area trim or release handle may be damaged.

LIGHTING

Exterior Lights

Lighting control

To operate the lights, turn the knob at the end of the control lever to one of the following positions:



ODN8A059200

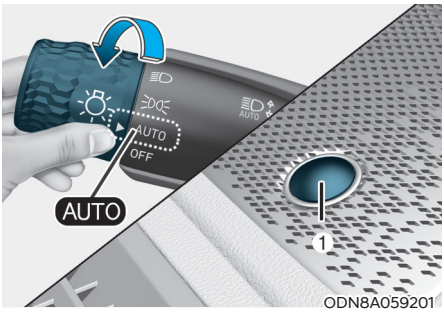
1. OFF
2. AUTO headlight
3. Position light
4. Headlight

Daytime Running Light (DRL)

The Daytime Running Lights (DRL) can make it easier for others to see the front of your vehicle during the day, especially after dawn and before sunset. The Daytime Running Lights (DRL) should be illuminated whenever you are driving during daylight hours. The DRL system will be ON when the headlight stalk is in the OFF or the AUTO Position (when daylight is detected) and the Electronic Parking Brake (EPB) is released.

The DRL system will turn off when:

- The headlights are ON.
- The parking brake is applied.
- The vehicle is turned off.



ODN8A059201

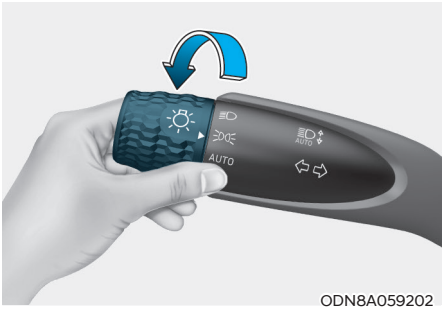
AUTO headlight

The position lamp and headlight will be turned ON or OFF automatically depending on the amount of daylight as measured by the ambient light sensor (1) at the upper end of the windshield glass.

Even with the AUTO headlight feature in operation, it is recommended to manually turn ON the headlights when driving at night or in a fog, driving in the rain, or when you enter dark areas, such as tunnels and parking facilities.

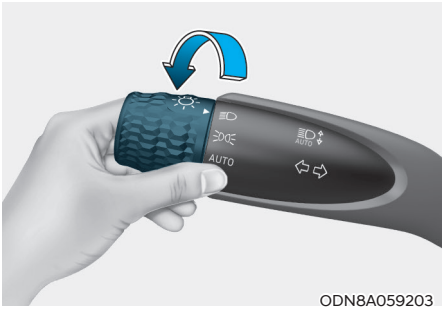
NOTICE

- **Do not cover or spill anything on the sensor (1) located at the upper end of the windshield glass.**
- **Do not clean the sensor using a window cleaner, the cleanser may leave a light film which could interfere with sensor operation.**
- **If your vehicle has window tint or other types of metallic coating on the front windshield, the AUTO headlight system may not work properly.**



Position light (≡D)

The position light, license plate light and instrument cluster light are turned ON.



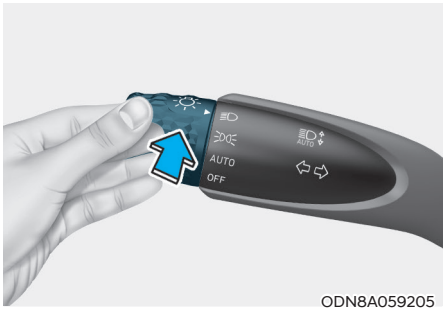
Headlight (≡D)

The headlight, position light, license plate light and instrument cluster light are turned ON.

Information

The ignition switch must be in the ON position to turn on the headlight.

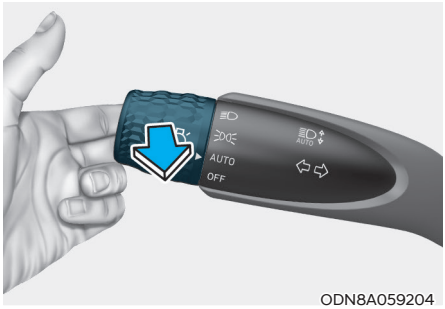
High beam operation



To turn on the high beam headlight, push the lever away from you. The lever will return to its original position.

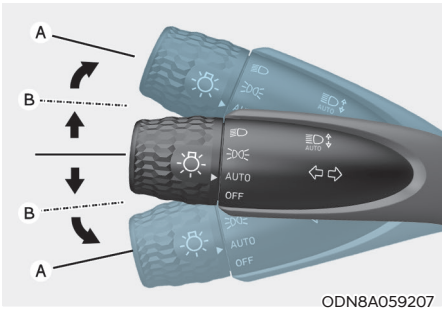
The high beam indicator will light when the headlight high beams are switched on.

To turn off the high beam headlight, pull the lever towards you. The low beams will turn on.



To flash the high beam headlight, pull the lever towards you, then release the lever. The high beams will remain ON as long as you hold the lever towards you.

Turn signals and lane change signals



To signal a turn, push down on the lever for a left turn or up for a right turn in position (A).

If an indicator stays on and does not flash or if it flashes abnormally, one of the turn signal bulbs may be burned out and will require replacement.

One touch turn signal

To use One Touch Turn Signal push the turn signal lever up or down to position (B) and then release it.

The lane change signals will blink 3, 5 or 7 times.

You can enable the One Touch Turn Signal function or choose the number of blinking by selecting 'Setup → User Settings → Lights → One Touch Turn Signal → Off/3 flashes/5 flashes/7 flashes' in the instrument panel cluster display.

Battery saver function

The purpose of this feature is to prevent the battery from being discharged. The system automatically turns off the position lamp when the driver turns the vehicle off and opens the driver-side door.

With this feature, the position lamps will turn off automatically if the driver parks on the side of road at night.

If necessary, to keep the lamps on when the vehicle is turned off, perform the following:

However, the position lamps stay ON even when the driver-side door is opened if the headlight switch is turned to the position lamp or AUTO (if equipped) position after the engine is turned off.

If necessary, to keep the lamps on turn the position lamps OFF and ON again using the headlight switch on the steering column after the engine is turned off.

Headlight delay function

If you place the ignition switch to the ACC position or the OFF position with the headlights ON, the headlights (and/or position lamps) remain on for about 5 minutes. However, if the driver's door is opened and closed, the headlights are turned off after 15 seconds. Also, with the vehicle off if the driver's door is opened and closed, the headlights (and/or position lamps) are turned off after 15 seconds.

The headlights (and/or position lamps) can be turned off by pressing the lock button on the smart key twice or turning the headlight switch to the OFF or AUTO position.

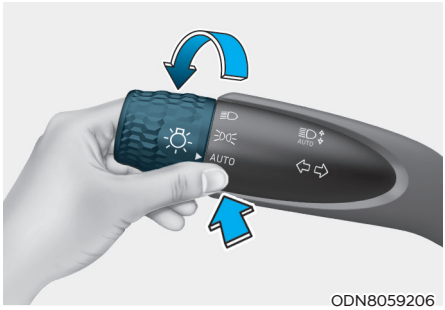
You can enable the headlight delay function by selecting 'Setup → User Settings → Lights → Headlight Delay.

NOTICE

If the driver exits the vehicle through another door besides the driver door, the battery saver function does not operate and the headlight delay function does not turn OFF automatically.

This may cause the battery to discharge. To avoid battery discharge, turn OFF the headlights manually from the headlight switch before exiting the vehicle.

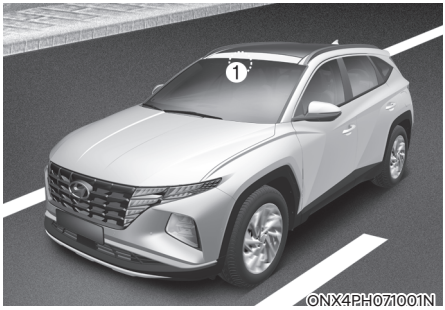
HIGH BEAM ASSIST (HBA)



ODN8059206

High Beam Assist automatically controls the headlights between high beam and low beam depending on the detected ambient light, such as an oncoming vehicle or leading vehicle.

Detecting sensor



[1] : Front view camera

The front view camera is used as a detecting sensor to detect ambient light and brightness while driving.

Refer to the picture above for the detailed location of the detecting sensor.

NOTICE

Always keep the front view camera in good condition to maintain optimal performance of High Beam Assist.

For more details on the precautions of the front view camera, refer to "Forward Collision-Avoidance Assist (FCA)" section in chapter 7.

High Beam Assist Settings

With the engine on, select 'Lights → High Beam Assist' from the Settings menu to turn on High Beam Assist and deselect to turn off the function.

WARNING

For your safety, change the Settings after parking the vehicle at a safe location.

High Beam Assist Operation

Display and control

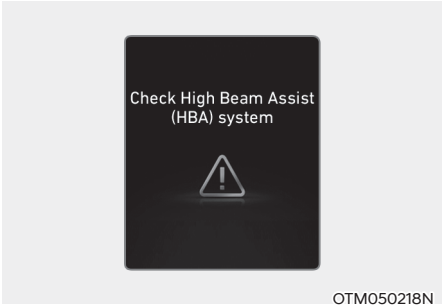
- After selecting 'High Beam Assist' in the Settings menu, High Beam Assist will operate by following the procedure below.
  - Place the headlight switch in the AUTO position and push the headlight lever towards the instrument cluster. The High Beam Assist (AUTO) indicator light will illuminate on the cluster and the function will be enabled.
  - When the function is enabled, high beam will turn on when vehicle speed is above 25 mph (40 km/h). When vehicle speed is below 15 mph (25 km/h), high beam will not turn on.
  - The High Beam indicator light will illuminate on the cluster when high beam is on.
- When High Beam Assist is operating, if the headlight lever or switch is used, the function operates as follow:
  - If the headlight lever is pulled towards you when the high beam is off, the high beam will turn on without High Beam Assist canceled. When you let go of the headlight lever, the lever will move to the middle and the high beam will turn off.
  - If the headlight lever is pulled towards you when the high beam is on by High Beam Assist, low beam will be on and the function will turn off.
  - If the headlight switch is placed from AUTO to another position (headlight/position/off), High Beam Assist will turn off and the corresponding lamp will turn on.
- When High Beam Assist is operating, high beam switches to low beam if any of the following conditions occur:
  - When the headlight of an oncoming vehicle is detected.
  - When the tail lamp of a vehicle in front is detected.
  - When the headlight or tail lamp of a motorcycle or a bicycle is detected.
  - When the surrounding ambient light is bright enough that high beams are not required.
  - When streetlights or other lights are detected.

Information

The images and colors in the cluster may differ depending on the cluster type or theme selected from the cluster.

High Beam Assist Malfunction and Limitations

High Beam Assist malfunction



OTM050218N

When High Beam Assist is not working properly, the 'Check High Beam Assist (HBA) system' warning message will appear and ⚠ warning light will illuminate on the cluster. Have the function inspected by an authorized HYUNDAI dealer.

Limitations of High Beam Assist

High Beam Assist may not work properly in the following situations:

- Light from an oncoming or front vehicle is not detected because of lamp damage, or because it is hidden from sight, etc.
- Head lamp of an oncoming or front vehicle is covered with dust, snow or water.
- An oncoming or front vehicle's headlights are off but the fog lamps are on, etc.
- There is a lamp that has a similar shape as a vehicle's lamp.
- Headlights have been damaged or not repaired properly.
- Headlights are not aimed properly.
- Driving on a narrow curved road, curved road, rough road, uphill or downhill.
- Vehicle in front is partially visible on a crossroad or curved road.
- There is a traffic light, reflecting sign, flashing sign or mirror ahead.
- There is a temporary reflector or flash ahead (construction area).
- The road conditions are bad such as being wet, iced or covered with snow.
- A vehicle suddenly appears from a curve.
- The vehicle is tilted from a flat tire or is being towed.
- Light from a vehicle is not detected because of exhaust fume, smoke, fog, snow, etc.

For more details on the limitations of the front view camera, refer to "Forward Collision-Avoidance Assist (FCA)" section in chapter 7.

⚠ WARNING

- **At times, High Beam Assist may not work properly. It is the responsibility of the driver for safe driving practices and always check the road conditions for your safety.**
- **When High Beam Assist does not operate normally, change the headlight position manually between high beam and low beam.**

INTERIOR LIGHTS

WARNING

Do not use the interior lights when driving in the dark. The interior lights may obscure your view and cause an accident.

NOTICE

Do not use the interior lights for extended periods when the vehicle is turned off or the battery will discharge.

Interior Lamp AUTO OFF

The interior lamps will automatically go off approximately 10 minutes after the vehicle is turned off and the doors are closed. If a door is opened, the lamp will go off 40 minutes after the vehicle is turned off. If the doors are locked by the smart key and the vehicle enters the armed stage of the theft alarm system, the lamps will go off five seconds later.

Front lamps



Front room lamp (1) :

Press the button to turn ON the room lamp for the front/rear seats.

Front Door Lamp (2) ():

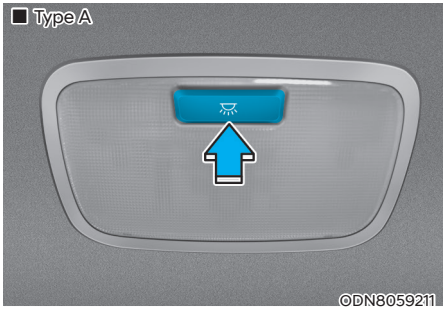
The front or rear room lamps come on when the front or rear doors are opened if the engine is running or not. When doors are unlocked by the remote key or smart key, the front and rear lamps come on for approximately 30 seconds as long as any door is not opened. The front and rear room lamps go out gradually after approximately 30 seconds when the door is closed. However, if the Engine Start/Stop button is in the ON position or all doors are locked, the front and rear lamps will turn off. If a door is opened with the Engine Start/Stop button in the ACC position or the OFF position, the front and rear lamps stay on for about 20 minutes.

Front Map Lamp (3):

Press either lenses to turn the map lamp on or off. This light produces a spot beam for convenient use as a map lamp at night or as a personal lamp for the driver and the front passenger.

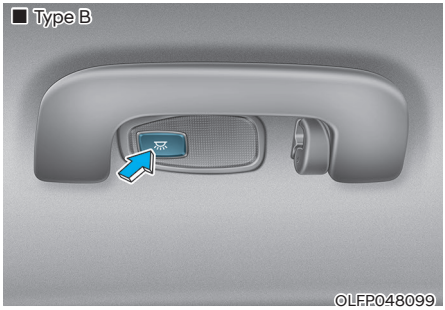
Rear Lamps

■ Type A



ODN8059211

■ Type B

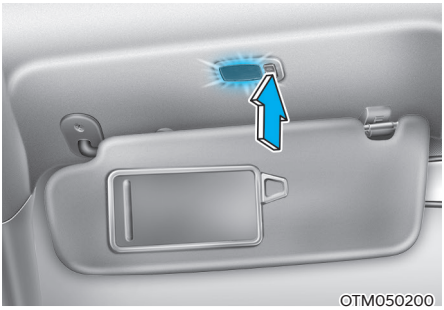


OLFP048099

Rear room lamp switch :

Press this button to turn the room lamp on and off.

Vanity Mirror Lamp

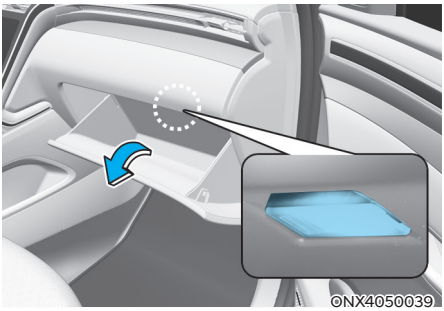


OTM050200

Push the switch to turn the light on or off.

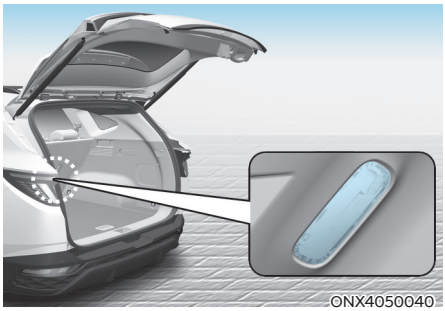
- : The lamp will turn on if this button is pressed.
- O : The lamp will turn off if this button is pressed.

Glove Box Lamp



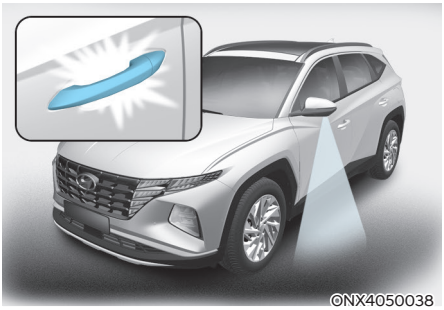
The glove box lamp turns on when the glove box is opened.

Luggage Compartment Lamp



- OFF : The luggage compartment lamp is off.
- ON : The luggage compartment lamp stays on at all times.
  - It turns on while the liftgate is opened, and turns off while closed. It turns on if the Engine Start/Stop button is in OFF position while the liftgate opened, the lamp stays on for about 10 minutes before turns off.

Welcome System



The welcome system will illuminate the vehicle door handles when the driver approaches with the smart key.

Door handle lamp

When all the doors (and liftgate) are closed and locked, the door handle lamp will turn on for approximately 15 seconds if any of the below is performed.

1. If 'Convenience → Welcome mirror/ light → On door unlock' is selected in the User Settings mode on the cluster display,
   - the lamps will turn on when the door lock button is pressed on the smart key.
   - the lamps will turn on when the button of the outside door handle is pressed with the smart key in possession.
2. If both 'Convenience → Welcome mirror/light → On door unlock' and 'Convenience → Welcome mirror/light → On driver approach' is selected in the User Settings mode on the cluster display, the lamps will turn on when the vehicle is approached with the smart key in possession.

You can activate or deactivate Welcome Light function from the User Settings mode on the cluster display.

Headlight and position lamp

When the headlight (lamp switch in the headlight or AUTO position) is on and all doors (and liftgate) are locked and closed, the position lamp and headlight will come on for 15 seconds when the door unlock button is pressed on the smart key.

At this time, if you press the door lock or unlock button, the position lamp and headlight will turn off immediately.

Interior lamp

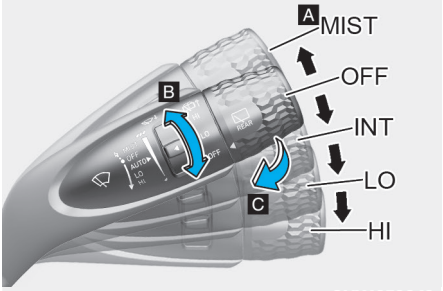
When the interior lamp switch is in the position and all doors (and liftgate) are closed and locked, the room lamp will come on for 30 seconds if any of the below is performed.

- When the door unlock button is pressed on the smart key.
- When you put your hand in the outside door handle while carrying the smart key.

At this time, if you press the door lock or unlock button on the smart key the lamps will turn off immediately.

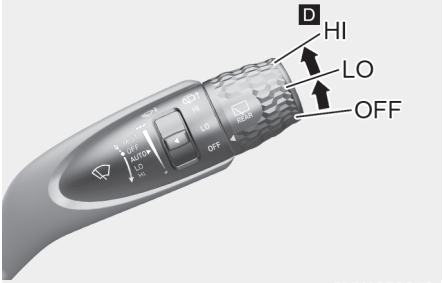
WIPERS AND WASHERS

■ Front windshield wiper/washer



ONX4050042

■ Rear windshield wiper/washer



ONX4050043

A. Wiper speed control (front)
- MIST – Single wipe
- OFF – Off
- INT – Intermittent wipe
  AUTO* – Auto control wipe
- LO– Low wiper speed
- HI – High wiper speed

B. Intermittent control wipe time adjustment

C. Wash with brief wipes (front)

D. Rear wiper control*
- HI – High wiper speed
- LO– Low wiper speed
- OFF – Off

E. Wash with brief wipes (rear)

* : if equipped

Windshield Wipers

Operates as follows when the ignition switch is turned ON.

MIST: For a single wiping cycle, move the lever down (V) or up (MIST) and release it. The wipers will operate continuously if the lever is held in this position.

OFF : Wipers are not in operation.

INT : Wipers operate intermittently at the same wiping intervals. Use this mode in light rain or mist. To vary the speed setting, turn the speed control knob.

LO : The wiper runs at a lower speed.

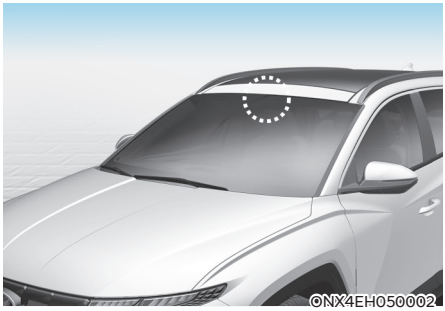
HI : The wiper runs at a higher speed.

Information

If there is heavy accumulation of snow or ice on the windshield, defrost the windshield for about 10 minutes, or until the snow and/or ice is removed before using the windshield wipers to ensure proper operation.

If you do not remove the snow and/or ice before using the wiper and washer, it may damage the wiper and washer system.

AUTO Wiper Control (if equipped)



The rain sensor located on the upper end of the windshield glass senses the amount of rainfall and controls the wiping cycle for the proper interval.

The wiper operation time will be automatically controlled depends on rainfall.

When the rain stops, the wiper stops.

To vary the sensitivity setting, turn the sensitivity control knob.

If the wiper switch is set in AUTO mode when the Engine Start/Stop button is in the ON position, the wiper will operate once to perform a self-check of the system. Set the wiper to the OFF position when the wiper is not in use.

WARNING

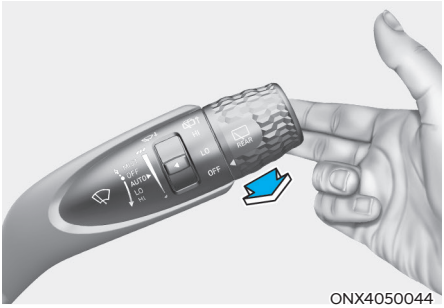
To avoid personal injury from the windshield wipers, when the engine is running and the windshield wiper switch is placed in the AUTO mode:

- **Do not touch the upper end of the windshield glass facing the rain sensor.**
- **Do not wipe the upper end of the windshield glass with a damp or wet cloth.**
- **Do not put pressure on the windshield glass.**

NOTICE

- **When washing the vehicle, set the wiper switch in the OFF position to stop the auto wiper operation. The wiper may operate and be damaged if the switch is set in the AUTO mode while washing the vehicle.**
- **Do not remove the sensor cover located on the upper end of the passenger side windshield glass. Damage to system components could occur and may not be covered by your vehicle warranty.**
- **Because of using a photo sensor, temporary malfunction could occur according to sudden ambient light change made by stone and dust while driving.**

Front Windshield Washers



ONX4050044

In the OFF position, pull the lever gently toward you to spray washer fluid on the windshield and to run the wipers 1-3 cycles. The spray and wiper operation will continue until you release the lever. If the washer does not work, you may need to add washer fluid to the washer fluid reservoir.

Recirculating air when washer fluid is used

When washer fluid is used, in order to reduce any unpleasant scent of the washer fluid from entering the cabin, recirculation mode and air conditioning are automatically activated depending on the outside temperature. If you select fresh mode while the function is operating, the function will resume after a certain amount of time. It may not work in some conditions such as cold weather or engine OFF.

For more details, refer to “Climate Control Additional Features” section in this chapter.

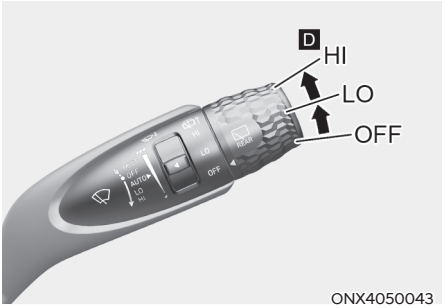
WARNING

When the outside temperature is below freezing, ALWAYS warm the windshield using the defroster to help prevent the washer fluid from freezing on the windshield and obscuring your vision which could result in an accident and serious injury or death.

NOTICE

- **To prevent possible damage to the washer pump, do not operate the washer when the fluid reservoir is empty.**
- **To prevent possible damage to the wipers or windshield, do not operate the wipers when the windshield is dry.**
- **To prevent damage to the wiper arms and other components, do not attempt to move the wipers manually.**
- **To prevent possible damage to the wipers and washer system, use anti-freezing washer fluids in the winter season or cold weather.**

Rear Window Wiper and Washer



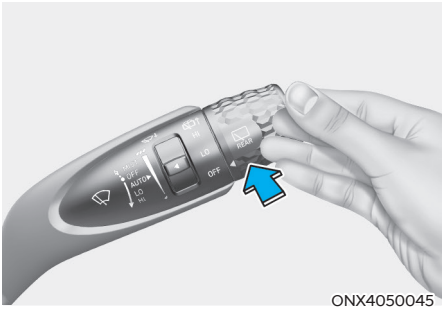
ONX4050043

The rear window wiper and washer switch is located at the end of the wiper and washer switch lever. Turn the switch to the desired position to operate the rear wiper and washer.

HI – High wiper speed

LO – Low wiper speed

OFF – Off



ONX4050045

Push the lever away from you to spray rear washer fluid and to run the rear wipers 1~3 cycles. The spray and wiper operation will continue until you release the lever.

Auto rear wiper (if equipped)

The rear wiper will operate while the vehicle is in reverse with the front wiper ON by selecting the function from the Settings menu on the cluster display. Select:

- Setup → User Settings → Convenience → Auto Rear Wiper (in R)

AUTOMATIC CLIMATE CONTROL SYSTEM

■ Type A



■ Type B



The actual shape of air conditioner may differ from the illustration.

ONX4H050102N/ONX4H050103N

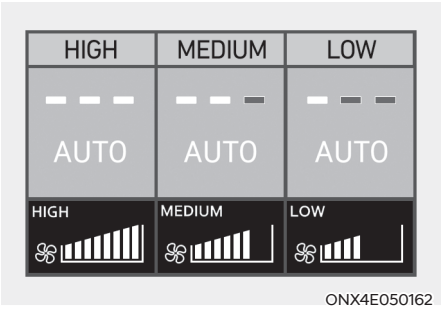
1. Driver's temperature control button/ toggle switch
2. Passenger's temperature control button/toggle switch
3. AUTO (automatic control) button
4. Air intake control button
5. OFF button
6. Front windshield defroster button
7. A/C (air conditioning) button
8. Fan speed control button
9. Mode selection button
10. Multi Air Mode button
11. Rear window defroster button
12. SYNC button
13. Climate control information screen
14. Driver only button

Automatic Heating and Air Conditioning

The Automatic Climate Control System is controlled by setting the desired temperature.

1. Press the AUTO button. (3)

   The modes, fan speeds, air intake and air-conditioning will be controlled automatically by the temperature setting you select.



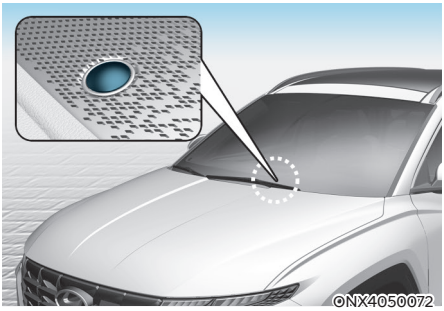
ONX4E050162

You can control the fan speed in three stages by pushing the AUTO button during automatic operation.

- HIGH : Provide rapid air conditioning and heating with maximum fan speed setting
- MEDIUM : Provide air conditioning and heating with mid-level fan speed setting
- LOW : Fan speed is set to the lowest setting range (1 to 3 bars range)

2. Turn the temperature control Button/knob (1, 2) to the desired temperature. If the temperature is set to the lowest setting (Lo), the air conditioning system will operate continuously. After the interior has cooled sufficiently, adjust the knob to a higher temperature set point whenever possible.

- To turn the automatic operation off, select any button of the following:
  - Mode selection button
  - Front windshield defroster button (Press the button one more time to deselect the front windshield defroster function. The 'AUTO' sign will illuminate on the information display once again.)
  - Fan speed control button
  - The selected function will be controlled manually while other functions operate automatically.
- For your convenience and to improve the effectiveness of the climate control, use the AUTO button and set the temperature to 72°F (22°C).



Information

Never place anything near the sensor to ensure better control of the heating and cooling system.

Manual Heating and Air Conditioning

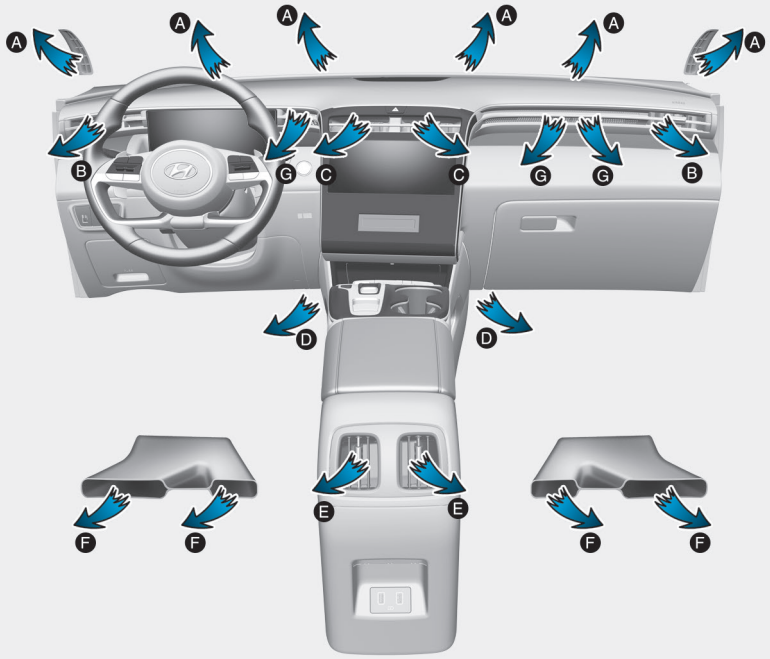
The heating and cooling system can be controlled manually by pushing buttons other than the AUTO button. In this case, the system works sequentially according to the order of buttons selected. When pressing any button except the AUTO button while using automatic operation, the functions not selected will be controlled automatically.

1. Start the engine.
2. Set the mode to the desired position. For improving the effectiveness of heating and cooling, select:
   - Heating:
   - Cooling:
3. Set the temperature control to the desired position.
4. Set the air intake control to the outside (fresh) air position.
5. Set the fan speed control to the desired speed.
6. If air conditioning is desired, turn the air conditioning system on.
7. Press the AUTO button to convert to full automatic control of the system.

When starting the vehicle in cold weather using manual temperature control, operate the system in the following method to improve heating.

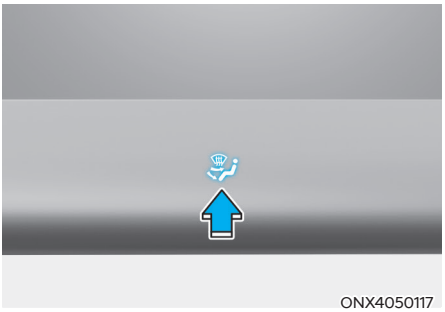
- Turn off or lower the blower, right after starting the engine.
  - Allow the engine to warm up during this time since the air flow from the heater is still cold.
- After a few minutes of engine warm up, turn on or set the fan to a higher level and adjust the temperature setting to hot.

Mode selection



The actual shape of air conditioner may differ from the illustration.

ONX4050118


ONX4050117

The mode selection button controls the direction of the air flow through the ventilation system.

The air flow outlet direction is cycled as follows:



Face-Level (B, C, E)

Air flow is directed toward the upper body and face. Additionally, each outlet can be controlled to direct the air discharged from the outlet.

Bi-Level (B, C, D, E, F)

Air flow is directed towards the face and the floor.

Floor-Level (A, B, D, E, F)

Most of the air flow is directed to the floor, with a small amount of the air being directed to the windshield and side window defrosters.

Floor/Defrost-Level (A, B, D, E, F)

Most of the air flow is directed to the floor and the windshield with a small amount directed to the side window defrosters.

Multi air mode (B, C, D, E, F, G)

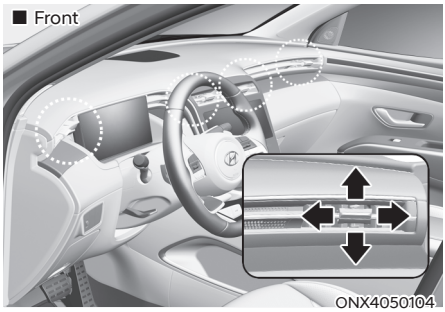
DIFFUSE

Gentle breezes come out the outlet vents.

Defrost-Level (A, B)

FRONT

Most of the air flow is directed to the windshield with a small amount of air directed to the side window defrosters.





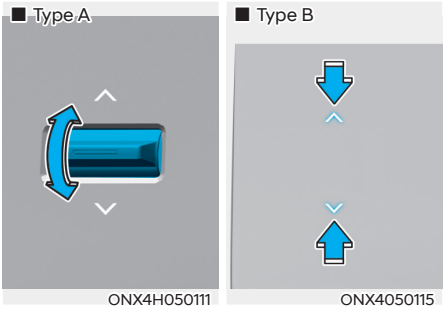
Instrument panel vents

The instrument panel vent air flow can be directed up/down or left/right using the vent adjustment lever.

The air flow can also be CLOSED using the vent adjustment lever.

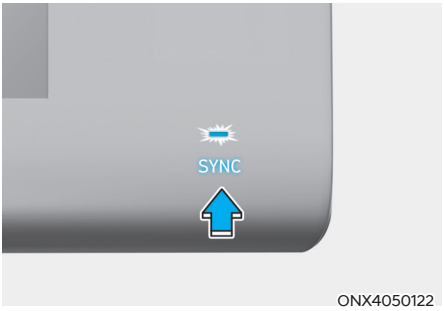
Move the lever to ⊗ position to close, and to ≋ position to open. However, the third row air vent cannot be closed.

Temperature control



The temperature setting will increase when you toggle up or touch the UP arrow on the touchscreen (if equipped).

The temperature setting will decrease when you toggle down or touch the DOWN arrow on the touchscreen (if equipped).



Adjusting the driver and passenger side temperature equally

- Press the SYNC button (indicator light ON) to adjust the driver and passenger side temperature equally.

  The passenger side temperature will be set to the same temperature as the driver side temperature.
- Turn the driver side temperature control knob. The driver and passenger side temperature will be adjusted equally.

Adjusting the driver and passenger side temperature individually

- Press the SYNC button (indicator light OFF) again to adjust the driver and passenger side temperature individually.

Temperature conversion

If the battery terminal (For plug-in hybrid vehicle) or battery connector (For hybrid vehicle) has been discharged or disconnected, the temperature mode display will reset to Fahrenheit.

To change the temperature unit from °C to °F or °F to °C :

- Instrument cluster or infotainment system screen

  Go to Setup → Unit → Temperature unit.

The temperature unit on both the cluster LCD display and the climate control screen will change.

Air intake control

This is used to select the outside (fresh) air position or recirculated air position.

To change the air intake control position, push the control button.

Recirculated air position



With the recirculated air position selected, air from the passenger compartment will be drawn through the heating system and heated or cooled according to the function selected.

Outside (fresh) air position



With the outside (fresh) air position selected, air enters the vehicle from outside and is heated or cooled according to the function selected.

Information

Using the system in the fresh air position is recommended.

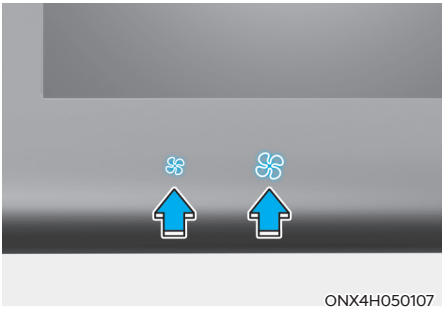
Prolonged operation of the heater in the recirculated air position (without air conditioning selected) can cause fogging of the windshield and side windows and the air within the passenger compartment will become stale.

In addition, prolonged use of the air conditioning with the recirculated air position selected will result in excessively dry air in the passenger compartment.

WARNING

- **Continued climate control system operation in the recirculated air position may allow humidity to increase inside the vehicle which may fog the glass and obscure visibility.**
- **Do not sleep in a vehicle with the air conditioning or heating system on. It may cause serious harm or death due to a drop in the oxygen level and/or body temperature.**
- **Continued climate control system operation in the recirculated air position can cause drowsiness or sleepiness, and loss of vehicle control. Set the air intake control to the outside (fresh) air position as much as possible while driving.**

Fan speed control



ONX4H050107

The fan speed can be set as desired by pushing the fan speed control button.

Increased air flow is delivered with higher fan speeds.

Pressing the OFF button turns off the fan.

NOTICE

Operating the fan when the ignition switch is in the ON position could cause the battery to discharge. Operate the fan when the engine is running.

Air conditioning

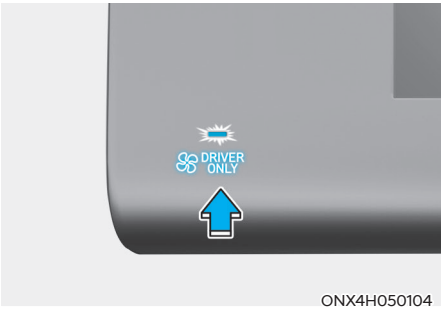
Push the A/C button to turn the air conditioning system on (indicator light will illuminate).

Push the button again to turn the air conditioning system off.

OFF mode

Push the OFF button to turn the climate control system off. However, you can still operate the mode and air intake buttons as long as the ignition switch is in the ON position.

Driver Only



ONX4H050104

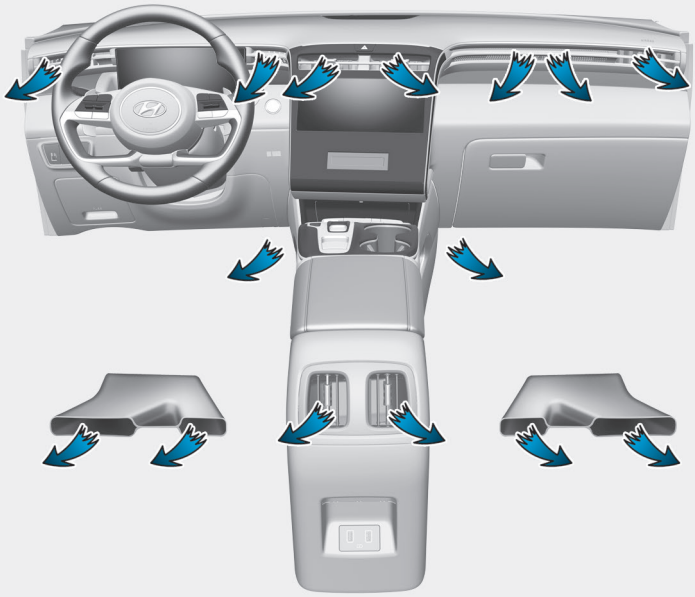
If you press the DRIVER ONLY button and the indicator light illuminates, air mostly blows in the direction of the driver's seat.

However, some of the air may come out of other seating position ducts to keep indoor air pleasant.

Using the DRIVER ONLY button is a convenient feature when there are no other passengers in the vehicle and helps to reduce energy consumption from the climate control system.

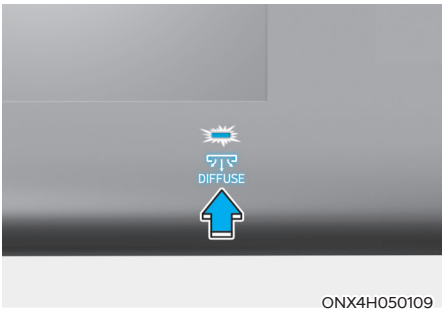
When the front windshield defroster button is pressed to remove frost, air blows from the left and right sides of the front windshield even if the DRIVER ONLY button has been pressed.

Multi Air Mode (if equipped)



The actual shape of air conditioner may differ from the illustration.

ONX4050129



ONX4H050109

When the Multi-Air mode button is pressed, air flow is directed to the face level and floor level and through perforated sections along the instrument panel for the driver and passenger. The multi-air mode LED indicator will be illuminated.

If the multi air mode button is pressed when the air volume is beyond level 4, it decreases to Level 3.

OFF

If you press the multi-air button again, the indicator will turn OFF and the directed air flow will be according to the previous setting before multi-air mode was enabled.

If you press the MODE selection button, the airflow will change based on the MODE selected.

System Operation

Ventilation

1. Set the mode to the position.
2. Set the air intake control to the outside (fresh) air position.
3. Set the temperature control to the desired position.
4. Set the fan speed control to the desired speed.

Heating

1. Set the mode to the position.
2. Set the air intake control to the outside (fresh) air position.
3. Set the temperature control to the desired position.
4. Set the fan speed control to the desired speed.
5. If dehumidified heating is desired, turn the air conditioning system on.

If the windshield fogs up, set the mode to the or position.

Operation Tips

- To keep dust or unpleasant fumes from entering the vehicle through the ventilation system, temporarily set the air intake control to the recirculated air position. Be sure to return the control to the fresh air position when the irritation has passed to keep fresh air in the vehicle. This will help keep the driver alert and comfortable.
- To prevent interior fog on the windshield, set the air intake control to the fresh air position and fan speed to the desired position, turn on the air conditioning system, and adjust the temperature control to the desired temperature.

Air conditioning

HYUNDAI Air Conditioning Systems are filled with R-1234yf refrigerant.

1. Start the engine. Push the air conditioning button.
2. Set the mode to the position.
3. Set the air intake control to the outside air or recirculated air position.
4. Adjust the fan speed control and temperature control to maintain maximum comfort.

NOTICE

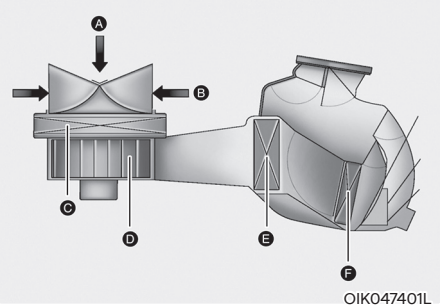
When using the air conditioning system, monitor the temperature gauge closely while driving up hills or in heavy traffic when outside temperatures are high. Air conditioning system operation may cause engine overheating. Continue to use the fan but turn the air conditioning system off if the temperature gauge indicates engine overheating.

Air conditioning system operation tips

- If the vehicle has been parked in direct sunlight during hot weather, open the windows for a short time to let the hot air inside the vehicle escape.
- After sufficient cooling has been achieved, switch back from the recirculated air to the fresh outside air position.
- To help reduce moisture inside of the windows on rainy or humid days, decrease the humidity inside the vehicle by operating the air conditioning system with the windows and sunroof closed.
- Use the air conditioning system every month for a few minutes to ensure maximum system performance.
- If you operate the air conditioner excessively, the difference between the temperature of the outside air and that of the windshield could cause the outer surface of the windshield to fog up, causing loss of visibility. In this case, set the mode selection button to the position and set the fan speed control knob to the lowest speed setting.

System Maintenance

Cabin air filter



OIK047401L

[A] : Outside air, [B] : Recirculated air
[C] : Cabin air filter, [D] : Blower
[E] : Evaporator core, [F] : Heater core

The cabin air filter is installed behind the glove box. It filters the dust or other pollutants that enter the vehicle through the heating and air conditioning system.

Have the cabin air filter replaced by an authorized HYUNDAI dealer according to the maintenance schedule. If the vehicle is being driven in severe conditions such as dusty or rough roads, more frequent climate control filter inspections and changes are required.

If the air flow rate suddenly decreases, the system should be checked at an authorized HYUNDAI dealer.

Air Conditioning Performance and Maintenance at Your HYUNDAI Dealer

When the amount of refrigerant is low, the performance of the air conditioning is reduced. Overfilling also reduces the performance of the air conditioning system.

Therefore, if abnormal operation is found, have the system inspected by an authorized HYUNDAI dealer.

NOTICE

It is important that the correct type and amount of oil and refrigerant is used. Otherwise, damage to the compressor and abnormal system operation may occur. To prevent damage, the air conditioning system in your vehicle should only be serviced by trained and certified technicians.

NOTICE

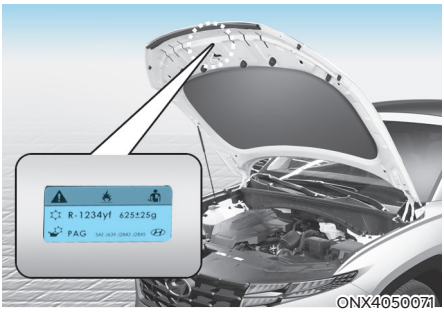
- **The refrigerant system should only be serviced by trained and certified technicians to insure proper and safe operation.**
- **The refrigerant system should be serviced in a well-ventilated place.**
- **The air conditioning evaporator (cooling coil) shall never be repaired or replaced with one removed from a used or salvaged vehicle and new replacement MAC evaporators shall be certified (and labeled) as meeting SAE Standard J2842.**

WARNING

Vehicles equipped with R-1234yf

Since the refrigerant is mildly flammable and operated at high pressure, the air conditioning system should only be serviced by trained and certified technicians. It is important that the correct type and amount of oil and refrigerant are used.

All refrigerants should be reclaimed with proper equipment.
Venting refrigerants directly to the atmosphere is harmful to individuals and environment. Failure to heed these warnings can lead to serious injuries.



Air Conditioning refrigerant label

You can find out which air conditioning refrigerant is applied to your vehicle on the label located inside of the hood.

■ Example



OTMH090024

Each symbol and specification on the air conditioning refrigerant label is represented as below:

1. Classification of refrigerant
2. Amount of refrigerant
3. Classification of compressor lubricant
4. Caution
5. Flammable refrigerant
6. To require registered technician to service air conditioning system

WINDSHIELD DEFROSTING AND DEFOGGING

WARNING

Windshield heating

Do not use the position during cooling operation in extremely humid weather. The difference between the temperature of the outside air and that of the windshield could cause the outer surface of the windshield to fog up, causing loss of visibility could cause an accident resulting in serious injury or death. In this case, set the mode selection button to the position and fan speed control knob to a lower speed.

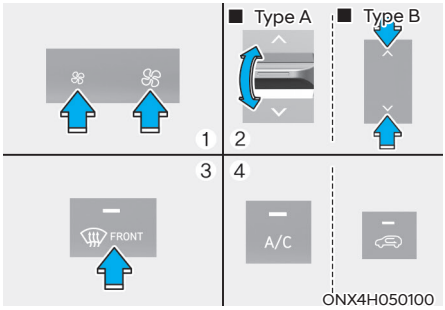
- For maximum defrost performance, set the temperature control to the highest temperature setting and the fan speed control to the highest setting.
- If warm air to the floor is desired while defrosting or defogging, set the mode to the floor-defrost position.
- Before driving, clear all snow and ice from the windshield, rear window, side view mirrors, and all side windows.
- Clear all snow and ice from the hood and air inlet in the cowl grill to improve heater and defroster efficiency and to reduce the probability of fogging up the inside of the windshield.

NOTICE

If the engine temperature is still cold after starting, then a brief engine warm up period may be required for the vented air flow to become warm or hot.

Automatic Climate Control System

To defog inside windshield

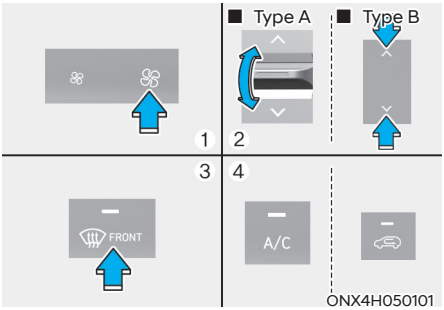


1. Select the desired fan speed.
2. Select the desired temperature.
3. Press the defroster button ().
4. The air-conditioning will turn on according to the detected ambient temperature, outside (fresh) air position and higher fan speed will be selected automatically.

If the air-conditioning, outside (fresh) air position and higher fan speed are not selected automatically, adjust the corresponding button or knob manually.

If the position is selected, lower fan speed is controlled to higher fan speed.

To defrost outside windshield



1. Set fan speed to the highest position.
2. Set temperature to the extreme hot (HI) position.
3. Press the defroster button ( ).
4. The air-conditioning will turn on according to the detected ambient temperature and outside (fresh) air position will be selected automatically.

If the position is selected, lower fan speed is controlled to higher fan speed.

Auto Defogging System on Models with Automatic Temperature Control

Auto defogging reduces the possibility of fogging up the inside of the windshield by automatically sensing the moisture on inside the windshield.

The auto defogging system operates when the heater or air conditioning is on.

Information

The auto defogging system may not operate normally, when the outside temperature is below 14°F (-10°C).

To cancel or set the Auto Defogging System, keep the front defroster button pressed for 3 seconds. The “ADS OFF” symbol will be shown in the climate display to inform you that the system is deactivated. To re-activate the auto defogging system, follow the procedure mentioned above and the “ADS OFF” symbol will disappear.

If the battery has been disconnected or discharged, it resets to the auto defogging status.

Information

For efficiency, do not select recirculated air position while the Auto defogging system is operating.

NOTICE

Do not remove the sensor cover located on the top of the windshield glass.

Damage to system parts could occur and may not be covered by your vehicle warranty.

Rear Window Defroster

NOTICE

To prevent damage to the rear window defroster conducting elements bonded to the inside surface of the rear window, never use sharp instruments or window cleaners containing abrasives to clean the window.



The defroster heats the window to remove frost, fog and thin ice from the interior and exterior of the rear window, while the engine is running.

- To activate the rear window defroster, press the rear window defroster button located in the center control panel. The indicator on the rear window defroster button illuminates when the defroster is ON.
- To turn off the defroster, press the rear window defroster button again.

Information

- **If there is heavy accumulation of snow on the rear window, brush it off before operating the rear defroster.**
- **The rear window defroster automatically turns off after approximately 20 minutes or when the Engine Start/Stop button is in the OFF position.**

Side view mirror defroster (if equipped)

If your vehicle is equipped with the side view mirror defrosters, they will operate at the same time you turn on the rear window defroster.

CLIMATE CONTROL ADDITIONAL FEATURES (IF EQUIPPED)

A/C Automatic Drying (if equipped)

A/C Automatic Drying feature dries the moisture in the air conditioner and reduces air conditioner odor. The blower motor automatically operates after 30 minutes the vehicle is turned off.

Turning A/C Automatic Drying On or off

The A/C Automatic Drying feature can be turned on and off by selecting 'Setup → Vehicle Settings → Climate → Climate Features → A/C Automatic Drying' from the infotainment system. See additional information in supplied Infotainment Manual.

If the operating condition is satisfied after setting the feature, the operating condition is displayed on the infotainment system screen and the blower motor automatically operates.

When the A/C Automatic Drying feature is activated, the air conditioner sets the fan speed to the third level, selects Fresh mode, and directs the air flow to the floor.

Operating conditions

The A/C Automatic Drying feature operates under the following conditions:

The vehicle is turned off after operating the air conditioner for a certain period The 12 V battery level is sufficient The outside temperature is above a certain level

Non-operating conditions

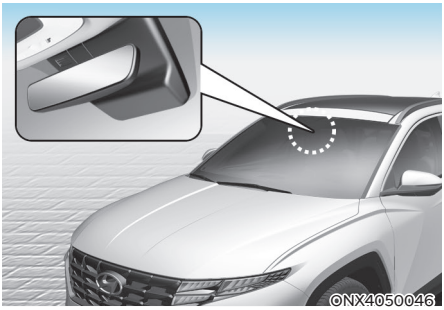
The A/C Automatic Drying feature stops operating under the following conditions:

- The A/C Automatic Drying feature has operated for 3 minutes
- The Start/Stop button is pressed, or the vehicle is on
- The climate control system is operated remotely

Information

- **The A/C Automatic Drying feature reduces air conditioner odors but may not remove all odors.**
- **The A/C Automatic Drying feature does not operate if the remaining battery level is insufficient to prevent battery discharge.**

Auto Defogging System on Models with Automatic Temperature Control



Auto defogging helps reduce the possibility of fogging up the inside of the windshield by automatically sensing the moisture on inside the windshield.

The auto defogging system operates when the heater or air conditioning is on.

Information

The auto defogging system may not operate normally, when the outside temperature is below 14 °F (-10 °C).



When the Auto Defogging System operates, the indicator will illuminate.

If a high amount of humidity is detected in the vehicle, the Auto Defogging System will be enabled. The following steps will be performed automatically:

Step 1) Air conditioning will turn ON.
Step 2) Air intake control will change to Fresh mode.
Step 3) Mode will change to defrost to direct airflow to the windshield.
Step 4) Fan speed will be set to MAX.

If the air conditioning is off or recirculation mode is manually selected while Auto Defogging System is ON, the Auto Defogging System indicator will blink 3 times to signal that the manual operation has been canceled.

Turning the Auto Defogging System ON or OFF

Climate control system

Press the front windshield defroster button for 3 seconds when the Engine Start/Stop button is in the ON position. When the Auto Defogging System is turned off, the ADS OFF symbol will blink 3 times and ADS OFF will be displayed on the climate control information screen.

When the Auto Defogging System is turned on, the ADS OFF symbol will blink 6 times without a signal.

Infotainment system

Auto Defogging System can be turned on and off by selecting 'Setup → Vehicle Settings → Climate → Defog/ Defrost Options → Auto Defog' from the infotainment system screen.

Information

The infotainment system may change after software updates. For more information, refer to the user's manual provided in the infotainment system and the quick reference guide.

Information

- **When the air conditioning is turned on by Auto Defogging System, if you try to turn off the air conditioning, the indicator will blink 3 times and the air conditioning will not be turned off.**
- **To maintain the effectiveness and efficiency of the Auto Defogging System, do not select Recirculation mode while the system is operating.**
- **When Auto Defogging System is operating, fan speed adjustment, temperature adjustment, and air intake control selection are all disabled.**

NOTICE

Do not remove the sensor cover located on the upper end of the windshield glass.

Damage to system parts could occur and may not be covered by your vehicle warranty.

Auto Dehumidify

To increase cabin air quality and reduce windshield misting, recirculation mode switches off automatically after about 5 to 30 minutes, depending on the outside temperature, and the air intake will change to fresh mode.

Turning Auto Dehumidify ON or OFF

Climate control system

To turn the Auto Dehumidify feature on or off, select Face level ( ) mode and press the air intake control ( ) button at least five times within three seconds. When Auto Dehumidify is turned on, the air intake control button indicator will blink 6 times. When turned off, the indicator will blink 3 times.

Infotainment system

Auto Dehumidify can be turned on and off by selecting 'Setup → Vehicle Settings → Climate → Automatic Ventilation → Auto Dehumidify' from the infotainment system screen.

Information

The infotainment system may change after software updates. For more information, refer to the user's manual provided in the infotainment system and the quick reference guide.

Recirculating Air when Washer Fluid is Used

Recirculation mode automatically activates to reduce any unpleasant scent of the washer fluid from entering the cabin when the windshield washer is used.

When it is shifted to the recirculation mode, the unpleasant scent may flow into the vehicle.

However, In cold whether to prevent the windshield from fogging up, the recirculation mode may not be selected.

Automatic Recirc Mode When Washer Fluid is Used - ON or OFF

Climate control system

You can choose to turn OFF the Automatic Recirc Mode when washer fluid is used. To adjust this feature, select Floor level ( ) mode, and then while pressing and holding the A/C button, press the air intake control ( ) button four times within 2 seconds.After performing the button press sequence described above, when the Automatic Recirc Mode feature is disabled, you will see the air intake control button blink 3 times (feature OFF). When the air intake control button blinks 6 times, the feature is enabled (feature ON).

Infotainment system

Activate upon Washer Fluid Use can be turned on and off by selecting 'Setup → Vehicle Settings → Climate → Recirculate Air → Activate upon Washer Fluid Use (or Interlocking washer fluid)' from the infotainment system screen.

Information

The infotainment system may change after software updates. For more information, refer to the user's manual provided in the infotainment system and the quick reference guide.

Sunroof Inside Air Recirculation (if equipped)

When the sunroof is opened, fresh mode will be automatically selected. At this time, if you press the air intake control button, recirculation mode will be selected but will change back to fresh mode after 3 minutes. When the sunroof is closed, the air intake position will return to the original position that was selected.

Automatic Controls for the Driver Based on Climate Control System Settings

The temperature of the driver's seat warmer, air ventilated seat and heated steering wheel is automatically controlled depending on the inside and outside temperature of the vehicle when the engine is running.

To use these features, it must be enabled from the Settings menu in the infotainment system screen. Select:

- Setup → Vehicle Settings → Seat → Heated/Ventilated Features → Heated/Ventilated Features → Auto. Controls That Use Climate Control Settings

For more details on Auto Comfort Control, refer to "Seat Warmers" and "Air ventilation seats" section in chapter 3 and "Heated Steering Wheel" section in chapter 5.

STORAGE COMPARTMENT

WARNING

Never store cigarette lighters, propane cylinders, or other flammable/explosive materials in the vehicle. These items may catch fire and/or explode if the vehicle is exposed to hot temperatures for extended periods.

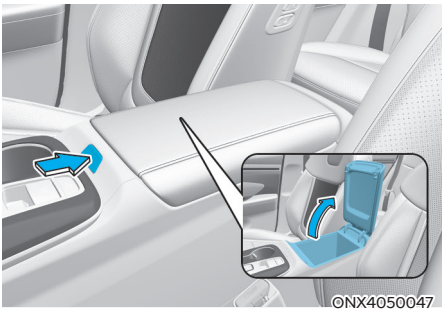
WARNING

ALWAYS keep the storage compartment covers closed securely while driving. Items inside your vehicle are moving as fast as the vehicle. If you have to stop or turn quickly, or if there is a crash, the items may fly out of the compartment and may cause an injury if they strike the driver or a passenger.

NOTICE

To avoid possible theft, do not leave valuables in the storage compartments.

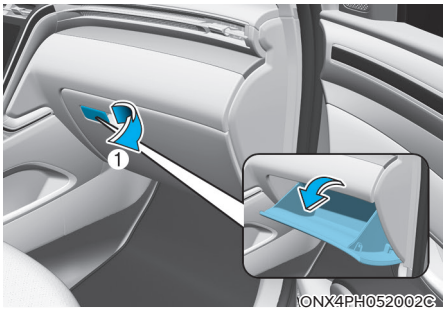
Center Console Storage


ONX4050047

To open:

Press the button.

Glove Box



ONX4PH052002G

To open:

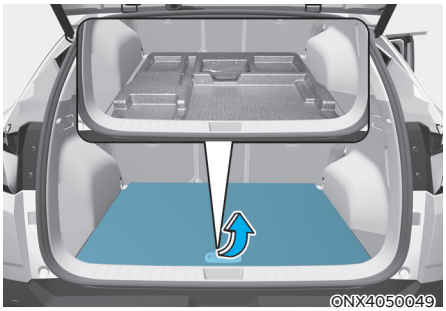
Pull the lever (1).

WARNING

ALWAYS close the glove box door after use.

An open glove box door can cause serious injury to the passenger in an accident, even if the passenger is wearing a seat belt.

Luggage Tray (if equipped)

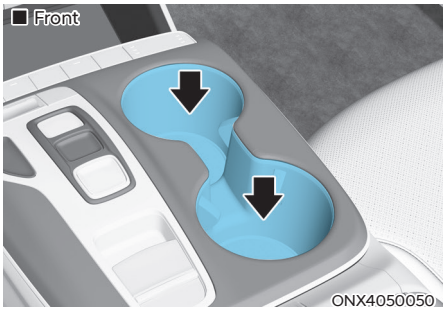

ONX4050049

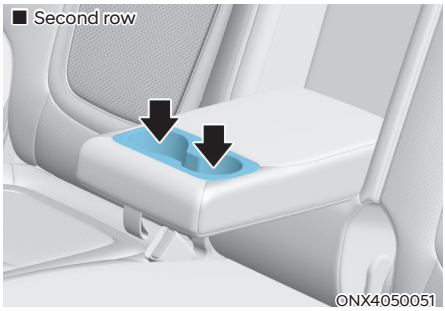
You can place a first aid kit, a reflector triangle (front tray), tools, etc. in the box for easy access.

- Grasp the handle on the top of the cover and lift it.

INTERIOR FEATURES

Cup Holder





Cups or small beverages cups may be placed in the cup holders.

WARNING

- **Avoid abrupt starting and braking when the cup holder is in use to prevent spilling your drink. If hot liquid spills, you could be burned. Such a burn to the driver could cause loss of vehicle control resulting in an accident.**
- **Do not place uncovered or unsecured cups, bottles, cans, etc., in the cup holder containing hot liquid while the vehicle is in motion. Injuries may result in the event of a sudden stop or collision.**
- **Only use soft cups in the cup holders. Hard objects can injure you in an accident.**

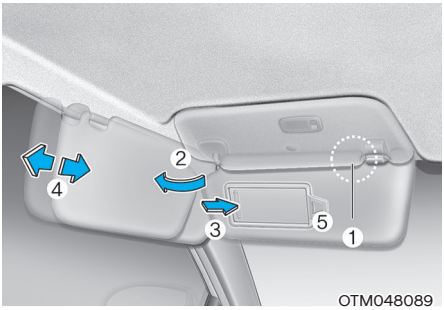
WARNING

Keep cans or bottles out of direct sun light and do not put them in a hot vehicle. They may inadvertently explode.

NOTICE

- **Keep your drinks sealed while driving to prevent spilling your drink. If liquid spills, it may get into the vehicle's electrical/electronic system and damage electrical/electronic parts.**
- **When cleaning spilled liquids do not use hot air to blow out or dry the cup holder. This may damage the interior.**

Sunvisor



To use the sunvisor, pull it downward.

To use the sunvisor to block the sun from the side window, pull it downward, release it from the bracket (1) and swing it to the side (2) towards the window.

To use the vanity mirror, pull down the sunvisor and slide the mirror cover (3).

Adjust the sunvisor forward or backward (4) as needed (if equipped). Use the ticket holder (5) to hold tickets.

Close the vanity mirror cover securely and return the sunvisor to its original position after use.

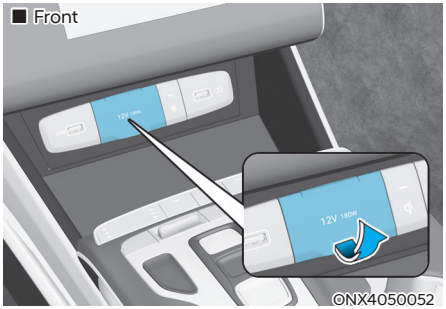
WARNING

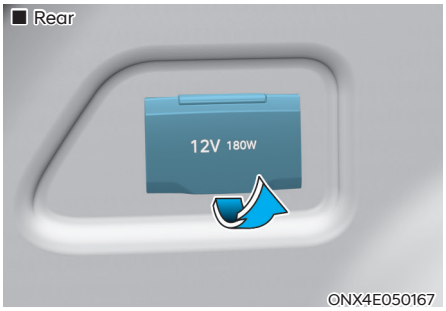
For your safety, do not block your view when using the sunvisor.

NOTICE

The tab (5) adjacent to the vanity mirror on the sunvisor can be used for toll road tickets or self parking tickets. Use caution when inserting tickets into the ticket holder to avoid damage. Refrain from putting several tickets in the ticket holder as this could also damage the retaining tab.

Power Outlet





The power outlet is designed to provide power for mobile telephones or other devices designed to operate with vehicle electrical systems. The devices should draw less than 180 watts with the engine running.

WARNING

Avoid electrical shocks. Do not place your fingers or foreign objects (pin, etc.) into a power outlet or touch the power outlet with a wet hand.

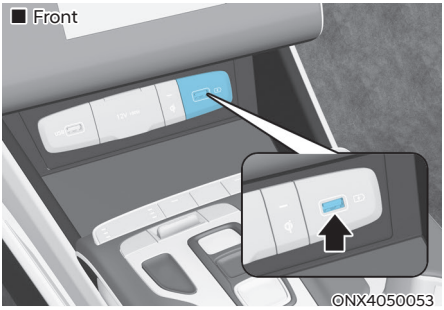
CAUTION

To prevent damage to the power outlets:

- **Use the power outlet only when the engine is running and remove the accessory plug after use. Using the accessory plug for prolonged periods of time with the engine off could cause the battery to discharge.**
- **Only use 12 V electric accessories which are less than 180 watts in electric capacity.**
- **Adjust the air-conditioner or heater to the lowest operating level when using the power outlet.**
- **Close the cover when not in use.**
- **Some electronic devices can cause electronic interference when plugged into a vehicle's power outlet. These devices may cause excessive audio static and malfunctions in other electronic systems or devices used in your vehicle.**
- **Push the plug in as far as it will go. If good contact is not made, the plug may overheat and the fuse may open.**
- **Plug in battery equipped electrical/electronic devices with reverse current protection. The current from the battery may flow into the vehicle's electrical/electronic system and cause system malfunction.**

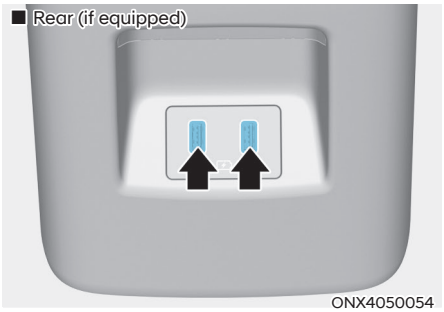
USB Charger

■ Front



ONX4050053

■ Rear (if equipped)



ONX4050054

The USB charger is designed to recharge batteries of small size electrical devices using a USB cable.

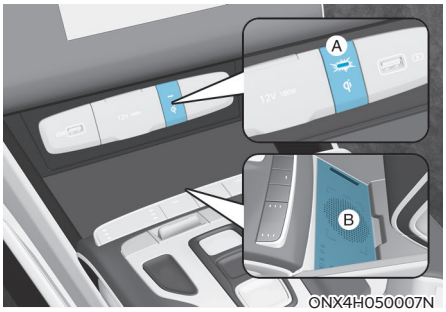
The electrical devices can be recharged when the Engine Start/Stop button is in the ACC or ON (or START) position.

The battery charging state may be monitored on the electrical device.

Disconnect the USB cable from the USB port after use.

- A smart phone or a tablet PC may get warmer during the re-charging process. It does not indicate any malfunction with the charging system.
- A smart phone or a tablet PC, which adopts a different re-charging method, may not be properly re-charged. In this case, use an exclusive charger of your device.
- The charging terminal is only to recharge a device. Do not use the charging terminal either to turn ON an audio or to play media In the infotainment system.

Wireless Smart Phone Charging System (if equipped)



[A] : Indicator light, [B] : Charging pad

On certain models, the vehicle comes equipped with a wireless smart phone charger.

The system is available when all doors are closed, and when the Engine Start/ Stop button is in the ON (or START) position.

Charging smart phone

The wireless smart phone charging system charges only the Qi-enabled smart phones (Qi). Read the label on the smart phone accessory cover or visit your smart phone manufacturer's website to check whether your smart phone supports the Qi technology.

The wireless charging process starts when you put a Qi-enabled smart phone on the wireless charging unit.

1. Remove other items, including the smart key, from the wireless charging unit. If not, the wireless charging process may be interrupted. Place the smart phone on the center of the charging pad.
2. The indicator light is orange when the smart phone is charging. The indicator light will turn blue when phone charging is complete.
3. You can turn ON or OFF the wireless charging function from the Settings menu on the instrument cluster. Select:
   - Setup → User settings → Convenience → Wireless Charging

If your smart phone is not charging:

- Slightly change the position of the smart phone on the charging pad.
- Make sure the indicator light is orange.

The indicator light will blink orange for 10 seconds if there is a malfunction in the wireless charging system.

In this case, temporarily stop the charging process, and re-attempt to charge your smart phone again.

The system warns you with a message on the cluster display if the smart phone is still on the wireless charging unit after the vehicle is turned OFF and the front door is opened.

For some manufacturer's smart phones, the system may not warn you even though the smart phone is left on the wireless charging unit. This is due to the particular characteristic of the smart phone and not a malfunction of the wireless charging.

Information

- **For some manufacturers' cellular phones, the system may not warn you even though the cellular phone is left on the wireless charging unit. This is due to the particular characteristic of the cellular phone and not a malfunction of the wireless charging.**
- **For flip type smartphones, when using wireless charging, place the smartphone folded with the device's back placed on the center of the wireless charging unit.**

NOTICE

- The wireless smart phone charging system may not support certain smart phones, which are not verified for the Qi specification (Qi).
- High speed wireless charging can be activated only when the cellular phones equipped with a wireless charging function is on the charging pad.
- During wireless charging, the internal fan operates to prevent the charging pad from becoming hot. This may cause fan noise.
- When placing your smart phone on the charging pad, position the phone in the middle of the mat for optimal charging performance. If your smart phone is off to the side, the charging rate may be less and in some cases the smart phone may experience higher heat conduction.
- In some cases, the wireless charging may stop temporarily when the smart key is used, either when starting the vehicle or locking/ unlocking the doors, etc.
- When charging certain smart phones, the charging indicator may not change to blue when the smart phone is fully charged.
- The wireless charging process may temporarily stop, when temperature abnormally increases inside the wireless smart phone charging system. The wireless charging process restarts, when temperature falls to a certain level.
- The wireless charging process may temporarily stop when there is any metallic item, such as a coin, between the wireless smart phone charging system and smart phone.
- When using a smartphone application, such as Android Auto, while charging, the charging process may be delayed or interrupted due to the smartphone overheating. This issue is not related to the wireless charging system but rather caused by the smartphone's self-heating. Therefore, disconnect the smartphone from the charging pad.
- If the smart phone has a thick cover, the wireless charging may not be possible.
- If the smart phone is not completely contacting the charging pad, wireless charging may not operate properly.
- Some magnetic items like credit cards, phone cards or rail tickets may be damaged if left with the smart phone during the charging process.
- When any smart phone without a wireless charging function or a metallic object is placed on the charging pad, a small noise may sound. This small sound is due to the vehicle discerning compatibility of the object placed on the charging pad. It does not affect your vehicle or the smart phone in any way.
- If some metallic items such as coins and other metallic substances exist between the wireless charging system and the cell phone, the wireless charging process may be temporarily interrupted, the metallic substances can be hot, and the alarm may not work when the cell phone is left on the charging pad.

Information

If the Engine Start/Stop button is in the OFF position, the charging also stops.

Information

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

1. **This device may not cause harmful interference, and**
2. **This device must accept any interference received, including interference that may cause undesired operation.**

Clock

The clock can be set from the infotainment system.

Information

The infotainment system may change after software updates. For more information, refer to the user's manual provided in the infotainment system and the quick reference guide.

WARNING

Do not attempt to adjust the clock while driving. Doing so may result in distracted driving which may lead to an accident involving personal injury or death.

Coat Hook



These hooks are not designed to hold large or heavy items.

WARNING



Do not hang other objects such as hangers or hard objects except clothes. Also, do not put heavy, sharp or breakable objects in the clothes pockets. In an accident or when the curtain air bag is inflated, it may cause vehicle damage or personal injury.

Floor Mat Anchor(s)

ALWAYS use the Floor Mat Anchors to attach the front floor mats to the vehicle. The anchors on the front floor carpet keep the floor mats from sliding forward.

WARNING

Do not overlay additional mats or liners over the floor mats. If using All Weather mats, remove the carpeted floor mats before installing them. Only use floor mats designed to connect to the anchors.

WARNING

The following must be observed when installing ANY floor mat to the vehicle.

- **Ensure to remove a protective film attached on the carpet before attaching a floor mat on the front floor carpet. Otherwise, the floor mat may move freely on the protective film and it could result in unintentional braking or accelerating.**
- **Ensure that the floor mats are securely attached to the vehicle's floor mat anchor(s) before driving the vehicle.**
- **Do not use ANY floor mat that cannot be firmly attached to the vehicle's floor mat anchors.**
- **Do not stack floor mats on top of one another (for example, all-weather rubber mat on top of a carpeted floor mat). Only a single floor mat should be installed in each position.**

IMPORTANT - Your vehicle was manufactured with driver's side floor mat anchors that are designed to securely hold the floor mat in place. To avoid any interference with pedal operation, HYUNDAI recommends that the HYUNDAI floor mat designed for use in your vehicle be installed.

Luggage Net Holder (if equipped)



ONX4E050080

To keep items from shifting in the luggage compartment, you can use the 4 holders located in the luggage side trim to attach the luggage net.

Make sure the luggage net is securely attached to the holders in the luggage board.

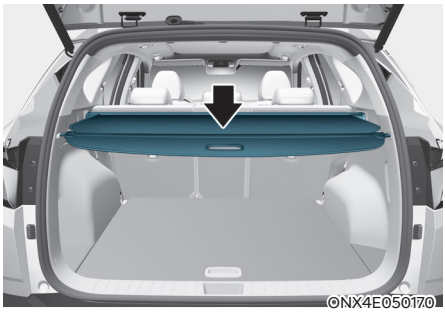
If necessary, contact your authorized HYUNDAI dealer to obtain a luggage net.

WARNING

Avoid eye injury. DO NOT overstretch the luggage net. ALWAYS keep your face and body out of the luggage net's recoil path. DO NOT use the luggage net when the strap has visible signs of wear or damage.

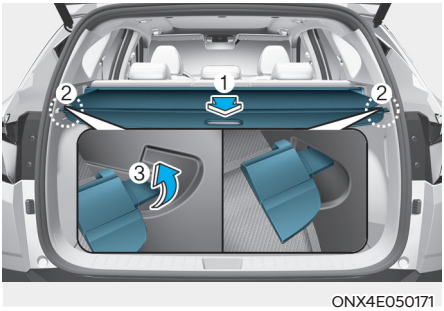
Use the luggage net to keep only light items from shifting in the luggage compartment.

Cargo Security Screen (if equipped)



Use the cargo security screen to cover items stored in the cargo area.

Using the cargo security screen



1. Pull the cargo security screen towards the rear of the vehicle by the handle (1).
2. Insert the guide pin (2) into the guide (3).

Information

Pull out the cargo security screen with the handle in the center to prevent the guide pin from falling out of the guide.

When the cargo security screen is not in use:

1. Pull the cargo security screen backward and up to release it from the guides.
2. The cargo security screen will automatically slide back in.

Information

The cargo security screen may not automatically slide back in if the cargo security screen is not fully pulled out. Pull the cargo screen out all the way and then slowly allow the screen to retract back in.

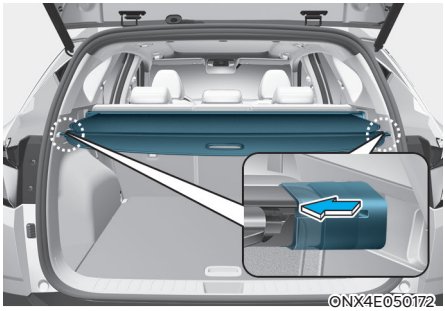
NOTICE

Since the cargo security screen may be damaged or malformed, do not put luggage on it when it is used.

WARNING

- **Do not place objects on the cargo security screen. Such objects may be thrown about inside the vehicle and possibly injure vehicle occupants during an accident or when braking.**
- **Never allow anyone to ride in the luggage compartment. It is designed for luggage only.**
- **Maintain the balance of the vehicle and locate the weight as forward as possible.**

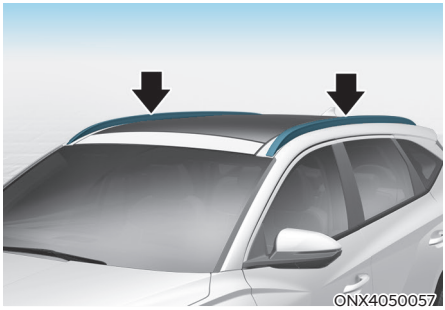
Removing the cargo security screen



1. Push one side of the cargo screen inward to compress the spring and release the screen from the vehicle.
2. While the spring is compressed, pull out the cargo security screen.
3. Open the luggage tray and keep the cargo security screen in the tray.

EXTERIOR FEATURES

Roof Side Rails



If your vehicle comes with roof side rails, then roof side rails crossbars can be installed on top of your vehicle.

The roof side rails crossbars are an accessory and are available at your HYUNDAI dealer.

NOTICE

If the vehicle is equipped with a sunroof, be sure not to position cargo onto the roof side rails in such a way that it could interfere with sunroof operation.

NOTICE

- **When carrying cargo on the roof side rails, take the necessary precautions to make sure the cargo does not damage the roof of the vehicle.**
- **When carrying large objects on the roof side rails, make sure they do not exceed the overall roof length or width.**

WARNING

- **The following specification is the maximum weight that can be loaded onto the roof side rails. Distribute the load as evenly as possible onto the roof side rails and secure the load firmly.**

  Loading cargo or luggage in excess of the specified weight limit on the roof side rails may damage your vehicle.

ROOF SIDE RAILS	220 lbs. (100 kg) EVENLY DISTRIBUTED

- **The vehicle center of gravity will be higher when items are loaded onto the roof side rails. Avoid sudden starts, braking, sharp turns, abrupt maneuvers or high speeds that may result in loss of vehicle control or rollover resulting in an accident.**
- **Always drive slowly and turn corners carefully when carrying items on the roof side rails. Severe wind updrafts, caused by passing vehicles or natural causes, can cause sudden upward pressure on items loaded on the roof side rails. This is especially true when carrying large, flat items such as wood panels or mattresses. This could cause the items to fall off the roof side rails and cause damage to your vehicle or others around you.**
- **To prevent damage or loss of cargo while driving, check frequently before or while driving to make sure the items on the roof side rails are securely fastened.**

INFOTAINMENT SYSTEM

NOTICE

- **If you install an aftermarket HID head lamp, your vehicle's audio and electronic devices may not function properly.**
- **Prevent chemicals such as perfume, cosmetic oil, sun cream, hand cleaner, and air freshener from contacting the interior parts because they may cause damage or discoloration.**

USB Port



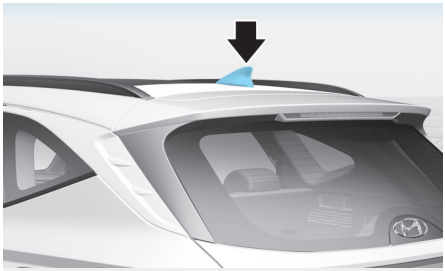
You can use an USB cable to connect audio devices to the vehicle USB port.

Information

When using a portable audio device connected to the power outlet, noise may occur during playback. If this happens, use the portable audio device's power source.

Antenna

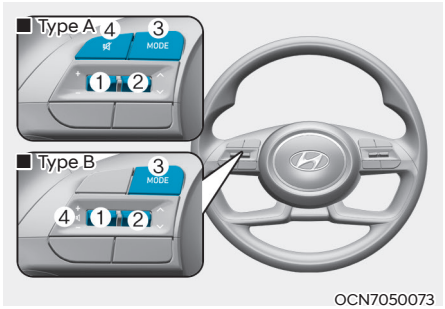
Shark fin antenna



ONX4050058

The shark fin antenna receives transmitted data. (for example: AM/FM, GPS)

Steering Wheel Remote Controls



OCN7050073

NOTICE

Do not operate multiple audio remote control buttons simultaneously.

VOLUME (VOL + / VOL -) (1)

- Rotate the VOLUME scroll up to increase volume.
- Rotate the VOLUME scroll down to decrease volume.

Information

You can set the volume level of each source (FM, AM, SXM, USB, BT, etc.) individually by adjusting the VOLUME scroll.

Then the infotainment system saves the last volume level of each source in the system sound settings.

If you change the source, the volume will revert to the previously set volume for that source.

SEEK/PRESET (∧ / ∨) (2)

If the SEEK/PRESET switch is pressed up or down and held for 0.8 second or more, it will function in the following modes:

- **RADIO mode**
  It will function as the AUTO SEEK select button. It will SEEK until you release the button.
- **MEDIA mode**
  It will function as the FF/RW button.

If the SEEK/PRESET switch is pressed up or down, it will function in the following modes:

- **RADIO mode**
  It will function as the PRESET STATION UP/DOWN button.
- **MEDIA mode**
  It will function as the TRACK UP/ DOWN button.

MODE (3)

Press the MODE button to toggle through Radio or Media modes.

MUTE (🔇) (4)

- Press the MUTE button to mute the sound.
- Press the MUTE button again to activate the sound.

Information

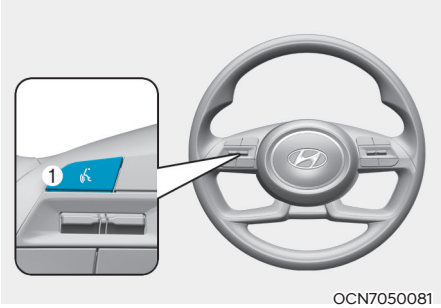
See additional information in supplied Infotainment Manual.

Infotainment System

Information

The infotainment system may change after software updates. For more information, refer to the user's manual provided in the infotainment system and the quick reference guide.

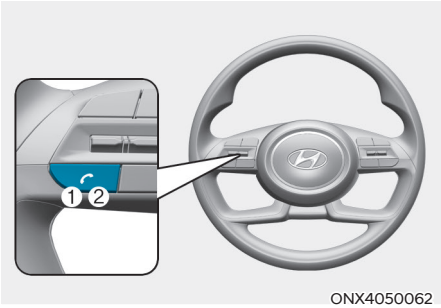
Voice Recognition



OCN7050081

For detailed information, refer to the separately supplied infotainment system manual.

Bluetooth® Wireless Technology



ONX4050062



ONX4E050174

(1) Call / Answer button
(2) Call end button
(3) Microphone

For detailed information, refer to the separately supplied infotainment system manual.

CAUTION

To avoid driver distractions, do not excessively operate the device while driving the vehicle which may lead to an accident.

6. Driving Your Vehicle

Before Driving 6-4
Before Entering the Vehicle 6-4
Before Starting 6-4
Ignition Switch 6-5
Engine Start/Stop Button 6-5
Remote Start 6-9
Automatic Transmission 6-10
Automatic Transmission Operation 6-10
Parking 6-13
Cluster Display Message 6-14
Paddle Shifter 6-15
Good Driving Practices 6-15
Coasting Guide 6-17
Braking System 6-18
Power Brakes 6-18
Disc Brakes Wear Indicator 6-19
Electronic Parking Brake (EPB) 6-19
Auto Hold 6-23
Anti-lock Brake System (ABS) 6-27
Electronic Stability Control (ESC) 6-28
Vehicle Stability Management (VSM) 6-31
Hill-Start Assist Control (HAC) 6-32
Trailer Stability Assist (TSA) 6-33
Downhill Brake Control (DBC) 6-33
Good Braking Practices 6-36
All Wheel Drive (AWD) 6-37
All Wheel Drive (AWD) Operation 6-38
Emergency Precautions 6-42
Reducing the Risk of a Rollover 6-44
Electronic Control Suspension 6-45
System Malfunction 6-45

Drive Mode Integrated Control System (AWD) 6-46
Drive Mode 6-46
Special Driving Conditions 6-49
Hazardous Driving Conditions 6-49
Rocking the Vehicle 6-49
Smooth Cornering 6-50
Driving at Night 6-50
Driving in the Rain 6-50
Driving in Flooded Areas 6-51
Highway Driving 6-51
Reducing the Risk of a Rollover 6-51
Winter Driving 6-52
Snow or Icy Conditions 6-52
Winter Precautions 6-55
Trailer Towing 6-57
If you Decide to Pull a Trailer 6-58
Trailer Towing Equipment 6-61
Driving with a Trailer 6-62
Maintenance when Towing a Trailer 6-65
Vehicle Weight 6-66
The Loading Information Label 6-67

WARNING

Carbon monoxide (CO) gas is toxic. Breathing CO can cause unconsciousness and death.

Engine exhaust contains carbon monoxide which cannot be seen or smelled.

Do not inhale engine exhaust.

If at any time you smell engine exhaust inside the vehicle, open the windows immediately. Exposure to CO can cause unconsciousness and death by asphyxiation.

Be sure the exhaust system does not leak.

The exhaust system should be checked whenever the vehicle is raised to change the oil or for any other purpose. If you hear a change in the sound of the exhaust or if you drive over something that strikes the underneath side of the vehicle, have the exhaust system checked as soon as possible by an authorized HYUNDAI dealer.

Do not run the engine in an enclosed area.

Letting the engine idle in your garage, even with the garage door open, is a hazardous practice. Run the engine only long enough to start the engine and to move the vehicle out of the garage.

Avoid idling the engine for prolonged periods with people inside the vehicle.

If it is necessary to idle the engine for a prolonged period with people inside the vehicle, be sure to do so only in an open area with the air intake set at “Fresh” and fan control set to high so fresh air is drawn into the interior.

Keep the air intakes clear.

To assure proper operation of the ventilation system, keep the ventilation air intakes located in front of the windshield clear of snow, ice, leaves, or other obstructions.

If you must drive with the liftgate open:

Close all windows.

Open instrument panel air vents.

Set the air intake control at “Fresh”, the air flow control at “Floor” or “Face”, and the fan control set to high.

WARNING

CALIFORNIA PROPOSITION 65 WARNING

Engine exhaust and a wide variety of automobile components including components found in the interior furnishings in a vehicle, contain or emit harmful chemicals known to the State of California to cause cancer and birth defects and reproductive harm. In addition, certain fluids contained in vehicles and certain products of components contain or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

BEFORE DRIVING

Before Entering the Vehicle

- Be sure all windows, outside mirror(s), and outside lights are clean and unobstructed.
- Remove frost, snow, or ice.
- Visually check the tires for uneven wear and damage.
- Check under the vehicle for any sign of leaks.
- Be sure there are no obstacles behind you if you intend to back up.

Before Starting

- Make sure the hood, the liftgate, and the doors are securely closed and locked.
- Adjust the position of the seat and steering wheel.
- Adjust the inside and side view mirrors.
- Verify all the lights work.
- Fasten your seat belt. Check that all passengers have fastened their seat belts.
- Check the gauges and indicators in the instrument panel and the messages on the instrument display when the ignition switch is in the ON position.
- Check that any items you are carrying are stored properly or fastened down securely.

WARNING

To reduce the risk of SERIOUS INJURY or DEATH, take the following precautions:

- **ALWAYS wear your seat belt. All passengers must be properly belted whenever the vehicle is moving. For more information, refer to "Seat Belts" section in chapter 3.**
- **Always drive defensively. Assume other drivers or pedestrians may be careless and make mistakes.**
- **Stay focused on the task of driving. Driver distraction can cause accidents.**
- **Leave plenty of space between you and the vehicle in front of you.**

WARNING

NEVER drink or take drugs and drive.

Drinking or taking drugs and driving is dangerous and may result in an accident and SERIOUS INJURY or DEATH.

Drunk driving is the number one contributor to the highway death toll each year. Even a small amount of alcohol will affect your reflexes, perceptions and judgment. Just one drink can reduce your ability to respond to changing conditions and emergencies and your reaction time gets worse with each additional drink.

Driving while under the influence of drugs is as dangerous or more dangerous than driving under the influence of alcohol.

You are much more likely to have a serious accident if you drink or take drugs and drive. If you are drinking or taking drugs, don't drive. Do not ride with a driver who has been drinking or taking drugs. Choose a designated driver or call a taxi.

IGNITION SWITCH

WARNING

To reduce the risk of SERIOUS INJURY or DEATH, take the following precautions:

- **NEVER allow children or any person who is unfamiliar with the vehicle to touch the ignition switch or related parts. Unexpected and sudden vehicle movement can occur.**
- **NEVER reach through the steering wheel for the ignition switch, or any other control, while the vehicle is in motion. The presence of your hand or arm in this area may cause a loss of vehicle control resulting in an accident.**

Engine Start/Stop Button (if equipped)



Whenever the front door is opened, the Engine Start/Stop button will illuminate and will go off 30 seconds after the door is closed (if equipped).

WARNING

To turn the vehicle off in an emergency:

Press and hold the Engine Start/Stop button for more than two seconds OR Rapidly press and release the Engine Start/ Stop button three times (within three seconds).

If the vehicle is still moving, you can restart the vehicle without depressing the brake pedal by pressing the Engine Start/Stop button with the shift button in the N (Neutral) position.

WARNING

- **NEVER press the Engine Start/Stop button while the vehicle is in motion except in an emergency. This will result in the vehicle turning off and loss of power assist for the steering and brake systems. This may lead to loss of directional control and braking function, which could cause an accident.**
- **Before leaving the driver's seat, always make sure the shift button is in the P (Park) position, set the parking brake, press the Engine Start/Stop button to the OFF position, and take the Smart Key with you. Unexpected vehicle movement may occur if these precautions are not followed.**
- **NEVER reach through the steering wheel for the Engine Start/Stop button or any other control while the vehicle is in motion. The presence of your hand or arm in this area may cause a loss of vehicle control resulting in an accident.**

Engine Stop/Start button positions

Button Position	Action	Notice
OFF	To turn off the engine, press the Engine Start/Stop button with shift button in P (Park). If the Engine Start/Stop button is pressed with the vehicle shifted to D (Drive), R (Reverse), or N (Neutral), the gear automatically shifts to P (Park). The steering wheel locks to protect the vehicle from theft.	If the steering wheel is not locked properly when you open the driver's door, the warning chime will sound.
ACC	Press the Engine Start/Stop button when the button is in the OFF position without depressing the brake pedal. Some electrical accessories are usable. The steering wheel unlocks.	If you leave the Engine Start/ Stop button in the ACC position for more than one hour, the battery power will turn off automatically to prevent the battery from discharging. If the steering wheel doesn't unlock properly, the Engine Start/ Stop button will not work. Press the Engine Start/Stop button while turning the steering wheel right and left to release tension.
ON	Press the Engine Start/Stop button while it is in the ACC position without depressing the brake pedal. The warning lights can be checked before the engine is started.	Do not leave the Engine Start/ Stop button in the ON position when the engine is not running to prevent the battery from discharging.
START	To start the engine, depress the brake pedal and press the Engine Start/Stop button with the shift button in the P (Park). For your safety, start the engine with the shift button in the P (Park) position.	If you press the Engine Start/ Stop button without depressing the brake pedal, the engine does not start and the Engine Start/ Stop button changes as follows: **OFF → ACC → ON → OFF or ACC**

Starting the engine

WARNING

- **Always wear appropriate shoes when operating your vehicle. Unsuitable shoes, such as high heels, ski boots, sandals, flipflops, etc., may interfere with your ability to use the brake and accelerator pedals.**
- **Do not start the vehicle with the accelerator pedal depressed.**

  The vehicle can move which can lead to an accident.

Information

- **The vehicle will start by pressing the Engine Start/Stop button, only when the smart key is in the vehicle.**
- **Even if the smart key is in the vehicle, and when it is far away from the driver, the hybrid system may not start.**
- **When the Engine Start/Stop button is in the ACC or ON position, any door is open, the system checks for the smart key. When the smart key is not in the vehicle, the "" indicator will blink and the warning "Key not in vehicle" will come on. When all doors are closed, the chime will also sound for about 5 seconds. Keep the smart key in the vehicle when in the ACC position or if the hybrid system is ON.**

1. Always carry the smart key with you.
2. Make sure the parking brake is applied.
3. Make sure the shift button is in P (Park).
4. Depress the brake pedal.
5. Press the Engine Start/Stop button. If the vehicle starts, the "" indicator will come on.

Information

- **Do not wait for the engine to warm up while the vehicle remains stationary.**

  Start driving at moderate engine speeds. Steep accelerating and decelerating should be avoided.
- **Always start the vehicle with your foot on the brake pedal. Do not depress the accelerator while starting the vehicle. Do not race the engine while warming it up.**
- **If ambient temperature is low, the "" indicator may remain illuminated longer than the normal amount of time.**

NOTICE

To prevent damage to the vehicle:

- **If the "" indicator turns off while you are in motion, do not attempt to move the shift button to the P (Park) position.**
- **Do not push or tow your vehicle to start the vehicle.**

NOTICE

To prevent damage to the vehicle:

Do not press the Engine Start/Stop button for more than 10 seconds except when the stop lamp fuse is blown.

When the stop lamp fuse is blown, you cannot normally start the hybrid system. Replace the fuse with a new one. If you are not able to replace the fuse, you can start the vehicle by pressing and holding the Engine Start/Stop button for 10 seconds with the Engine Start/Stop button in the ACC position.

For your safety always depress the brake pedal before starting the vehicle.

Emergency starting



If the smart key battery is weak or the smart key does not work correctly, you can start the vehicle by pressing the Engine Start/Stop button with the smart key in the direction of the picture above.

Turning off the engine

1. Stop the vehicle and depress the brake pedal fully.
2. Make sure the shift button is in P(Park).
3. Press the Engine Start/Stop button to the OFF position and apply the parking brake.

Auto shut-off system (if equipped)

To prevent accidents caused by carbon dioxide poisoning, the engine is turned off automatically 60 minutes later when the following conditions are satisfied. The timer appears on the instrument cluster 30 minutes before it turns off automatically.

Operating conditions

- The driver does not fasten a seat belt
- No one in the passenger's seat
- Stop the vehicle and the speed is under 1.86mph and the gear shift is in P
- While the brake or accelerator is not working
- When Infotainment system update is not performing

Cluster timer reset conditions

- Release the accelerator or brake after completing operation
- Press the OK button on the steering wheel while the timer appears on the instrument cluster

Off conditions

- The driver fastened the seat belt
- A passenger is in the pasenger's seat
- Driving over 1.86mph
- Shifting the gear in R, N or D

CAUTION

Please do not leave a passenger or a pet in the vehicle since the air conditioning system stops when the engine is off.

Remote Start (if equipped)

■ Type A



OTM060003

■ Type B



OTM060004

You can start the vehicle using the Remote Start button of the smart key.

To start the vehicle remotely:

1. Press the door lock button within 32 feet (10 m) from the vehicle.
2. Press and hold the remote start button (HOLD) within 4 seconds after pressing the Door Lock button on the remote.
3. To turn off the remote start function, press the remote start (HOLD) button once.

- The remote start (HOLD) button may not operate if the smart key is not within 32 feet (10 m).
- The vehicle will not remotely start if the engine hood or liftgate is opened.
- The vehicle must be in P (Park) for the remote start function to start.
- The engine turns off if you get in the vehicle without a registered smart key.
- The engine turns off if you do not get in the vehicle within 10 minutes after remotely starting the vehicle.
- Do not idle the engine for a long period.

AUTOMATIC TRANSMISSION



ONX4060003

Automatic Transmission Operation

The automatic transmission has six forward speeds and one reverse speed. The individual speeds are selected automatically in the D (Drive) position. The indicator in the instrument cluster displays the shift button position when the ignition switch is in the ON position.

WARNING

The automatic transmission shift button or interior parts might get hot when a vehicle is parked outside during hot weather. Always be careful when the vehicle is hot.

WARNING

To reduce the risk of serious injury or death:

- **ALWAYS check the surrounding areas near your vehicle for people, especially children, before shifting a vehicle into D (Drive) or R (Reverse).**
- **Before leaving the driver's seat, always make sure the shift button is in the P (Park) position, then set the parking brake, and place the Engine Start/Stop button in the OFF position. Unexpected and sudden vehicle movement can occur if these precautions are not followed.**
- **When using the paddle shifters to change gears, do not shift from a high gear to lower gear on slippery roads. The vehicle may slip causing an accident.**

P (Park)

Always come to a complete stop before shifting into P (Park).

To shift from P (Park), you must depress firmly on the brake pedal and make sure your foot is off the accelerator pedal.

The shift button must be in P (Park) before turning the engine off.

WARNING

- **Shifting into P (Park) while the vehicle is in motion may cause you to lose control of the vehicle.**
- **After the vehicle has stopped, always make sure the shift button is in P (Park), apply the parking brake, and turn the engine off.**
- **When parking on an incline with the vehicle facing down the hill, turn the steering wheel fully to the right to prevent the vehicle from rolling downhill. When parking with the vehicle facing up the hill, turn the steering wheel fully to the left.**
- **Do not use the P (Park) position in place of the parking brake.**

R (Reverse)

Use this position to drive the vehicle backward.

NOTICE

Always come to a complete stop before shifting into or out of R (Reverse); you may damage the transmission if you shift into R (Reverse) while the vehicle is in motion.

When the vehicle is stopped in R (Reverse) position, if you open the driver's door with the seat belt unfastened, the gear is shifted to P (Park) position automatically.

However when the vehicle moves in R (Reverse) position, if you open the driver's door with the seat belt unfastened, the gear may be not shifted to P (Park) position automatically for protecting the automatic transmission.

N (Neutral)

The wheels and transmission are not engaged.

Use N (Neutral) if you need to restart a stalled engine, or if it is necessary to stop with the engine ON. Shift into P (Park) if you need to leave your vehicle for any reason.

Always depress the brake pedal when you are shifting from N (Neutral) to another gear.

WARNING

Do not shift into gear unless your foot is firmly on the brake pedal. Shifting into gear when the engine is running at high speed can cause the vehicle to move very rapidly. You could lose control of the vehicle and hit people or objects.

D (Drive)

This is the normal driving position. The transmission will automatically shift through a 6-gear sequence, providing the best fuel economy and power.

To start the vehicle forward, push the D (Drive) button by depressing the brake pedal with the engine ON. Then depress the accelerator pedal smoothly.

For extra power when passing another vehicle or driving uphill, depress the accelerator. The transmission will automatically downshift to the next lower gear (or gears, as appropriate).

When the vehicle is stopped in D (Drive) position, if you open the driver's door with the seat belt unfastened, the gear is shifted to P (Park) position automatically.

However when the vehicle moves in D (Drive) position, if you open the driver's door with the seat belt unfastened, the gear may be not shifted to P (Park) position automatically for protecting the automatic transmission.

The DRIVE MODE switch, located on the shift button console, allows the driver to switch from NORMAL mode to SPORT or ECO mode. (if equipped)

For more details, refer to "Drive Mode Integrated Control System" later in this chapter.

Shift-lock system

For your safety, the automatic transmission has a shift-lock system which prevents shifting the transmission from P (Park) or N (Neutral) to R (Reverse) or D (Drive) unless the brake pedal is depressed.

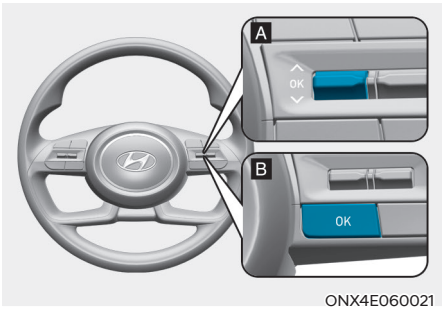
To shift the transmission from P (Park) into R (Reverse):

1. Depress and hold the brake pedal.
2. Start the engine or place the ignition switch in the ON position.
3. Depress the brake pedal and push the R(Reverse) button.

To stay in N (Neutral) position when vehicle is Off



ONX4060004



ONX4E060021

If you want to keep the N (Neutral) position after the vehicle is OFF, do the following.

1. Release the parking brake when the engine is running or the Engine Start/ Stop button is ON position. If Auto Hold is activated, please turn off Auto Hold.
2. Push the N (neutral) button while depressing the brake pedal.
3. When you take your foot off the brake pedal, the message 'Press and hold OK button to stay in Neutral when vehicle is Off' (or 'Hold OK button to stay in neutral gear position when vehicle is Off') will appear on the cluster LCD display.
4. Press and hold the OK button on the steering wheel for more than 1 second.

5. When the message 'Vehicle will stay in (N). Change gear to cancel' appears on the cluster LCD display, press the Engine Start/Stop button while depressing the brake pedal.

However, if you open the driver's or front passenger's door, the gear will automatically shift to P (Park) and the Engine Start/ Stop button will change to the OFF position.

When the battery is discharged:

You cannot shift the shift button, when the battery is discharged.

In emergencies, do the following to move the shift button to N (Neutral) on a level ground.

1. Connect the battery cables from another vehicle or from another battery.

   For more details, refer to "Jump Starting" in chapter 8.
2. Release the parking brake with the Engine Start/Stop button in the ON position.
3. Shift the gear to the N(Neutral) position refer to the "Stay in Neutral when vehicle is Off" in this chapter.

Parking

Always come to a complete stop and continue to depress the brake pedal. Move the shift button into the P (Park) position, apply the parking brake, and place the Engine Start/Stop button in the OFF position. Take the Key with you when exiting the vehicle.

- The gear is shifted to P (Park) position automatically for safety under the following conditions.
  - When the driver unfasten the seat belt and open the driver's door in the "Stay in Neutral when vehicle is Off" condition or in the ignition ON
  - When turn off the engine with R (Reverse) / D (Drive) or N (Neutral) position

This is supplemental function for safety. Always check the P (Park) position is shifted.

WARNING

When you stay in the vehicle with the engine running, be careful not to depress the accelerator pedal for a long period of time. The engine or exhaust system may overheat and start a fire.

The exhaust gas and the exhaust system are very hot. Keep away from the exhaust system components.

Do not stop or park over flammable materials, such as dry grass, paper or leaves. They may ignite and cause a fire.

Cluster Display Message

- The actual message may differ from the following cluster display message.
- The application of the following message may vary according to the vehicle model.

Shifting conditions not met. Reduce speed, then shift

The warning message appears on the cluster display, when engine RPM is too high, or when driving speed is too fast to shift the gear.

Decrease the engine speed or slow down before shifting the gear.

Press brake pedal to change gear

The warning message appears on the cluster display, when the brake pedal is not depressed while shifting the gear.

Depress the brake pedal and then shift the gear.

Shift to P after stopping

The warning message appears on the cluster display, when the gear is shifted to P (Park) while the vehicle is moving.

Stop the vehicle before shifting to P (Park).

PARK engaged

Make sure that the vehicle is completely stopped before shifting to P (Park).

Push-button gear selector

If the gear selector is shifted to P (Park) while the vehicle is still moving, a warning message will appear in the cluster display.

Press and hold the OK button on the steering wheel to stay in Neutral

The warning message appears on the cluster display, when pushing the N(Neutral) button. If you want to stay N(Neutral) after turning off the engine, press and hold the “OK” button on the steering wheel more than 1 second.

Vehicle will stay in (N). Change gear to cancel

The warning message appears on the cluster display, when pushing the “OK” button on the steering wheel after the message (“Press and hold OK button to stay in Neutral when vehicle is Off”) appears on the cluster display. The gear stays in N(Neutral) position after turning off the engine.

NEUTRAL engaged

The message appears on the cluster display, when the N (Neutral) position is engaged.

Gear already selected

The message appears on the cluster display, when pushing the current shift button again.

Shift button held down

The warning message appears on the cluster display, when the shift button is pressed continuously or the shift button does not properly operate. Clean the surroundings of gear shift button.

If this message appears again, have the vehicle inspected by an authorized HYUNDAI dealer.

Shifter system malfunction! Service immediately

The warning message appears on the cluster display, when the transmission or the shift button does not properly operate in the P (Park) position.

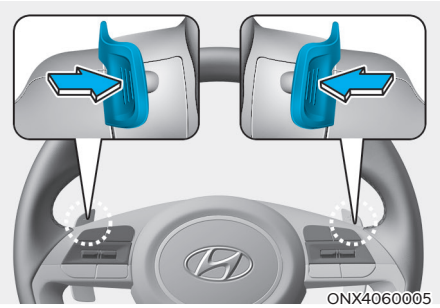
In this case, immediately have the vehicle inspected by an authorized HYUNDAI dealer.

Check shift controls

The warning message appears on the cluster display, when there is a malfunction with transmission shift button.

In this case, immediately have the vehicle inspected by an authorized HYUNDAI dealer.

Paddle Shifter



The paddle shifter is available when the shift button is in the D (Drive) position.

With the shift button in the D position

The paddle shift will operate in all speed areas.

Pull the [+] or [-] paddle shifter once to shift up or down one gear and the system changes from automatic mode to manual mode.

In the manual shift mode, pull the [+] or [-] paddle shifter once to shift up or down one gear.

To change back to automatic shift mode from manual shift mode, do one of the followings :

- Pull the [+] paddle shifter for more than one second
- Press the D button.

The manual shift mode also changes back to automatic shift mode in one of following situations

- When the accelerator pedal is gently depressed for more than 6 seconds while driving
- When the vehicle speed is less than 1mph

Information

If the [+] and [-] paddle shifters are pulled at the same time, gear shift may not occur.

Good Driving Practices

- Never move the shift button from P (Park) or N (Neutral) to any other position with the accelerator pedal depressed.
- Never move the shift button into P (Park) when the vehicle is in motion.

  Be sure the vehicle is completely stopped before you attempt to shift into R (Reverse) or D (Drive).
- Do not move the shift button to N (Neutral) when driving. Doing so may result in an accident because of a loss of engine braking and the transmission could be damaged.

- When driving uphill or downhill, always shift to D (Drive) for driving forward or shift to R (Reverse) for driving rearwards. After selecting D (Drive) or R (Reverse), check the gear position indicated on the cluster before driving. If the vehicle moves in the opposite direction of the selected gear, the engine may turn off and a serious accident might occur due to degraded brake performance. Never attempt to select a gear that is opposite to the direction of the vehicle motion.

  Stop the vehicle before changing to the desired gear.
- Do not drive with your foot resting on the brake pedal. Even light, but consistent pedal pressure can result in the brakes overheating, brake wear and possibly even brake failure.
- Always apply the parking brake when leaving the vehicle. Do not depend on placing the transmission in P (Park) to keep the vehicle from moving.
- Exercise extreme caution when driving on a slippery surface. Be especially careful when braking, accelerating or shifting gears. On a slippery surface, an abrupt change in vehicle speed can cause the drive wheels to lose traction and may cause loss of vehicle control resulting in an accident
- Optimum vehicle performance and economy is obtained by smoothly depressing and releasing the accelerator.

WARNING

To reduce the risk of SERIOUS INJURY or DEATH:

- **ALWAYS wear your seat belt. In a collision, an unbelted occupant is significantly more likely to be seriously injured or killed than a properly belted occupant.**
- **Avoid high speeds when cornering or turning.**
- **Do not make quick steering wheel movements, such as sharp lane changes or fast, sharp turns.**
- **The risk of rollover is greatly increased if you lose control of your vehicle at highway speeds.**
- **Loss of control often occurs if two or more wheels drop off the roadway and the driver over steers to reenter the roadway.**
- **In the event your vehicle leaves the roadway, do not steer sharply. Instead, slow down before pulling back into the travel lanes.**
- **HYUNDAI recommends you follow all posted speed limits.**

WARNING

- **Before leaving the driver's seat, always make sure the shift button is in the P (Park) position, set the parking brake, press the Engine Start/Stop button to the OFF position, and take the Smart Key with you.**

  Unexpected and sudden vehicle movement can occur if these precautions are not followed.
- **Do not drive with the shift button in N (Neutral). The engine brake will not work and may lead to an accident.**
- **Driving uphill or downhill, always shift to D (Drive) when driving forward or to R (Reverse) when driving backwards, and check the gear position indicated on the cluster before driving. If you drive in the opposite direction of the selected gear, the engine will turn off and a serious accident might be occurred due to the degraded brake performance.**

COASTING GUIDE (IF EQUIPPED)



OOSH069019L

The coasting guide function informs the driver when to take the foot off from the accelerator by anticipating a decelerating event* based on the analysis of driving routes and road conditions of the navigation. It encourages the driver to remove foot from the pedal and allow coasting down the road with EV motor only. This helps prevent unnecessary fuel consumption and increases fuel efficiency.

Information

Example of a deceleration event is making a right/left turn, driving through a rotary, entering or exiting a highway (freeway), etc.

Setting Coasting Guide function

Coasting Guide can be selected from the User Settings mode in the cluster LCD display or infotainment system display by following the procedure below.

1. Set the ignition switch in the ON position.
2. Select 'User Settings → Eco Vehicle → Coasting Guide' in the cluster LCD display or infotainment system display.

Operation conditions

After selecting the function from the User Settings mode, the system enters the ready status by following the procedure below.

1. Enter your destination information in the navigation system and select the driving route.
2. Check that the vehicle is in ECO mode by driving the vehicle in D (Drive).
3. Drive the vehicle between 25 mph(40 km/h)~100 mph(160 km/h).

Information

The operating speed may vary due to difference between instrument cluster and navigation effected by tire inflation level.

Information

Coasting guide is only a supplemental function to assist with fuel-efficient driving. Thus, the operating conditions may be different in accordance with traffic/road conditions (for example, driving in a traffic jam, driving on a slope, driving on a curve). Take the actual driving conditions into consideration, such as distances from the vehicles ahead/behind, while referring to the coasting guide function as guidance.

BRAKING SYSTEM

Power Brakes

Your vehicle has power-assisted brakes that adjust automatically through normal usage.

In the event of a vehicle power failure, the power assist for the brakes will not work. You can still stop your vehicle, but it will require greater force and increased pedal travel than normal. The stopping distance, however, will be longer than with power brakes.

Information

- **When the brake pedal is depressed under certain driving conditions or weather conditions, you may temporarily hear a noise. This is normal and does not indicate a problem with your brakes.**
- **While driving on a road with deicing chemicals, brake noise or abnormal tire wear may occur due to deicing chemicals. In a safe traffic condition, additionally apply the brakes to remove deicing chemicals on the brake discs and pads.**

WARNING

Take the following precautions:

- **Do not drive with your foot resting on the brake pedal. This will create abnormal high brake temperatures, excessive brake lining and pad wear, and increased stopping distances.**
- **When descending down a long or steep hill, downshift to a lower gear in order to control your speed without using the brake pedal excessively. Applying the brakes continuously will cause the brakes to overheat and could result in a temporary loss of braking performance.**
- **Wet brakes may impair the vehicle's ability to safely slow down; the vehicle may also pull to one side when the brakes are applied. Applying the brakes lightly will indicate whether they have been affected in this way. Always test your brakes in this fashion after driving through deep water. To dry the brakes, lightly tap the brake pedal to heat up the brakes while maintaining a safe forward speed until brake performance returns to normal. Avoid driving at high speeds until the brakes function correctly.**

NOTICE

- **Do not continue depressing the brake pedal if the "" indicator is OFF. The battery may be discharged.**
- **Noise and vibration generated during braking is normal.**
- **Under normal operation, electric brake pump noise and motor vibration may occur temporarily in below cases.**
  - **When the pedal is depressed suddenly.**
  - **When the pedal is repeatedly depressed in short intervals.**
  - **When the ABS function is activated while braking.**

Disc Brakes Wear Indicator

When your brake pads are worn and new pads are required, you will hear a high pitched warning sound from your front or rear brakes. You may hear this sound come and go or it may occur whenever you depress the brake pedal.

NOTICE

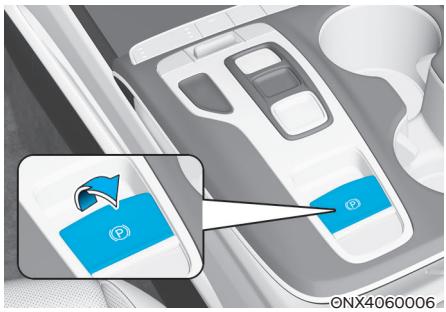
To avoid costly brake repairs, do not continue to drive with worn brake pads.

Information

Always replace brake pads as complete front or rear axle sets.

Electronic Parking Brake (EPB)

Applying the parking brake



To apply EPB (Electronic Parking Brake):

1. Depress and hold the brake pedal.
2. Pull up the EPB switch.

Make sure the Parking Brake Warning Light comes on.

EPB (Electronic Parking Brake) may be automatically applied when:

- Requested by other systems
- The driver turns the vehicle off while Auto Hold is operating.

Emergency braking

If there is a problem with the brake pedal while driving, emergency braking is possible by pulling up and holding the EPB switch. Braking is possible only while you are holding the EPB switch. However, braking distance will be longer than normal.

WARNING

To reduce the risk of SERIOUS INJURY or DEATH, do not operate the EPB while the vehicle is moving except in an emergency situation. It could damage the brake system and lead to an accident.

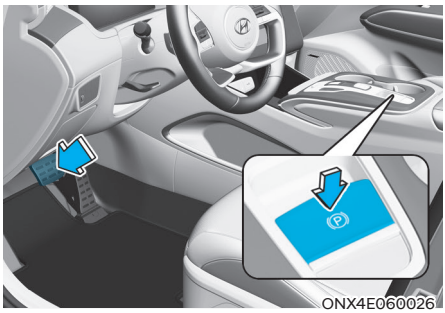
Information

During emergency braking, the Parking Brake warning light will illuminate to indicate that the system is operating.

NOTICE

If you continuously notice a noise or burning smell when the EPB is used for emergency braking, have the system checked by an authorized HYUNDAI dealer.

Releasing the parking brake



To release EPB (Electronic Parking Brake):

- Place the ignition switch in the ON position.
- Depress the brake pedal.
- Press the EPB switch.

Make sure the Parking Brake Warning Light goes off.

To release EPB (Electronic Parking Brake) automatically:

- Gear in P (Park)

With the engine running depress the brake pedal and shift out of P (Park) to R (Reverse) or D (Drive).

- Gear in N (Neutral)

With the engine running depress the brake pedal and shift out of N (Neutral) to R (Reverse) or D (Drive).

- Satisfy the following conditions

1. Ensure seat belts are fastened and the doors, hood and liftgate are closed.
2. With the engine running, depress the brake pedal and shift out of P (Park) to R (Reverse), D (Drive) or Manual shift mode.
3. Depress the accelerator pedal.

   Make sure the Parking Brake warning light goes off.

Information

- **For your safety, you can engage EPB even though the Engine Start/Stop button is in the OFF position (only if battery power is available), but you cannot release it.**
- **For your safety, depress the brake pedal and release the parking brake manually with the EPB switch when you drive downhill or when backing up the vehicle.**

NOTICE

- **If the parking brake warning light is still on even though the EPB has been released, have the system checked by an authorized HYUNDAI dealer.**
- **Do not drive your vehicle with EPB applied. It may cause excessive brake pad and brake rotor wear.**

Warning messages



OTMH060006N

To release EPB, fasten seatbelt, close door, hood and liftgate

- When you try to drive with the EPB applied, a warning will sound and a message will appear.
- If the driver's seat belt is unfastened and the engine hood or liftgate is opened, a warning will sound and a message will appear.
- When there is a problem with the vehicle, a warning may sound and a message may appear.

If the situation occurs, depress the brake pedal and release EPB by pressing the EPB switch.

WARNING

- **Whenever leaving the vehicle or parking, always come to a complete stop and continue to depress the brake pedal.**

  Move the shift button into the P (Park) position, pull up the EPB switch, and set the Engine Start/Stop button to the OFF position.

  Take the key with you when exiting the vehicle.

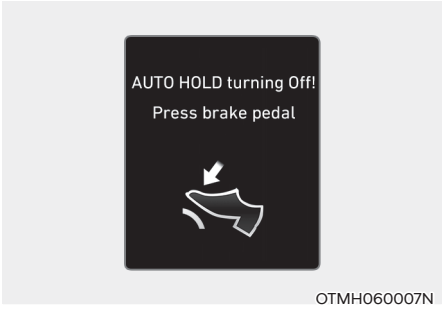
  Vehicles not fully engaged in P (Park) with the parking brake set are at risk for moving inadvertently and causing injury to yourself or others.
- **NEVER allow anyone who is unfamiliar with the vehicle to touch the EPB switch. If the EPB is released unintentionally, serious injury may occur.**
- **Only release the EPB when you are seated inside the vehicle with your foot firmly on the brake pedal.**

NOTICE

- **Do not apply the accelerator pedal while the parking brake is engaged. If you depress the accelerator pedal with the EPB engaged, a warning will sound and a message will appear. Damage to the parking brake may occur.**
- **Driving with the parking brake on can overheat the braking system and cause premature wear or damage to brake parts. Make sure the EPB is released and the Parking Brake Warning Light is off before driving.**

Information

- **A clicking sound may be heard while operating or releasing the EPB. These conditions are normal and indicate that the EPB is functioning properly.**
- **When leaving your keys with a parking attendant or assistant, make sure to inform him/her how to operate the EPB.**



OTMH060007N

AUTO HOLD turning Off!
Press brake pedal

When the conversion from Auto Hold to EPB is not working properly a warning will sound and a message will appear.



OJX1069028L

Parking brake automatically engaged

If EPB is applied while Auto Hold is activated, a warning will sound and a message will appear.

EPB malfunction

Electronic Parking Brake (EPB) warning light illuminates if the Engine Start/Stop button is pressed to the ON position and goes off in approximately 3 seconds if the system is operating normally.

If the EPB warning light remains on, comes on while driving, or does not come on when the Engine Start/Stop button is pressed to the ON position, this indicates that the EPB may have malfunctioned.

If this occurs, we recommend that you have the system checked by an authorized HYUNDAI dealer.

The EPB warning light may illuminate when the ESC indicator comes on to indicate that ESC is not working properly, but it does not indicate a malfunction of EPB.

NOTICE

- **If the EPB warning light is still on, have the system checked by an authorized HYUNDAI dealer.**
- **If the parking brake warning light does not illuminate or blinks even though the EPB switch was pulled up, EPB may not be applied.**
- **If the parking brake warning light blinks when the EPB warning light is on, press the switch, and then pull it up. Repeat this one more time. If the EPB warning does not go off, have the system checked by an authorized HYUNDAI dealer.**

Parking brake warning light

Check the Parking Brake warning light by pressing the Engine Stop/Start button to the ON position (indicator off).

This light will be illuminated when the parking brake is applied with the Engine Stop/Start button in the START or ON position.

Before driving, be sure the parking brake is released and the Brake Warning Light is OFF.

If the Parking Brake Warning Light remains on after the parking brake is released while the vehicle is in the ready ( ) mode, there may be a malfunction in the brake system. Immediate attention is necessary.

If at all possible, cease driving the vehicle immediately. If that is not possible, use extreme caution while operating the vehicle and only continue to drive the vehicle until you can reach a safe location.

Electronic Parking Brake (EPB) Malfunction

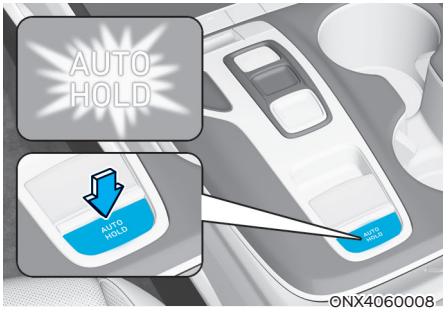
If the Electronic Parking Brake (EPB) does not release normally, DO NOT DRIVE THE VEHICLE. Have your vehicle inspected at an authorized HYUNDAI dealer.

It is recommended to have your vehicle towed on a flatbed tow truck if the EPB malfunction occurs.

Auto Hold

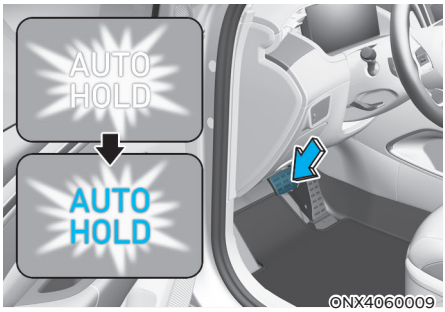
The Auto Hold maintains the vehicle in a standstill even though the brake pedal is not depressed after the driver brings the vehicle to a complete stop by depressing the brake pedal.

To apply:



ONX4060008

1. With the driver's door, engine hood and liftgate closed, then press the [AUTO HOLD] switch. The white AUTO HOLD indicator will come on and the system will be in the standby position.



2. When you stop the vehicle completely by depressing the brake pedal, the Auto Hold maintains the brake pressure to hold the vehicle stationary. The indicator changes from white to green.
3. The vehicle will remain stationary even if you release the brake pedal.
4. If EPB is applied, Auto Hold will be released.

To release:

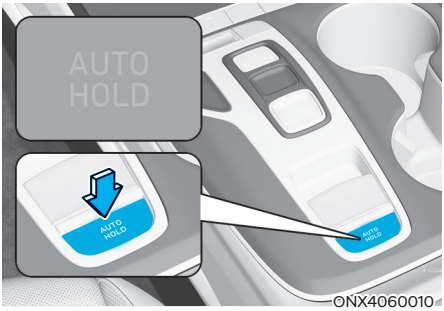
If you depress the accelerator pedal with the shift button in D (Drive) or R (Reverse) or Manual shift mode, the Auto Hold will be released automatically and the vehicle will start to move. The indicator changes from green to white.

WARNING

When the AUTO HOLD is automatically released by depressing the accelerator pedal, always take a look around your vehicle.

Slowly depress the accelerator pedal for a smooth start.

To cancel:



1. Depress the brake pedal.
2. Press the [AUTO HOLD] switch.

The AUTO HOLD indicator will turn off.

WARNING

To prevent, unexpected and sudden vehicle movement, ALWAYS press your foot on the brake pedal to cancel the Auto Hold before you:

- **Drive downhill.**
- **Drive the vehicle in R (Reverse).**
- **Park the vehicle.**

Information

- The Auto Hold does not operate when:
  - The driver's door is opened
  - The engine hood is opened
  - The shift button is in P (Park)
  - EPB is applied
  - The shift button is in R (Reverse) when liftgate is opened
  - The liftgate is opened(vehicle equipped with shift button)
- For your safety, the Auto Hold automatically switches to EPB when:
  - The driver's door is opened
  - The engine hood is opened
  - The vehicle is in a standstill for more than 10 minutes
  - The vehicle is standing on a steep slope
  - The vehicle moved several times
  - The shift button is in R (Reverse) when liftgate is opened

  In these cases, the parking brake warning light comes on, the AUTO HOLD indicator changes from green to white, and a warning sound and a message will appear to inform you that EPB has been automatically engaged. Before driving off again, depress the brake pedal, check the surrounding area near your vehicle and release the parking brake manually with the EPB switch.
- While operating Auto Hold, you may hear mechanical noise. However, it is normal operating noise.

NOTICE

If the AUTO HOLD indicator changes to yellow, the Auto Hold is not working properly. Contact an authorized HYUNDAI dealer.

WARNING

- Depress the accelerator pedal slowly when you start the vehicle.
- For your safety, cancel the Auto Hold when you drive downhill, back up the vehicle or park the vehicle.

NOTICE

If there is a malfunction with the driver's door or engine hood open detection system, the Auto Hold may not work properly.

Contact an authorized HYUNDAI dealer.

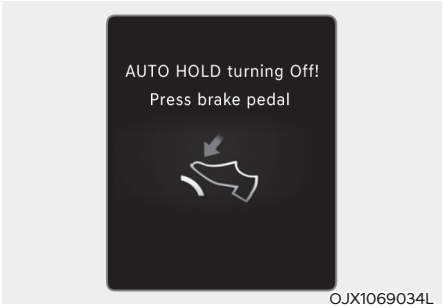
Warning messages



OJX1069028L

Parking brake automatically engaged

When the EPB is applied from Auto Hold, a warning will sound and a message will appear.

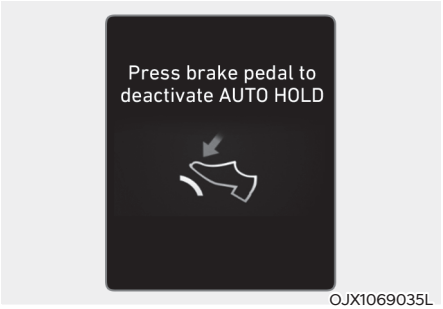


OJX1069034L

AUTO HOLD turning off! Press brake pedal

When the conversion from Auto Hold to EPB is not working properly a warning will sound and a message will appear.

When this message is displayed, the Auto Hold and EPB may not operate. For your safety, depress the brake pedal.



OJX1069035L

Press brake pedal to deactivate AUTO HOLD

If you did not apply the brake pedal when you release the Auto Hold by pressing the [AUTO HOLD] switch, a warning will sound and a message will appear.



OTMH060008N

AUTO HOLD conditions not met. Close door, hood, and liftgate

When you press the [AUTO HOLD] switch, if the driver's door and engine hood are not closed, a warning will sound and a message will appear on the cluster LCD display.

Press the [AUTO HOLD] switch after closing the driver's door and hood.

Anti-lock Brake System (ABS)

WARNING

An Anti-Lock Braking System (ABS) or an Electronic Stability Control (ESC) system will not prevent accidents due to improper or dangerous driving maneuvers. Even though vehicle control is improved during emergency braking, always maintain a safe distance between you and objects ahead of you. Vehicle speeds should always be reduced during extreme road conditions. The braking distance for vehicles equipped with ABS or ESC may be longer than for those without these systems in the following road conditions.

Drive your vehicle at reduced speeds during the following conditions:

- **Rough, gravel or snow-covered roads.**
- **On roads where the road surface is pitted or has different surface height.**
- **Tire chains are installed on your vehicle.**

The safety features of an ABS or ESC equipped vehicle should not be tested by high speed driving or cornering. This could endanger the safety of yourself or others.

ABS is an electronic braking system that helps prevent a braking skid. ABS allows the driver to steer and brake at the same time.

Using ABS

To obtain the maximum benefit from your ABS in an emergency situation, do not attempt to modulate your brake pressure and do not try to pump your brakes. Depress your brake pedal as hard as possible.

When you apply your brakes under conditions which may lock the wheels, you may hear sounds from the brakes, or feel a corresponding sensation in the brake pedal. This is normal and it means your ABS is active.

ABS does not reduce the time or distance it takes to stop the vehicle.

Always maintain a safe distance from the vehicle in front of you.

ABS will not prevent a skid that results from sudden changes in direction, such as trying to take a corner too fast or making a sudden lane change. Always drive at a safe speed for the road and weather conditions.

ABS cannot prevent a loss of stability. Always steer moderately when braking hard. Severe or sharp steering wheel movement can still cause your vehicle to veer into oncoming traffic or off the road.

On loose or uneven road surfaces, operation of the anti-lock brake system may result in a longer stopping distance than for vehicles equipped with a conventional brake system.

The ABS warning light (ABS) will stay on for several seconds after the Engine Start/Stop button is in the ON position.

During that time, the ABS will go through self-diagnosis and the light will go off if everything is normal. If the light stays on, you may have a problem with your ABS. Contact an authorized HYUNDAI dealer as soon as possible.

WARNING

If the ABS warning light ((ABS)) is on and stays on, you may have a problem with the ABS. Your power brakes will work normally. To reduce the risk of serious injury or death, contact your HYUNDAI dealer as soon as possible.

NOTICE

When you drive on a road having poor traction, such as an icy road, and apply your brakes continuously, the ABS will be active continuously and the ABS warning light ((ABS)) may illuminate. Pull your vehicle over to a safe place and turn the vehicle off.

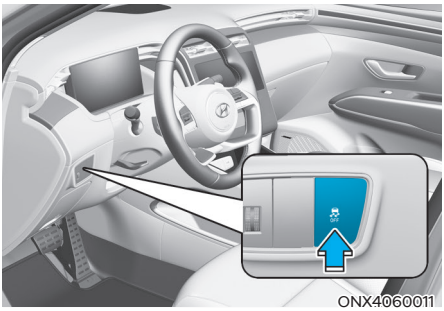
Restart the vehicle. If the ABS warning light is off, then your ABS system is normal.

Otherwise, you may have a problem with your ABS system. Contact an authorized HYUNDAI dealer as soon as possible.

Information

When you jump start your vehicle because of a drained battery, the ABS warning light ((ABS)) may turn on at the same time. This happens because of the low battery voltage. It does not mean your ABS is malfunctioning. Have the battery recharged before driving the vehicle.

Electronic Stability Control (ESC)



Electronic Stability Control system helps to stabilize the vehicle during cornering maneuvers.

ESC checks where you are steering and where the vehicle is actually going. ESC applies braking pressure to any one of the vehicle's brakes and intervenes in the engine management system to assist the driver with keeping the vehicle on the intended path. It is not a substitute for safe driving practices. Always adjust your speed and driving to the road conditions.

WARNING

Never drive too fast for the road conditions when cornering. The ESC system will not prevent accidents.

Excessive speed in turns, abrupt maneuvers, and hydroplaning on wet surfaces can result in severe accidents.

ESC operation

ESC ON condition

When the Engine Start/Stop button is in the ON position, the ESC and the ESC OFF indicator lights illuminate for approximately three seconds. After both lights go off, the ESC is enabled.

When operating



When the ESC is in operation, the ESC indicator light blinks:

- When you apply your brakes under conditions which may lock the wheels, you may hear sounds from the brakes, or feel a corresponding sensation in the brake pedal. This is normal and it means your ESC is active.
- When ESC activates, the engine may not respond to the accelerator as it does under routine conditions.
- If Cruise Control was in use when the ESC activates, Cruise Control automatically disengages. Cruise Control can be reengaged when the road conditions allow. **See “Cruise Control (CC)” section in chapter 7 (if equipped).**
- When moving out of the mud or driving on a slippery road, the engine RPM (revolutions per minute) may not increase even if you press the accelerator pedal deeply. This is to maintain the stability and traction of the vehicle and does not indicate a problem.

ESC OFF condition



To cancel ESC operation:

- State 1

Press the ESC OFF button briefly. The ESC OFF indicator light and/or message “Traction Control disabled” will illuminate. In this state, the traction control function of ESC (engine management) is disabled, but the brake control function of ESC (braking management) still operates.

- State 2

Press and hold the ESC OFF button continuously for more than 3 seconds. The ESC OFF indicator light and/or message “Traction & Stability Control disabled” illuminates and a warning chime sounds. In this state, both the traction control function of ESC (engine management) and the brake control function of ESC (braking management) are disabled.

If the Engine Start/Stop button is placed in the OFF position when ESC is off, ESC remains off. Upon restarting the vehicle, ESC will automatically turn on again.

Indicator lights

■ ESC indicator light (blinks)



■ ESC OFF indicator light (comes on)



When the Engine Start/Stop button is placed to the ON position, the ESC indicator light illuminates, then goes off if the ESC system is operating normally.

The ESC indicator light blinks whenever the ESC is operating.

If the ESC indicator light stays on, your vehicle may have a malfunction with the ESC system. When this warning light illuminates, have the vehicle checked by an authorized HYUNDAI dealer as soon as possible.

The ESC OFF indicator light comes on when ESC is turned off.

WARNING

When ESC is blinking, this indicates ESC is active:

Drive slowly and NEVER attempt to accelerate. NEVER turn ESC off while ESC indicator light is blinking or you may lose control of the vehicle resulting in an accident.

NOTICE

Driving with wheels and tires with different sizes may cause the ESC system to malfunction. Before replacing tires, make sure all four tires and wheels are the same size. Never drive the vehicle with different sized wheels and tires installed.

ESC OFF usage

When Driving

The ESC OFF mode should only be used briefly to help free the vehicle if stuck in snow or mud, by temporarily stopping operation of ESC, to maintain wheel torque.

To turn ESC off while driving, press the ESC OFF button while driving on a flat road surface.

NOTICE

To prevent damage to the transmission:

- **Do not allow wheel(s) of one axle to spin excessively while the ESC, ABS, and parking brake warning lights are displayed. The repairs would not be covered by the vehicle warranty. Reduce engine power and do not spin the wheel(s) excessively while these lights are displayed.**
- **When operating the vehicle on a dynamometer, make sure the ESC is turned off (ESC OFF light illuminated).**

Information

Turning the ESC off does not affect ABS or standard brake system operation.

Vehicle Stability Management (VSM)

Vehicle Stability Management is a function of the Electronic Stability Control (ESC) system. It helps the vehicle stay stable when accelerating or braking suddenly on wet, slippery and rough roads where traction over the four tires can suddenly become uneven.

WARNING

Take the following precautions when using Vehicle Stability Management :

- **ALWAYS check the speed and the distance to the vehicle ahead. VSM is not a substitute for safe driving practices.**
- **Never drive too fast for the road conditions. VSM system will not prevent accidents. Excessive speed in bad weather, on slippery and uneven roads can result in severe accidents.**

VSM operation

VSM ON condition

VSM operates when:

Electronic Stability Control (ESC) is on.

When operating

When you apply your brakes under conditions which may activate ESC, you may hear sounds from the brakes, or feel a corresponding sensation in the brake pedal. This is normal and it means your VSM is active.

Information

The VSM does not operate when:

- **Driving on a banked road such as gradient or incline.**
- **Driving in reverse.**
- **The ESC OFF indicator light is on.**
- **The MDPS (Motor Driven Power Steering) warning light ( ) is on or blinks.**

VSM OFF condition

To cancel VSM operation, press the ESC OFF button. ESC OFF indicator light (OFF) will illuminate.

To turn on VSM, press the ESC OFF button again. The ESC OFF indicator light will go out.

WARNING

If the ESC indicator light ( ) or MDPS warning light ( ) stays illuminated or blinks, your vehicle may have a malfunction with the VSM system. When the warning light illuminates have the vehicle checked by an authorized HYUNDAI dealer as soon as possible.

NOTICE

Driving with wheels and tires with different sizes may cause the VSM system to malfunction. Before replacing tires, make sure all four tires and wheels are the same size. Never drive the vehicle with different sized tires and wheels installed.

Hill-Start Assist Control (HAC)

Hill-Start Assist Control helps prevent the vehicle from rolling backwards when starting a vehicle from a stop on a hill. The system operates the brakes automatically for approximately 2 seconds (maximum of 5 seconds when the accelerator pedal is slightly depressed during HAC operation) and releases the brake after 2 seconds or when the accelerator pedal is depressed.

WARNING

Always be ready to depress the accelerator pedal when starting off an incline. Hill-Start Assist Control activates only for approximately 2 seconds (maximum of 5 seconds when the accelerator pedal is slightly depressed during HAC operation).

Information

- **Hill-Start Assist Control does not operate when the gear is shifted to P (Park) or N (Neutral).**
- **Hill-Start Assist Control activates even when the ESC (Electronic Stability Control) is off. However, it does not activate, when ESC does not operate normally.**

Trailer Stability Assist (TSA)

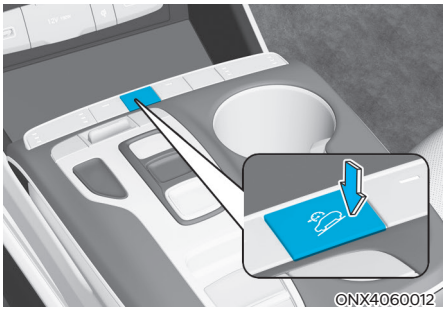
Trailer stability assist is operated as a vehicle stability control system. The Trailer stability assist system stabilizes the vehicle and trailer when the trailer sways or oscillates. There are various reasons making vehicle sway and oscillate. In most cases it happens at high speed however, if the trailer is affected by crosswinds, buffeting, and improper overloading, it may also be at risk for sway.

Factors of swaying such as:

- High speed
- Strong crosswinds
- Improper overloading
- Sudden controlling of steering wheel
- Uneven road

Trailer stability assist system continuously analyzes the vehicle and trailer instability. When the Trailer stability assist system detects some sway, the brakes are applied automatically to help stabilize the vehicle on the front wheel. However, if it is not enough to stabilize, the brakes are applied on all wheels automatically and engine power is properly reduced. When the vehicle is stable from swaying, trailer stability assist system does not operate.

Downhill Brake Control (DBC)



Downhill Brake Control assists the driver to descend down a steep hill without having to depress the brake pedal.

The system automatically applies the brakes to maintain vehicle speed below a certain speed and allows the driver to concentrate on steering the vehicle down hill.

The system is turned off whenever the engine is turned off.

Press the button to turn on the system and press the button again to turn it off.

System operation

Mode	Indicator	Description
Standby	 Green light on	Press the Downhill Brake Control button when vehicle speed is under 37 mph (60 km/h). Downhill Brake Control will turn on and enter the standby mode. The system does not turn on if vehicle speed is over 37 mph (60 km/h).
Activated	 Green light blink	In the standby mode, Downhill Brake Control will activate under the following conditions: • The hill is steep enough. • The brake pedal or accelerator pedal is not depressed. • Vehicle speed is within 0~25 mph (0~40km/h) range. Within the activation speed range 2~25 mph (4~40 km/h), the driver can control the vehicle speed by depressing the brake pedal or accelerator pedal.
Deactivated	 Green light off	Downhill Brake Control will turn off under the following conditions: • The Downhill Brake Control button is pressed again. • Vehicle speed is over 37 mph (60 km/h).
	 Green light on	Downhill Brake Control will be deactivated but maintain the standby mode under the following conditions: • The hill is not steep enough. • Vehicle speed is between 25~37 mph (40~60 km/h).
System malfunction	 Yellow light on	The yellow warning light illuminates when the system may have malfunctioned or may not work properly during activation. If this occurs, Downhill Brake Control is deactivated. Have the system inspected by an authorized HYUNDAI dealer as soon as possible.



OJX1069039L

Downhill Brake Control disabled. Control vehicle speed (manually)

When Downhill Brake Control is not working properly this warning message will appear on the cluster LCD display and you will hear a warning sound. If this occurs, control vehicle speed by depressing the brake pedal.

WARNING

Always turn off Downhill Brake Control on normal roads. The system might activate inadvertently from the standby mode when driving through speed bumps or making sharp curves.

Information

- **Downhill Brake Control may not deactivate on steep inclines even though the brake pedal or accelerator pedal is depressed.**
- **Downhill Brake Control may not always maintain vehicle speed at a certain speed.**
- **Downhill Brake Control does not operate when:**
  - **The gear is in P (Park).**
  - **ESC is activated.**
- **Noise or vibration may occur from the brakes when Downhill Brake Control is activated.**
- **The rear stop light comes on when Downhill Brake Control is activated.**

Good Braking Practices

WARNING

Whenever leaving the vehicle or parking, always come to a complete stop and continue to depress the brake pedal. Move the shift button into the P (Park) position, then apply the parking brake, and set the Engine Start/Stop button in the OFF position.

Vehicles parked with the parking brake not applied or not fully engaged may roll inadvertently and may cause injury to the driver and others. ALWAYS apply the parking brake before exiting the vehicle.

Wet brakes can be dangerous! The brakes may get wet if the vehicle is driven through standing water or if it is washed. Your vehicle will not stop as quickly if the brakes are wet. Wet brakes may cause the vehicle to pull to one side.

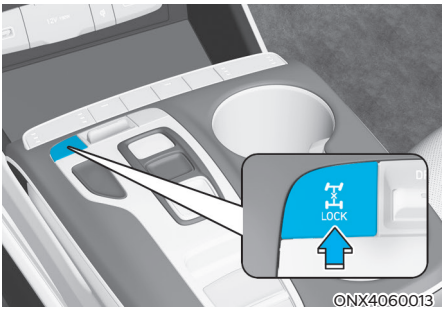
To dry the brakes, apply the brakes lightly until the braking action returns to normal. If the braking action does not return to normal, stop as soon as it is safe to do so and call an authorized HYUNDAI dealer for assistance.

DO NOT drive with your foot resting on the brake pedal. Even light, but constant pedal pressure can result in the brakes overheating, brake wear, and possibly even brake failure.

If a tire goes flat while you are driving, apply the brakes gently and keep the vehicle pointed straight ahead while you slow down. When you are moving slowly enough for it to be safe to do so, pull off the road and stop in a safe location.

Keep your foot firmly on the brake pedal when the vehicle is stopped to prevent the vehicle from rolling forward.

ALL WHEEL DRIVE (AWD)



All Wheel Drive (AWD) delivers engine power to front and rear wheels for maximum traction. AWD is useful when extra traction is required, such as when driving on, muddy, wet, or snow-covered roads.

Occasional off-road use such as established unpaved roads and trails are OK. It is always important that the driver carefully reduces the speed to a level that does not exceed the safe operating speed for those conditions.

WARNING

To reduce the risk of SERIOUS INJURY or DEATH:

- **Do not drive in conditions that exceed the vehicles intended design such as challenging off-road conditions.**
- **Avoid high speeds when cornering or turning.**
- **Do not make quick steering wheel movements, such as sharp lane changes or fast, sharp turns.**
- **The risk of a rollover is greatly increased if you lose control of your vehicle at highway speeds.**
- **Loss of control often occurs if two or more wheels drop off the roadway and the driver over steers to reenter the roadway.**
- **In the event your vehicle leaves the roadway, do not steer sharply. Instead, slow down before pulling back into the travel lanes.**

NOTICE

- **Do not drive in water if the level is higher than the bottom of the vehicle.**
- **Check your brake condition once you are out of mud or water. Depress the brake pedal several times as you move slowly until you feel normal braking return.**
- **Shorten your scheduled maintenance interval if you drive in off-road conditions such as sand, mud or water (see "Maintenance Under Severe Usage Conditions" section in chapter 9).**
- **Always wash your vehicle thoroughly after off road use, especially the bottom of the vehicle.**
- **Be sure to equip the vehicle with four tires of the same size and type.**
- **Make sure that a full time AWD vehicle is towed by a flat bed tow truck.**

All Wheel Drive (AWD) Operation

All Wheel Drive (AWD) mode selection

Transfer mode	Selection mode	Indicator light	Description
AWD AUTO (AWD LOCK is deactivated)		LOCK (not illuminated)	• AWD Auto is used when driving on roads in normal conditions, roads in urban areas, and on highways. • All wheels are in operation when a vehicle travels at a constant speed. Required tractions applying on front and rear wheels vary depending on road driving conditions and driving conditions, which will be automatically controlled by the computing system. • When the cluster's AWD Auto display mode is selected, the cluster displays the status of how four wheels' traction forces are distributed.
AWD LOCK		LOCK (illuminated)	• The main goal of AWD Lock mode is to allow a driver to maximize the vehicle's traction under extreme driving conditions such as unpaved off-road, sandy roads, and muddy roads. • AWD Lock mode is in operation only when a vehicle travels at 37 miles or less. When traveling at 37 miles or faster, the mode will switch to AWD Auto. • When AWD Lock mode illuminates, the cluster does not display the front/rear wheel traction force distribution status. • Press the AWD Lock mode switch again to switch back to AWD Auto.

WARNING

If AWD warning light ( ) stays on the instrument cluster, your vehicle may have a malfunction with the AWD system. When the AWD warning light ( ) illuminates have vehicle checked by an authorized HYUNDAI dealer as soon as possible.

NOTICE

- **Maintain AWD Auto mode when driving on roads in normal conditions.**
- **When driving under normal road conditions (especially when cornering) in AWD Lock mode, a driver may find minor mechanical vibration or noise, which is extremely normal phenomenon, not a malfunction. When AWD Lock mode is released, such noise or vibration will be immediately gone.**

CAUTION

When driving on normal roads, deactivate the AWD LOCK mode by pushing the AWD LOCK button (AWD LOCK indicator light goes off). Driving on normal roads with the AWD LOCK mode, especially, when cornering may cause mechanical noise or vibration. The noise and vibration will disappear when the AWD LOCK mode is deactivated. Prolonged driving with the noise and vibration may damage some parts of the power train.

NOTICE

When the AWD LOCK mode is deactivated, a sensation may be felt as the driving power is delivered entirely to the front wheels.

Auto All Wheel Drive mode (normal driving)

If the AWD system determines there is a need for four wheel drive, the engine's driving power is distributed to all four wheels automatically.

For safe AWD operation

Before driving

- Make sure all passengers are wearing seat belts.
- Sit upright and closer to the steering wheel than usual. Adjust the steering wheel to a position comfortable for you to drive.

Driving on snow-covered or icy roads

- Start off slowly by applying the accelerator pedal gently.
- Use snow tires or tire chains.
- Keep sufficient distance between your vehicle and the vehicle in front of you.
- Apply engine braking during deceleration by using the paddle shifter (manual shift mode) and manually selecting a lower gear.
- Avoid speeding, rapid acceleration, sudden brake applications, and sharp turns to prevent skids.

Information

When using Snow Tires, mount them on all four wheels.

If a full set of chains is not available for an AWD vehicle when using tire chains, chains may be installed on the front wheels only.

For more details on Snow Tires and Tire Chains, refer to "Winter Driving" section later in this chapter.

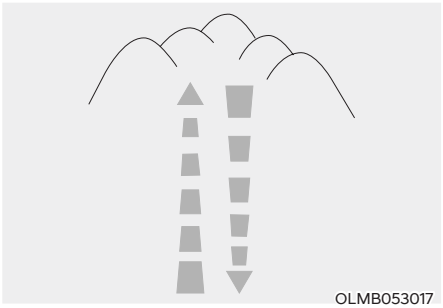
Driving in sand or mud

- Maintain slow and constant speed.
- Use tire chains driving in mud if necessary.
- Keep sufficient distance between your vehicle and the vehicle in front of you.
- Reduce vehicle speed and always check the road condition.
- Avoid speeding, rapid acceleration, sudden brake applications, and sharp turns to prevent getting stuck.

NOTICE

When the vehicle is stuck in snow, sand or mud, place a nonslip material under the drive wheels to provide traction OR slowly spin the wheels in forward and reverse directions which causes a rocking motion that may free the vehicle.

However, avoid running the engine continuously at high RPM, doing so may damage the AWD system.


OLMB053017

Driving up or down hills

- Driving uphill
  - Before starting off, check if it is possible to drive uphill.
  - Drive as straight as possible.
- Driving downhill
  - Do not change gear while driving downhill. Select gear before driving downhill.
  - Drive as slowly using engine braking while driving downhill.
  - Drive straight as possible.

WARNING

Exercise extreme caution driving up or down steep hills. The vehicle may flip over depending on the grade, terrain, water and mud conditions.


OLMB053018

WARNING

Do not drive across the contour of steep hills. A slight change in the wheel angle can destabilize the vehicle, or a stable vehicle may lose stability if the vehicle stops its forward motion. Your vehicle may roll over and lead to a serious injury or death.

Driving through water

- Try to avoid driving in deep standing water. It may stall your engine and clog your exhaust pipes.
- If you need to drive in water, stop your vehicle, set the vehicle in Multi Terrain mode and drive under 5 mph (8 km/h).
- Do not change gear while driving in water.

CAUTION

Always drive slowly in water. If you drive too fast, water may get into the engine compartment and wet the ignition system causing your vehicle to suddenly stop.

Additional driving conditions

- Become familiar with the off-road conditions before driving.
- Always pay attention when driving off-road and avoid dangerous areas.
- Drive slowly when driving in heavy wind.
- Reduce vehicle speed when cornering. The center of gravity of AWD vehicles is higher than conventional 2WD vehicles, making them more likely to roll over when you rapidly turn corners.
- Always hold the steering wheel firmly when you are driving off-road.

WARNING

Do hold the steering wheel tightly when you are driving off-road. You may hurt your arm by a sudden steering maneuver or from steering wheel rebound due to an impact with objects on the ground. You could lose control of the steering wheel which may lead to serious injury or death.

Emergency Precautions

Tires

When replacing tires, be sure to equip all four tires with the same size, type, tread patterns, brand and load-carrying capacity.

WARNING

Do not use tire and wheel with different size and type from the one originally installed on your vehicle. It can affect the safety and performance of your vehicle, which could lead to steering failure or rollover causing serious injury.

In an emergency situation, a compact spare tire (if equipped) or Tire Mobility Kit (if equipped) may be used. But, do not use the compact spare tire continuously. Repair or replace the original tire as soon as possible to avoid failure of the differential or AWD system.

WARNING

Never start or run the engine while an AWD vehicle is raised on a jack. The vehicle can slip or roll off of a jack causing serious injury or death to you or those nearby.

Towing

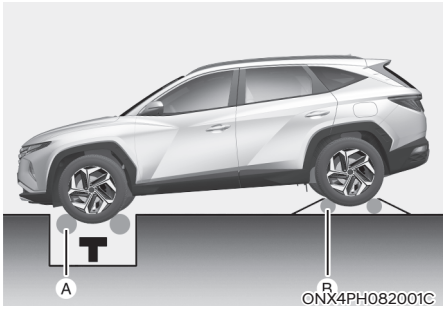
AWD vehicles must be towed with a wheel lift and dollies or flatbed equipment with all the wheels off the ground. **For more details, refer to "Towing" section in chapter 8.**

Vehicle inspection

- If the vehicle needs to be operated on a vehicle lift do not attempt to stop any of the four wheels from turning. This could damage the AWD system.
- Never engage the parking brake while running the engine on a car lift. This may damage the AWD system.

Dynamometer testing

An AWD vehicle must be tested on a special four wheel chassis dynamometer.



[A] : Roll tester (Speedometer),
[B] : Temporary free roller

A AWD vehicle should not be tested on a 2WD roll tester. If a 2WD roll tester must be used, perform the following procedure:

1. Check the tire pressures recommended for your vehicle.
2. Place the front wheels on the roll tester for a speedometer test as shown in the illustration.
3. Release the parking brake.
4. Place the rear wheels on the temporary free roller as shown in the illustration.

CAUTION

- **Never engage the parking brake while performing the test.**
- **When the vehicle is lifted up, do not operate the front and rear wheel separately. All four wheels should be operated.**

WARNING

Keep away from the front of the vehicle while the vehicle is in gear on the dynamometer. The vehicle can jump forward and cause serious injury or death.

Reducing the Risk of a Rollover

Your multi-purpose passenger vehicle is defined as a Sports Utility Vehicle (SUV). SUV's have higher ground clearance and a narrower track to make them capable of performing in a wide variety of off-road applications. The specific design characteristics give them a higher center of gravity than ordinary vehicles making them more likely to roll over if you make abrupt turns. Utility vehicles have a significantly higher rollover rate than other types of vehicles. Due to this risk, driver and passengers are strongly recommended to buckle their seat belts. In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seat belt.

WARNING

Rollover

As with other Sports Utility Vehicle (SUV), failure to operate this vehicle correctly may result in loss of control, an accident or vehicle rollover.

- **Utility vehicles have a significantly higher rollover rate than other types of vehicles.**
- **Specific design characteristics (higher ground clearance, narrower track, etc.) give this vehicle a higher center of gravity than ordinary vehicles.**
- **A SUV is not designed for cornering at the same speeds as conventional vehicles.**
- **Avoid sharp turns or abrupt maneuvers.**
- **In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seat belt. Make sure everyone in the vehicle is properly buckled up.**

WARNING

Your vehicle is equipped with tires designed to provide safe ride and handling capability. Do not use a size and type of tire and wheel that is different from the one that is originally installed on your vehicle. It can affect the safety and performance of your vehicle, which could lead to steering failure or rollover and serious injury. When replacing the tires, be sure to equip all four tires with the tire and wheel of the same size, type, tread, brand and load-carrying capacity. If you nevertheless decide to equip your vehicle with any tire/wheel combination not recommended by HYUNDAI for off road driving, you should not use these tires for highway driving.

WARNING

Jacked vehicle

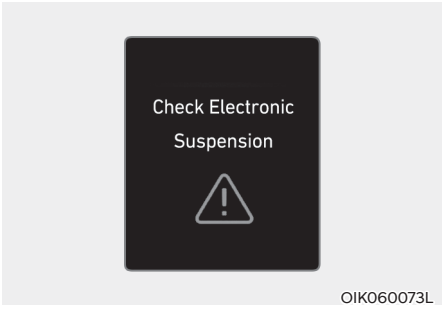
While a full-time AWD vehicle is being raised on a jack, never start the engine or cause the tires to rotate.

There is a danger that rotating tires touching the ground could cause the vehicle to fall off the jack and to jump forward or rearward.

ELECTRONIC CONTROL SUSPENSION (IF EQUIPPED)

Electronic Control Suspension controls the vehicle suspension automatically using vehicle sensors to maximize driving comfort by taking into account the driving conditions such as speed, surface of the road, cornering, stopping requirements and acceleration.

System Malfunction



Check Electronic Suspension

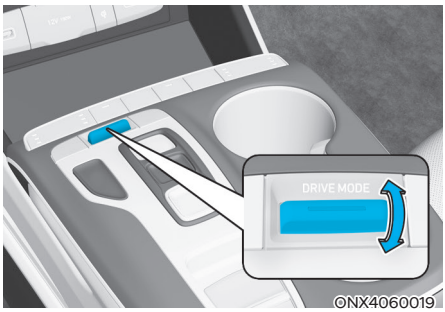
When Electronic Control Suspension is not working properly, this warning message will appear on the cluster LCD display. If this occurs, have the system be inspected by an authorized HYUNDAI dealer.

NOTICE

If the battery level is high or low, Electronically Controlled Suspension may not work temporarily to protect the system. If this occurs, 'Check Eletronic Suspension' warning message will appear.

DRIVE MODE INTEGRATED CONTROL SYSTEM (AWD) (IF EQUIPPED)

Drive Mode



The drive mode may be selected according to the driver's preference or road condition.

The system resets to be in the ECO mode, when the engine is restarted.

Information

If there is a problem with the instrument cluster, the drive mode will be in ECO mode and may not change to SPORT mode.

The mode changes, as below, whenever the DRIVE MODE button is pressed or toggled.

ECO ↔ SPORT ↔ SMART ↔ SNOW

ECO mode

ECO — ECO mode helps improve fuel efficiency for eco-friendly driving.

Fuel efficiency varies according to the driver's driving habit and road condition.

- When ECO mode is selected, the ECO indicator will illuminate on the instrument cluster.
- When ECO mode is activated:
  - The acceleration response may be slightly reduced if the accelerator pedal is depressed moderately.
  - The air conditioner performance may be limited.
  - The shift pattern of the automatic transmission may change.
  - Engine noise may be louder at some automatic transmission shifts as down-shift requires pressing down more on the accelerator.

  The above situations are normal conditions when ECO mode is activated to help improve fuel efficiency.

Limitations of ECO mode

If the following conditions occur while ECO mode is operating, the system operation is limited even though there is no change in the ECO indicator.

- When coolant temperature is low:

  The system will be limited until engine performance becomes normal.
- When driving up a hill:

  The system will be limited to gain power when driving uphill because engine torque is restricted.
- When driving the vehicle in manual shift mode using the paddle shifter.

  The system will be limited according to the shift location.

SPORT mode

SPORT mode provides sporty but firm riding.

In SPORT mode, the fuel efficiency may decrease.

- When SPORT mode is selected, the SPORT indicator will illuminate on the instrument cluster.
- When SPORT mode is activated:
  - The engine RPM will tend to remain raised over a certain length of time even after releasing the accelerator
  - Upshifts are delayed when accelerating

SNOW Mode (if equipped)

SNOW mode offers special traction tuning for snow optimizing available traction in adverse conditions. Snow mode adjusts left and right wheel slip control, engine torque and shift patterns according to available traction levels.

SMART mode

SMART mode selects the proper driving mode between ECO and SPORT by judging the driver's driving habits (for example, mild or dynamic) from the brake pedal depression or the steering wheel operation.

- Press the DRIVE MODE button to activate SMART mode. When SMART mode is activated, the indicator illuminates on the instrument cluster.
- SMART mode automatically controls gear shifting patterns, engine torque, in accordance with the driver's driving habits.

Information

- **When your vehicle drive mode is selected to SMART mode, the driving mode varies according to your acceleration pedal input. When your vehicle is in SMART mode and your driving style is such that your acceleration pedal input is gradual, the drive mode will maximize fuel efficiency. Note, however, the actual fuel efficiency may vary according to certain driving conditions (uphill/downhill grade) and vehicle speed.**
- **When your vehicle is in SMART mode and your driving style is more aggressive such that your acceleration pedal input is more abrupt, the drive mode will change to reflect a more SPORT driving characteristic. Note that while you are driving this way, fuel economy may be adversely affected.**

Various driving situations, which you may encounter in SMART mode

- The driving mode automatically changes to ECO mode after a certain period of time, when you gently depress the accelerator pedal (Your driving is categorized to be mild.).
- The driving mode automatically returns to SMART ECO mode, when the vehicle enters a leveled road.
- The driving mode automatically changes to SMART SPORT, when you abruptly accelerate the vehicle or repetitively operate the steering wheel (Your driving is categorized to be sporty.). In this mode, your vehicle drives in a lower gear for abrupt accelerating/decelerating and increases the engine brake performance.
- You may still sense the engine brake performance, even when you release the accelerator pedal in SMART SPORT mode. It is because your vehicle remains to be in a lower gear over a certain period of time for next acceleration. Thus, it is a normal driving situation, not indicating any malfunction.
- The driving mode automatically changes to SMART SPORT mode only in harsh driving situations. In most of the normal driving situations, the driving mode sets to be either in SMART ECO mode.

Limitation of SMART mode

The SMART mode may be limited in following situations. (The OFF indicator illuminates in those situations.)

- The vehicle is driven using the paddle shifter (manual shift mode) : SMART mode is deactivated determining that the driver wants to drive the vehicle manually.
- Cruise Control and Smart Cruise Control is activated : Cruise Control and Smart Cruise Control may deactivate SMART mode when the vehicle is controlled by the set speed of Cruise Control and Smart Cruise Control. (SMART mode is not deactivated just by turning on Cruise Control and Smart Cruise Control)
- The transmission oil temperature is either extremely low or extremely high : The SMART mode can be active in most of the normal driving situations. However, an extremely high/ low transmission oil temperature may temporarily deactivate the SMART mode, because the transmission condition is out of normal operation condition.

SPECIAL DRIVING CONDITIONS

Hazardous Driving Conditions

When hazardous driving elements are encountered such as water, snow, ice, mud and sand, take the following precautions:

- Drive cautiously and maintain a longer braking distance.
- Avoid abrupt braking or steering.
- When your vehicle is stuck in snow, mud, or sand, use second gear. Accelerate slowly to avoid unnecessary wheel spin.
- Put sand, rock salt, tire chains or other non-slip materials under the wheels to provide additional traction while the vehicle becomes stuck in ice, snow, or mud.

WARNING

Downshifting with an automatic transmission while driving on slippery surfaces can cause an accident. The sudden change in tire speed could cause the tires to skid. Be careful when downshifting on slippery surfaces.

Rocking the Vehicle

If it is necessary to rock the vehicle to free it from snow, sand, or mud, first turn the steering wheel right and left to clear the area around your front wheels. Then, shift back and forth between R (Reverse) and a forward gear.

Try to avoid spinning the wheels, and do not race the engine.

To prevent transmission wear, wait until the wheels stop spinning before shifting gears. Release the accelerator pedal while shifting, and press lightly on the accelerator pedal while the transmission is in gear. Slowly spinning the wheels in forward and reverse directions causes a rocking motion that may free the vehicle.

WARNING

If the vehicle is stuck and excessive wheel spin occurs, the temperature in the tires can increase very quickly. If the tires become damaged, a tire blow out or tire explosion can occur. This condition is dangerous - you and others may be injured. Do not attempt this procedure if people or objects are anywhere near the vehicle.

If you attempt to free the vehicle, the vehicle can overheat quickly, possibly causing an engine compartment fire or other damage. Try to avoid spinning the wheels as much as possible to prevent overheating of either the tires or the engine. DO NOT allow the vehicle to spin the wheels above 35 mph (56 km/h).

Information

The ESC system must be turned OFF before rocking the vehicle.

NOTICE

If you are still stuck after rocking the vehicle a few times, have the vehicle pulled out by a tow vehicle to avoid engine overheating, possible damage to the transmission, and tire damage. See "Towing" section in chapter 8.

Smooth Cornering

Avoid braking or gear changing in corners, especially when roads are wet. Ideally, corners should always be taken under gentle acceleration.

Driving at Night

Night driving presents more hazards than driving in the daylight. Here are some important tips to remember:

- Slow down and keep more distance between you and other vehicles, as it may be more difficult to see at night, especially in areas where there may not be any street lights.
- Adjust your mirrors to reduce the glare from other drivers' headlights.
- Keep your headlights clean and properly aimed. Dirty or improperly aimed headlights will make it much more difficult to see at night.
- Avoid staring directly at the headlights of oncoming vehicles. You could be temporarily blinded, and it will take several seconds for your eyes to readjust to the darkness.

Driving in the Rain

Rain and wet roads can make driving dangerous. Here are a few things to consider when driving in the rain or on slick pavement:

- Slow down and allow extra following distance. A heavy rainfall makes it harder to see and increases the distance needed to stop your vehicle.
- Turn OFF your Cruise Control. (if equipped)
- Replace your windshield wiper blades when they show signs of streaking or missing areas on the windshield.
- Be sure your tires have enough tread. If your tires do not have enough tread, making a quick stop on wet pavement can cause a skid and possibly lead to an accident. **See "Tire Tread" section in chapter 9**.
- Turn on your headlights to make it easier for others to see you.
- Driving too fast through large puddles can affect your brakes. If you must go through puddles, try to drive through them slowly.
- If you believe your brakes may be wet, apply them lightly while driving until normal braking operation returns.

Hydroplaning

If the road is wet enough and you are going fast enough, your vehicle may have little or no contact with the road surface and actually ride on the water. The best advice is SLOW DOWN when the road is wet.

The risk of hydroplaning increases as the depth of tire tread decreases, refer to "Tire Tread" section in chapter 9.

Driving in Flooded Areas

Avoid driving through flooded areas unless you are sure the water is no higher than the bottom of the wheel hub. Drive through any water slowly. Allow adequate stopping distance because brake performance may be reduced.

After driving through water, dry the brakes by gently applying them several times while the vehicle is moving slowly.

Highway Driving

Tires

Adjust the tire inflation, as specified. Under-inflation may overheat or damage the tires.

Do not install worn-out or damaged tires, which may reduce traction or fail the braking operation.

Information

Never over-inflate your tires above the maximum inflation pressure, as specified on your tires.

Fuel, engine coolant and engine oil

Driving at higher speeds on the highway consumes more fuel and is less efficient than driving at a slower, more moderate speed. Maintain a moderate speed in order to conserve fuel when driving on the highway.

Be sure to check both the engine coolant level and the engine oil before driving.

Drive belt

A loose or damaged drive belt may overheat the engine.

Reducing the Risk of a Rollover

Your multi-purpose passenger vehicle is defined as a Sports Utility Vehicle (SUV). SUV's have higher ground clearance and a narrower track to make them capable of performing in a wide variety of off-road applications. The specific design characteristics give them a higher center of gravity than ordinary vehicles making them more likely to roll over if you make abrupt turns. Utility vehicles have a significantly higher rollover rate than other types of vehicles. Due to this risk, driver and passengers are strongly recommended to buckle their seat belts. In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seat belt.

There are steps that a driver can make to reduce the risk of a rollover. If at all possible, avoid sharp turns or abrupt maneuvers, do not load your vehicle with heavy cargo on the roof, and never modify your vehicle in any way.

WARNING

Utility vehicles have a significantly higher rollover rate than other types of vehicles. To prevent rollovers or loss of control:

- **Take corners at slower speeds than you would with a passenger vehicle.**
- **Avoid sharp turns and abrupt maneuvers.**
- **Do not modify your vehicle in any way that you would raise the center of gravity.**
- **Keep tires properly inflated.**
- **Do not carry heavy cargo on the roof.**

WARNING

In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seat belt. Make sure all passengers are wearing their seat belts.

WINTER DRIVING

The severe weather conditions of winter quickly wear out tires and cause other problems. To minimize winter driving problems, you should take the following suggestions:

Snow or Icy Conditions

You need to keep sufficient distance between your vehicle and the vehicle in front of you.

Apply the brakes gently. Speeding, rapid acceleration, sudden brake applications, and sharp turns are potentially very hazardous practices. During deceleration, use engine braking to the fullest extent. Sudden brake applications on snowy or icy roads may cause the vehicle to skid.

To drive your vehicle in deep snow, it may be necessary to use snow tires or to install tire chains on your tires.

Always carry emergency equipment. Some of the items you may want to carry include tire chains, tow straps or chains, a flashlight, emergency flares, sand, a shovel, jumper cables, a window scraper, gloves, ground cloth, coveralls, a blanket, etc.

Snow tires

WARNING

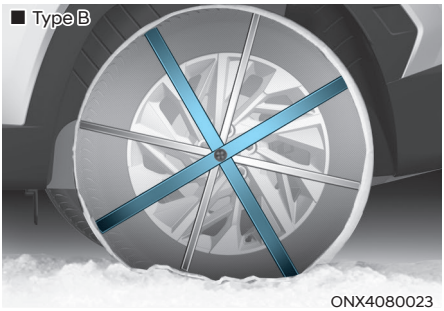
Snow tires should be equivalent in size and type to the vehicle's standard tires. Otherwise, the safety and handling of your vehicle may be adversely affected.

Use snow tires when road temperature is below 45°F (7°C).

If you mount snow tires on your vehicle, make sure to use the same Inflation pressure as the original tires. Mount snow tires on all four wheels to balance your vehicle's handling in all weather conditions. The traction provided by snow tires on dry roads may not be as high as your vehicle's original equipment tires. Check with the tire dealer for maximum speed recommendations.

Tire chains





Since the sidewalls of radial tires are thinner than other types of tires, they may be damaged by mounting some types of tire chains on them. Therefore, the use of snow tires is recommended instead of tire chains. If tire chains must be used, use genuine HYUNDAI parts if available and install the tire chain after reviewing the instructions provided with the tire chains. Damage to your vehicle caused by improper tire chain use is not covered by your vehicle manufacturer's warranty.

When using tire chains, attach them to the drive wheels as follows.

AWD : All four wheels

If a full set of chains is not available for an AWD vehicle, chains may be installed on the front wheels only.

WARNING

The use of tire chains may adversely affect vehicle handling:

- **Drive less than 20 mph (30 km/h) or the chain manufacturer's recommended speed limit, whichever is lower.**
- **Drive carefully and avoid bumps, holes, sharp turns, and other road hazards, which may cause the vehicle to bounce.**
- **Avoid sharp turns or locked wheel braking.**

Information

- **Install tire chains only in pairs and on the front tires. It should be noted that installing tire chains on the tires will provide a greater driving force, but will not prevent side skids.**
- **Do not install studded tires without first checking local and municipal regulations for possible restrictions against their use.**

Chain Installation

When installing tire chains, follow the manufacturer's instructions and mount them as tightly possible. Drive slowly (less than 20 mph (30 km/h)) with chains installed. If you hear the chains contacting the body or chassis, stop and tighten them. If they still make contact, slow down until the noise stops. Remove the tire chains as soon as you begin driving on cleared roads.

When mounting snow chains, park the vehicle on level ground away from traffic. Turn on the vehicle Hazard Warning Flasher and place a triangular emergency warning device behind the vehicle (if available). Always place the vehicle in P (Park), apply the parking brake and turn off the engine before installing snow chains.

NOTICE

When using tire chains:

If snow chains must be used, see the below table.

235/65 R17	Wire-type chains with a thickness of less than 0.47 in. (12mm)
235/55 R19	Fabric-type chains

- **Wrong size chains or improperly installed chains can damage your vehicle's brake lines, suspension, body and wheels.**
- **Use SAE "S" class or wire chains.**
- **If you hear noise caused by chains contacting the body, retighten the chain to prevent contact with the vehicle body.**
- **To prevent body damage, retighten the chains after driving 0.3~0.6 miles (0.5~1.0 km).**
- **Do not use tire chains on vehicles equipped with aluminum wheels. If unavoidable, use a wire type chain.**
- **Use wire chains less than 0.47 in. (12 mm) thick or fabric-type chain to prevent damage to the chain's connection.**
- **Fabric-type chains must be used on vehicles equipped with 19/20" tires.**

Winter Precautions

Use high quality ethylene glycol coolant

Your vehicle is delivered with high quality ethylene glycol coolant in the cooling system. It is the only type of coolant that should be used because it helps prevent corrosion in the cooling system, lubricates the water pump and prevents freezing. Be sure to replace or replenish your coolant in accordance with the maintenance schedule in chapter 9. Before winter, have your coolant tested to assure that its freezing point is sufficient for the temperatures anticipated during the winter.

Check battery and cables

Winter temperatures affect battery performance. **Inspect the battery and cables, as specified in chapter 9.** The battery charging level can be checked by an authorized HYUNDAI dealer or in a service station.

If the vehicle is not used for a long time, park the vehicle indoors if possible.

Change to “winter weight” oil if necessary

In some regions during winter, it is recommended to use the “winter weight” oil with lower viscosity In addition, replace the engine oil and filter if it is close to the next maintenance interval. Fresh engine oil ensures optimum engine operation during the winter months. For further information, refer to chapter 2. When you are not sure about a type of winter weight oil, consult an authorized HYUNDAI dealer.

Check spark plugs and ignition system

Inspect the spark plugs, as specified in chapter 9. If necessary, replace them. Also check all ignition wirings and components for any cracks, wear-out, and damage.

To prevent locks from freezing

To prevent the locks from being frozen, spray approved de-icing fluid or glycerin into key holes. When a lock opening is already covered with ice, spray approved de-icing fluid over the ice to remove it. When an internal part of a lock freezes, try to thaw it with a heated key. Carefully use the heated key to avoid an injury.

Use approved window washer anti-freeze solution in system

To prevent the window washer from being frozen, add authorized window washer anti-freeze solution, as specified on the window washer container. Window washer anti-freeze solution is available from an authorized HYUNDAI dealer, and most vehicle accessory outlets. Do not use engine coolant or other types of anti-freeze solution, to prevent any damage to the vehicle paint.

Do not let your parking brake freeze

Under some conditions your parking brake can freeze in the engaged position. This is most likely to happen when there is an accumulation of snow or ice around or near the rear brakes or if the brakes are wet. When there is the risk that your parking brake may freeze, temporarily apply it with the gear in P (Park). Also, block the rear wheels in advance, so the vehicle may not roll. Then, release the parking brake.

Do not let ice and snow accumulate underneath

Under some conditions, snow and ice can build up under the fenders and interfere with the steering. When driving in such conditions during the severe winter, you should check underneath the vehicle on a regular basis, to ensure that the front wheels and the steering components is unblocked.

Carry emergency equipment

In accordance with weather conditions, you should carry appropriate emergency equipment, while driving. Some of the items you may want to carry include tire chains, tow straps or chains, flashlight, emergency flares, sand, shovel, jumper cables, window scraper, gloves, ground cloth, coveralls, blanket, etc.

Do not place objects or materials in the engine compartment

Putting objects or materials in the engine compartment may cause an engine failure or combustion, because they may block the engine cooling. Such damage will not be covered by the manufacturer's warranty.

Drive your vehicle when water vapor condenses and accumulates inside the exhaust pipes

When the vehicle is stopped for a long time in winter while the engine is running, water vapor may condense and accumulate inside the exhaust pipes. Water in the exhaust pipes may cause noise, etc., but it is drained driving at medium to high speed.

TRAILER TOWING

If you are considering towing with your vehicle, be sure to take extra precautions while driving. Only experienced drivers should consider towing. Plan your trip accordingly as vehicle speed limits for vehicles towing trailers may be different. Always follow posted speed limits for vehicles towing with trailers.

Remember that trailering is different than just driving your vehicle by itself. Trailering means changes in handling, durability, and fuel economy. Successful, safe trailering requires correct equipment, and it has to be used properly. Damage to your vehicle caused by improper trailer towing is not covered by your vehicle manufacturer's warranty.

This section contains many time-tested, important trailering tips and safety rules. Many of these are important for your safety and that of your passengers. Please read this section carefully before you pull a trailer.

WARNING

Take the following precautions:

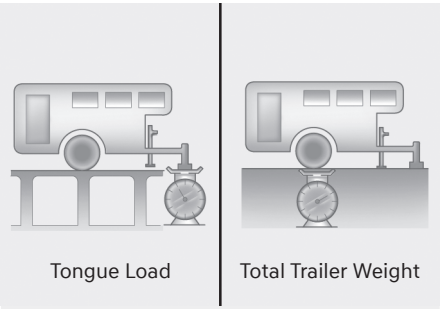
- **If you don't use the correct equipment and/or drive improperly, you can lose control of the vehicle when you are pulling a trailer. For example, if the trailer is too heavy, the braking performance may be reduced. You and your passengers could be seriously or fatally injured. Pull a trailer only if you have followed all the steps in this section.**
- **Before towing, make sure the total trailer weight, GCW (Gross Combination Weight), GVW (Gross Vehicle Weight), GAW (Gross Axle Weight) and trailer tongue load are all within the limits.**

If you Decide to Pull a Trailer

Here are some important points if you decide to pull a trailer:

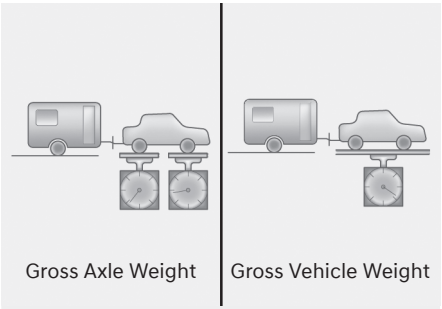
- Consider using a sway control. You can ask a trailer hitch dealer about sway control.
- Do not do any towing with your vehicle during its first 1,200 miles (2,000 km) in order to allow the engine to properly break in. Failure to heed this caution may result in serious engine or transmission damage.
- When towing a trailer, consult an authorized HYUNDAI dealer for further information on additional requirements such as a towing kit, etc.
- Always drive your vehicle at a moderate speed (less than 60 mph (100 km/h)) or posted towing speed limit.
- On a long uphill grade, do not exceed 45 mph (70 km/h) or the posted towing speed limit, whichever is lower.
- Carefully observe the weight and load limits provided in the following pages.

Trailer weight



What is the maximum safe weight of a trailer? It should never weigh more than the maximum trailer weight with trailer brakes. But even that can be too heavy. It depends on how you plan to use your trailer. For example, speed, altitude, road grades, outside temperature and how often your vehicle is used to pull a trailer are all important. The ideal trailer weight can also depend on any special equipment that you have on your vehicle.

Tongue load



The tongue load is an important weight to measure because it affects the total Gross Vehicle Weight (GVW) of your vehicle. The trailer tongue should weigh a maximum of 10% of the total loaded trailer weight, within the limits of the maximum trailer tongue load permissible.

After you've loaded your trailer, weigh the trailer and then the tongue, separately, to see if the weights are proper. If they aren't, you may be able to correct them simply by moving some items around in the trailer.

WARNING

Take the following precautions:

- **Never load a trailer with more weight in the rear than in the front. The front should be loaded with approximately 60% of the total trailer load; the rear should be loaded with approximately 40% of the total trailer load.**
- **Never exceed the maximum weight limits of the trailer or trailer towing equipment. Improper loading can result in damage to your vehicle and/or personal injury. Check weights and loading at a commercial scale or highway patrol office equipped with scales.**

Information

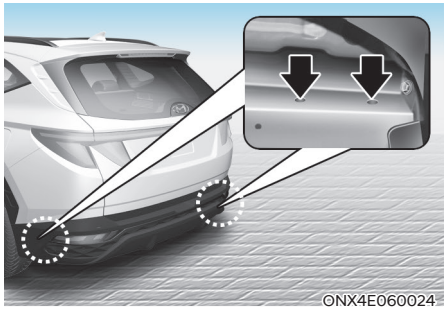
With increasing altitude the engine performance decreases. From 3,280 feet above sea level and for every 3,280 feet thereafter 10% of vehicle/trailer weight (trailer weighter + gross vehicle weight) must be deducted.

Reference weight and distance when towing a trailer

Item		
Maximum trailer weight lbs. (kg)	With brake system	2,000 (907)
	Without brake system	1,653 (750)
Maximum tongue weight lbs. (kg)		220 (100)

Trailer Towing Equipment

Hitches



Information

The mounting hole for hitches are located on both sides of the underbody behind the rear tires.

It's important to have the correct hitch equipment. Crosswinds, large trucks going by, and rough roads are a few reasons why you'll need the right hitch. Here are some rules to follow:

- Do you have to make any holes in the body of your vehicle when you install a trailer hitch? If you do, then be sure to seal the holes later when you remove the hitch. If you don't seal them, carbon monoxide (CO) from your exhaust can get into your vehicle, as well as dirt and water.
- The bumpers on your vehicle are not intended for hitches. Do not attach rental hitches or other bumper-type hitches to them. Use only a frame-mounted hitch that does not attach to the bumper.
- Any part of the rear number plate or lighting devices of the vehicle must not be obscured by the mechanical coupling device.

  If the rear number plate and/or lighting devices can be obscured partially by any part of the mechanical coupling device, mechanical coupling devices that can not be easily removed or repositioned without use of any tools, except an easily operated (for example, an effort not exceeding 20Nm) release key which is supplied by the manufacturer of the coupling device, are not permitted for use.

  Please note that the mechanical coupling device that is fitted and not in use must always be removed or repositioned if the rear number plate and/or rear lighting devices are obscured by any part of the mechanical coupling device.
- A HYUNDAI trailer hitch accessory is available at an authorized HYUNDAI dealer.

Safety chains

You should always attach chains between your vehicle and your trailer.

Instructions about safety chains may be provided by the hitch manufacturer or trailer manufacturer. Follow the manufacturer's recommendation for attaching safety chains. Always leave just enough slack so you can turn with your trailer. And, never allow safety chains to drag on the ground.

Trailer brakes

If your trailer is equipped with a braking system, make sure it conforms to your country's regulations and that it is properly installed and operating correctly.

If your trailer weighs more than the maximum trailer weight without trailer brakes loaded, then it needs its own brakes and they must be adequate. Be sure to read and follow the instructions for the trailer brakes so you'll be able to install, adjust and maintain them properly. Be sure not to modify your vehicle's brake system.

WARNING

Do not use a trailer with its own brakes unless you are absolutely certain that you have properly set up the brake system. This is not a task for amateurs. Use an experienced, competent trailer shop for this work.

Driving with a Trailer

Towing a trailer requires a certain amount of experience. Before setting out for the open road, you must get to know your trailer. Acquaint yourself with the feel of handling and braking with the added weight of the trailer. And always keep in mind that the vehicle you are driving is now longer and not nearly as responsive as your vehicle is by itself.

Before you start, check the trailer hitch and platform, safety chains, electrical connector(s), lights, tires and brakes.

During your trip, occasionally check to be sure that the load is secure, and that the lights and trailer brakes are still working.

Distance

Stay at least twice as far behind the vehicle ahead as you would when driving your vehicle without a trailer. This can help you avoid situations that require heavy braking and sudden turns.

Passing

You will need more passing distance up ahead when you're towing a trailer. And, because of the increased vehicle length, you'll need to go much farther beyond the passed vehicle before you can return to your lane.

Backing up

Hold the bottom of the steering wheel with one hand. Then, to move the trailer to the left, move your hand to the left. To move the trailer to the right, move your hand to the right. Always back up slowly and, if possible, have someone guide you.

Making turns

When you're turning with a trailer, make wider turns than normal. Do this so your trailer won't strike soft shoulders, curbs, road signs, trees, or other objects. Avoid jerky or sudden maneuvers. Signal well in advance.

Turn signals

When you tow a trailer, your vehicle has to have a different turn signal flasher and extra wiring. The green arrows on your instrument panel will flash whenever you signal a turn or lane change. Properly connected, the trailer lights will also flash to alert other drivers you're about to turn, change lanes, or stop.

When towing a trailer, the green arrows on your instrument panel will flash for turns even if the bulbs on the trailer are burned out. Thus, you may think drivers behind you are seeing your signals when, in fact, they are not. It's important to check occasionally to be sure the trailer bulbs are still working. You must also check the lights every time you disconnect and then reconnect the wires.

WARNING

Do not connect a trailer lighting system directly to your vehicle's lighting system. Use an approved trailer wiring harness. Failure to do so could result in damage to the vehicle electrical system and/or personal injury. Consult an authorized HYUNDAI dealer for assistance.

Driving on hills

Reduce speed and shift to a lower gear before you start down a long or steep downgrade. If you don't shift down, you might have to use your brakes so much that they would get overheated and may not operate efficiently.

On a long uphill grade, shift down and reduce your speed to around 45 mph (70 km/h) to reduce the possibility of engine and transmission overheating.

If your trailer weighs more than the maximum trailer weight without trailer brakes and you have a automatic transmission, you should drive in D (Drive) when towing a trailer.

Operating your vehicle in D (Drive) when towing a trailer will minimize heat build-up and extend the life of your transmission.

NOTICE

To prevent engine and/or transmission overheating:

- **When towing a trailer on steep grades (in excess of 6%) pay close attention to the engine coolant temperature gauge to ensure the engine does not overheat. If the needle of the coolant temperature gauge moves towards "H" (HOT), pull over and stop as soon as it is safe to do so, and allow the engine to idle until it cools down. You may proceed once the engine has cooled sufficiently.**
- **If you tow a trailer with the maximum gross vehicle weight and maximum trailer weight, it can cause the engine or transmission to overheat. When driving in such conditions, allow the engine to idle until it cools down. You may proceed once the engine or transmission has cooled sufficiently.**
- **When towing a trailer, your vehicle speed may be much slower than the general flow of traffic, especially when climbing an uphill grade. Use the right hand lane when towing a trailer on an uphill grade. Choose your vehicle speed according to the maximum posted speed limit for vehicles with trailers, the steepness of the grade, and your trailer weight.**

Parking on hills

Generally, if you have a trailer attached to your vehicle, you should not park your vehicle on a hill.

However, if you ever have to park your trailer on a hill, here's how to do it:

1. Pull the vehicle into the parking space.
   Turn the steering wheel in the direction of the curb (right if headed down hill, left if headed up hill).
2. Shift the gear to P (Park).
3. Set the parking brake and shut off the vehicle.
4. Place wheel chocks under the trailer wheels on the down hill side of the wheels.
5. Start the vehicle, hold the brakes, shift to neutral, release the parking brake and slowly release the brakes until the trailer chocks absorb the load.
6. Reapply the brakes and parking brakes.
7. Shift the gear to P (Park) when the vehicle is parked on a uphill grade and in R (Reverse) on a downhill.
8. Shut off the vehicle and release the vehicle brakes but leave the parking brake set.

WARNING

To prevent serious or fatal injury:

- **Do not get out of the vehicle without the parking brake firmly set. If you have left the engine running, the vehicle can move suddenly. You and others could be seriously or fatally injured.**
- **Do not apply the accelerator pedal to hold the vehicle on an uphill.**

Driving the vehicle after it has been parked on a hill

1. With the gear in P (Park), apply your brakes and hold the brake pedal down while you:
   - Start your engine;
   - Shift into gear; and
   - Release the parking brake.
2. Slowly remove your foot from the brake pedal.
3. Drive slowly until the trailer is clear of the chocks.
4. Stop and have someone pick up and store the chocks.

Maintenance when Towing a Trailer

Your vehicle will need service more often when you regularly pull a trailer. Important items to pay particular attention to include engine oil, transmission fluid, axle lubricant and cooling system fluid. Brake condition is another important item to frequently check. If you're trailering, it's a good idea to review these items before you start your trip. Don't forget to also maintain your trailer and hitch. Follow the maintenance schedule that accompanied your trailer and check it periodically. Preferably, conduct the check at the start of each day's driving. Most importantly, all hitch nuts and bolts should be tight.

NOTICE

To prevent vehicle damage:

- **Due to higher load during trailer usage, overheating might occur on hot days or during uphill driving. If the coolant gauge indicates over-heating, switch off the air conditioner and stop the vehicle in a safe area to cool down the engine.**
- **Do not switch off the engine while the coolant gauge indicates over-heating.**

  (Keep the engine idle to cool down the engine)
- **When towing check transmission fluid more frequently.**
- **If your vehicle is not equipped with an air conditioner, you should install a condenser fan to improve engine performance when towing a trailer.**

VEHICLE WEIGHT

Two labels on your driver's door sill show how much weight your vehicle was designed to carry: the Tire and Loading Information Label and the Certification Label.

Before loading your vehicle, familiarize yourself with the following terms for determining your vehicle's weight ratings, from the vehicle's specifications and the Certification Label:

Base Curb Weight

This is the weight of the vehicle including a full tank of fuel and all standard equipment. It does not include passengers, cargo, or optional equipment.

Vehicle Curb Weight

This is the weight of your new vehicle when you picked it up from your dealer plus any aftermarket equipment.

Cargo Weight

This figure includes all weight added to the Base Curb Weight, including cargo and optional equipment.

GAW (Gross Axle Weight)

This is the total weight placed on each axle (front and rear) - including vehicle curb weight and all payload.

GAWR (Gross Axle Weight Rating)

This is the maximum allowable weight that can be carried by a single axle (front or rear). These numbers are shown on the Certification Label. The total load on each axle must never exceed its GAWR.

GVW (Gross Vehicle Weight)

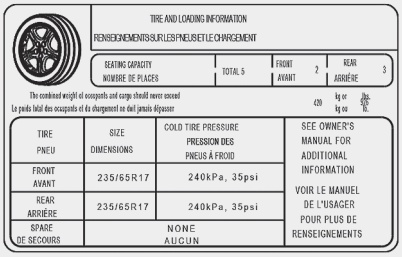
This is the Base Curb Weight plus actual Cargo Weight plus passengers.

GVWR (Gross Vehicle Weight Rating)

This is the maximum allowable weight of the fully loaded vehicle (including all options, equipment, passengers and cargo). The GVWR is shown on the Certification Label located on the driver's door sill.

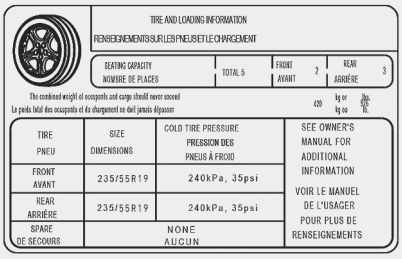
The Loading Information Label

■ 17 inch



ONX4PH062001N

■ 19 inch



ONX4PH062002N

The label located on the driver's door sill gives the original tire size, cold tire pressures recommended for your vehicle, the number of people that can be in your vehicle and vehicle capacity weight.

Vehicle capacity weight

5 persons : 926 lbs. (420 kg)

Vehicle capacity weight is the maximum combined weight of occupants and cargo. If your vehicle is equipped with a trailer, the combined weight includes the tongue load.

Seating capacity

Total : 5 persons (Front seat : 2 persons, Rear seat : 3 persons)

Seating capacity is the maximum number of occupants including a driver, your vehicle may carry. However, the seating capacity may be reduced based upon the weight of all of the occupants, and the weight of the cargo being carried or towed. Do not overload the vehicle as there is a limit to the total weight, or load limit including occupants and cargo, the vehicle can carry.

Towing capacity

With brake system: 2,000 lbs. (907 kg)

Without brake system: 1,653 lbs. (750 kg)

Towing capacity is the maximum trailer weight including its cargo weight, your vehicle can tow.

Cargo capacity

The cargo capacity of your vehicle will increase or decrease depending on the weight and the number of occupants and the tongue load, if your vehicle is equipped with a trailer.

Steps for determining correct load limit

1. Locate the statement "The combined weight of occupants and cargo should never exceed XXX kg or XXX lbs." on your vehicle's placard.
2. Determine the combined weight of the driver and passengers that will be riding in your vehicle.
3. Subtract the combined weight of the driver and passengers from XXX kg or XXX lbs.
4. The resulting figure equals the available amount of cargo and luggage load capacity. For example, if the "XXX" amount equals 1400 lbs. and there will be five 150 lb passengers in your vehicle, the amount of available cargo and luggage load capacity is 650 lbs. (1400 - 750 (5 x 150) = 650 lbs.)
5. Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity calculated in Step 4.
6. If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult this manual to determine how this reduces the available cargo and luggage load capacity of your vehicle.

WARNING

Do not overload the vehicle as there is a limit to the total weight, or load limit, including occupants and cargo, the vehicle can carry. Overloading can shorten the life of the vehicle. If the GVWR or the GAWR is exceeded, parts on the vehicle can be break, and it can change the handling of your vehicle. These could cause you to lose control and result in an accident.

Example 1	Vehicle Capacity Maximum Load (1400 lbs.) (635 kg)	≥	 Passenger Weight (150 lbs. × 2 = 300 lbs.) (68 kg × 2 = 136 kg)	+	 Cargo Weight (1100 lbs.) (499 kg)
Example 2	Vehicle Capacity Maximum Load (1400 lbs.) (635 kg)	≥	 Passenger Weight (150 lbs. × 5 = 750 lbs.) (68 kg × 5 = 340 kg)	+	 Cargo Weight (650 lbs.) (295 kg)
Example 3	Vehicle Capacity Maximum Load (1400 lbs.) (635 kg)	≥	 Passenger Weight (172 lbs. × 5 = 860 lbs.) (78 kg × 5 = 390 kg)	+	 Cargo Weight (540 lbs.) (245 kg)

Certification label



OBH059070

The certification label is located on the driver's door sill at the center pillar and shows the maximum allowable weight of the fully loaded vehicle. This is called the GVWR (Gross Vehicle Weight Rating). The GVWR includes the weight of the vehicle, all occupants, fuel and cargo.

This label also tells you the maximum weight that can be supported by the front and rear axles, called Gross Axle Weight Rating (GAWR).

The total weight of the vehicle, including all occupants, accessories, cargo, and trailer tongue load must not exceed the Gross Vehicle Weight Rating (GVWR) or the Gross Axle Weight Rating (GAWR). To find out the actual loads on your front and rear axles, you need to go to a weigh station and weigh your vehicle. Be sure to spread out your load equally on both sides of the centerline.

WARNING

Overloading

- **Never exceed the GVWR for your vehicle, the GAWR for either the front or rear axle and vehicle capacity weight. Exceeding these ratings can affect your vehicle's handling and braking ability, and cause an accident.**
- **Do not overload your vehicle. Overloading your vehicle can cause heat buildup in your vehicle's tires and possible tire failure, increased stopping distances and poor vehicle handling-all of which may result in a crash.**

NOTICE

Overloading your vehicle may cause damage. Repairs would not be covered by your warranty. Do not overload your vehicle.

WARNING

If you carry items inside your vehicle (for example, suitcases, tools, packages, or anything else), they are moving as fast as the vehicle. If you have to stop or turn quickly, or if there is a crash, the items will keep going and can cause an injury if they strike the driver or a passenger.

- **Put items in the cargo area of your vehicle. Try to spread the weight evenly.**
- **Do not stack items like suitcases inside the vehicle above the tops of the seats.**
- **Do not leave an unsecured child restraint in your vehicle.**
- **When you carry something inside the vehicle, secure it.**

7. Driver Assistance System

Due to the infotainment software version, the description of each function of the driver assistance system may differ from the owner's manual. In this case, for detailed information on updates, scan the QR code in the separately supplied simple manual.

Driving Safety

- Forward Collision–Avoidance Assist (FCA) (Front view camera only) 7-2
- Forward Collision–Avoidance Assist (FCA) (Sensor fusion) 7-15
- Lane Keeping Assist (LKA) 7-32
- Blind-Spot Collision-Avoidance Assist (BCA) 7-38
- Safe Exit Warning (SEW) 7-52
- Manual Speed Limit Assist (MSLA) 7-58
- Intelligent Speed Limit Assist (ISLA) 7-61
- Driver Attention Warning (DAW) 7-66
- Blind-Spot View Monitor (BVM) 7-72

Driving Convenience

- Cruise Control (CC) 7-74
- Smart Cruise Control (SCC) 7-78
- Navigation-based Smart Cruise Control (NSCC) 7-95
- Lane Following Assist (LFA) 7-102
- Highway Driving Assist (HDA) 7-106

Parking Safety

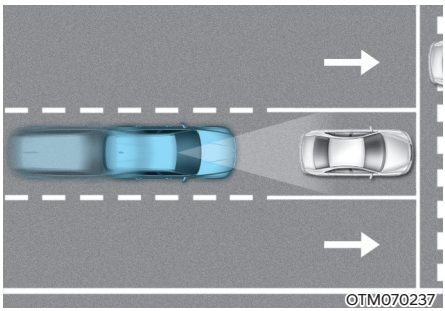
- Rear View Monitor (RVM) 7-113
- Surround View Monitor (SVM) 7-116
- Rear Cross-Traffic Collision-Avoidance Assist (RCCA) 7-122
- Reverse Parking Distance Warning (PDW) 7-134
- Forward/Reverse Parking Distance Warning (PDW) 7-138
- Reverse Parking Collision-Avoidance Assist (PCA) 7-143

Parking Convenience

- Remote Smart Parking Assist (RSPA) 7-151

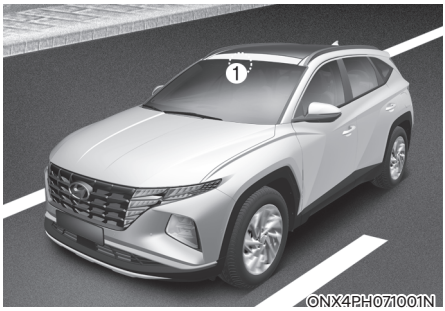
Declaration of Conformity 7-164

FORWARD COLLISION–AVOIDANCE ASSIST (FCA) (FRONT VIEW CAMERA ONLY) (IF EQUIPPED)



Forward Collision-Avoidance Assist detects a vehicle, a pedestrian, or a cyclist ahead on the road and may warn you of a possible collision with a warning message on the instrument cluster and a warning sound. Also, Forward Collision-Avoidance Assist may assist with braking your vehicle to help reduce collision speed or avoid a collision.

Detecting sensor



[1] : Front view camera

Refer to the picture above for the detailed location of the detecting sensor.

CAUTION

Take the following precautions to maintain optimal performance of the detecting sensor:

- **Never disassemble the detecting sensor or sensor assembly, or apply any impact on it.**
- **If the detecting sensor have been replaced or repaired, have your vehicle inspected by an authorized HYUNDAI dealer.**
- **Never install any accessories or stickers on the front windshield, or tint the front windshield.**
- **Exercise extreme caution to keep the front view camera dry.**
- **Never place any reflective objects (for example, white paper, mirror) over the dashboard.**
- **Do not place any objects near the front windshield or install any accessories on the front windshield as it can affect the performance of the defogging and defrosting function of the climate control system, which may prevent the Driver assistance systems from operating.**

Forward Collision-Avoidance Assist Settings

Setting features



OTM070090N

Forward Safety

With the engine on, select or deselect 'Driver Assistance → Forward Safety' from the Settings menu to set whether or not to use each function.

- If 'Active Assist' is selected, Forward Collision-Avoidance Assist will warn the driver with a warning message and an audible warning depending on the collision risk levels. Braking assist will be applied depending on the collision risk.
- If 'Warning Only' is selected, Forward Collision-Avoidance Assist will warn the driver with a warning message and an audible warning depending on the collision risk levels. Braking will not be assisted. The driver must apply the brake pedal if necessary.
- If 'Off' is selected, Forward Collision-Avoidance Assist will turn off. The warning light will illuminate on the cluster.

The driver can monitor Forward Collision-Avoidance Assist ON/OFF status from the Settings menu. If the warning light remains ON when Forward Collision-Avoidance Assist is ON, have the vehicle inspected by an HYUNDAI dealer.

WARNING

When the engine is restarted, Forward Collision-Avoidance Assist will always turn on. However, if 'Off' is selected, the driver should always be aware of the surroundings and drive safely.

CAUTION

If 'Warning Only' is selected, braking is not assisted.

Information

Forward Collision-Avoidance Assist will turn off when ESC is turned off by pressing and holding the ESC OFF button. The warning light will illuminate on the cluster.



OTM070140N

Warning Timing

With the ignition switch ON, go to 'User Settings → Driver Assistance → Warning Timing (for cluster type)' or 'Setup → Vehicle → Driver Assistance → Warning Timing (for infotainment system type)' from the Settings menu to change the initial warning activation time. Warning Timing is set to Normal at the factory.

WARNING

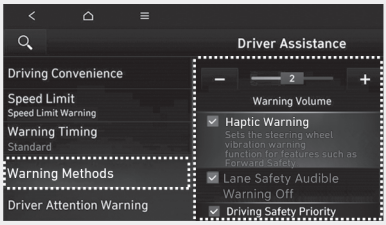
- **Even though 'Normal' is selected for Warning Timing if the vehicle ahead of you suddenly stops, the initial warning activation time may seem late.**
- **Select 'Late' for Warning Timing when traffic is light and your vehicle speed is slow.**

Information

When the engine is restarted, the Warning Timing maintains its last setting.



ONX4OB073097N



ONX4OB073141N

Warning Methods

The Warning Methods can be set with the vehicle on. Select 'User Settings → Driver Assistance → Warning Methods' from the settings menu in the instrument cluster or 'Setup → Vehicle → Driver Assistance → Warning Methods' from the settings menu in the infotainment system to change the following settings.

- **Warning Volume**: Adjusts the volume of the warning sound.

  Even if you set the warning volume to 'Off' or '0', the warning sound will sound at the volume set to 'Low' or '1'. (if equipped)
- **Haptic Warning**: Activate the steering wheel vibration warning. (if equipped)
- **Driving Safety Priority**: Lowers all other audio volumes when the Driving Safety system sounds a warning. (for infotainment system type)

Information

- **If you change the Warning Methods, it can be applied to each function of the driver assistance system. Please check and change it in each function.**
- **If the vehicle is restarted, Warning Methods will maintain the last setting.**
- **The setting menu may not exist based on vehicle specification.**
- **If you turn off the haptic warning when the warning volume is 'Off' or '0', the warning volume will turn on and will be set to 'Medium' or '2'.**
- **If you set the warning volume to 'Off' or '0' when the haptic warning is off, the haptic warning will turn on.**

Forward Collision-Avoidance Assist Operation

Warning and control

Forward Collision-Avoidance Assist is to help warn and control the vehicle depending on collision risk level: 'Collision Warning', 'Emergency Braking' and 'Stopping vehicle and ending brake control'.



ONX4072103N

Collision Warning

- To warn the driver of a collision, the 'Collision Warning' warning message will appear on the cluster and an audible warning sound and haptic feedback of the steering wheel (if equipped).
- If a vehicle is detected in front, the function will operate when your vehicle speed is between approximately 6~112 mph (10~180 km/h).
- If a pedestrian or cyclist is detected in front, the function will operate when your vehicle speed is between approximately 6~49 mph (10~80 km/h).
- If 'Active Assist' is selected, braking may be assisted.



ONX4E070002

Emergency Braking

- To warn the driver that emergency braking will occur, the 'Emergency Braking' warning message will appear on the cluster and an audible warning sound and haptic feedback of the steering wheel (if equipped).
- If a vehicle is detected in front, the function will operate when your vehicle speed is between approximately 6~37 mph (10~60 km/h).
- If a pedestrian or cyclist is detected in front, the function will operate when your vehicle speed is between approximately 6~37 mph (10~60 km/h).
- In an emergency braking situation, braking is assisted with strong braking power by the function to help prevent a collision with the vehicle, pedestrian or cyclist ahead.



ONX4E070003

Stopping vehicle and ending brake control

- When the vehicle is stopped due to emergency braking, the 'Drive carefully' warning message will appear on the cluster.

  For your safety, the driver should depress the brake pedal immediately and check the surroundings.
- Brake control will end after the vehicle is stopped by emergency braking for approximately 2 seconds.

WARNING

Take the following precautions when using Forward Collision-Avoidance Assist:

- **For your safety, only change the Settings after parking the vehicle at a safe location.**
- **With 'Active Assist' or 'Warning Only' selected, when ESC is turned off by pressing and holding the ESC OFF button, Forward Collision-Avoidance Assist will turn off automatically. In this case, Forward Collision-Avoidance Assist cannot be set from the Settings menu and the warning light will illuminate on the cluster which is normal. If ESC is turned on by pressing the ESC OFF button, Forward Collision-Avoidance Assist will maintain the last setting. Forward Collision-Avoidance Assist does not operate in all situations and cannot avoid all collisions.**

- The driver has the responsibility to control the vehicle. Do not solely depend on Forward Collision-Avoidance Assist. Rather, maintain a safe braking distance, and, if necessary, depress the brake pedal to reduce driving speed or to stop the vehicle.
- Never deliberately operate Forward Collision-Avoidance Assist on people, objects, etc. It may cause serious injury or death.
- Forward Collision-Avoidance Assist may not operate if the driver depresses the brake pedal to avoid collision.
- Depending on the road and driving conditions, Forward Collision-Avoidance Assist may warn the driver late or may not warn the driver.
- During Forward Collision-Avoidance Assist operation, the vehicle may stop suddenly injuring passengers and shifting loose objects. Always have the seat belt on and keep loose objects secured.
- If any other system's warning message is displayed or audible warning is generated, Forward Collision-Avoidance Assist warning message may not be displayed and audible warning may not be generated.
- You may not hear the warning sound of Forward Collision-Avoidance Assist if the surroundings are noisy.
- Forward Collision-Avoidance Assist may turn off or may not operate properly or may operate unnecessarily depending on the road conditions and the surroundings.

WARNING

- Even if there is a problem with Forward Collision-Avoidance Assist, the vehicle's basic braking performance will operate normally.
- During emergency braking, braking control by Forward Collision-Avoidance Assist will automatically cancel when the driver excessively depresses the accelerator pedal or sharply steers the vehicle.

CAUTION

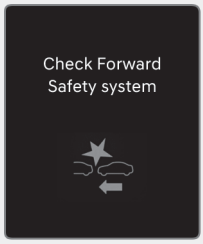
Depending on the condition of the vehicle, pedestrian and cyclist in front and the surroundings, the speed range to operate Forward Collision-Avoidance Assist may reduce. Forward Collision-Avoidance Assist may only warn the driver, or it may not operate.

Information

- In a situation where collision is imminent, braking may be assisted by Forward Collision-Avoidance Assist when braking is insufficient by the driver.
- The images and colors in the instrument cluster may differ depending on the cluster type or theme selected from the instrument cluster.

Forward Collision-Avoidance Assist Malfunction and Limitations

Forward Collision-Avoidance Assist malfunction



OTM070094N

When Forward Collision-Avoidance Assist is not working properly, the 'Check Forward Safety system(s)' warning message will appear, and the ⚠ and warning lights will illuminate on the cluster. Have the vehicle inspected by an authorized HYUNDAI dealer.

Forward Collision-Avoidance Assist disabled



OTM070093N

When the front windshield where the front view camera is located or the sensor is covered with foreign material, such as snow or rain, it can reduce the detecting performance and temporarily limit or disable Forward Collision-Avoidance Assist.

If this occurs the 'Forward Safety system disabled. Camera obscured' warning message, and the ⚠ and warning lights will illuminate on the cluster.

Forward Collision-Avoidance Assist will operate normally when such snow, rain or foreign material is removed.

If Forward Collision-Avoidance Assist does not operate normally after obstruction (snow, rain, or foreign material) is removed, have the vehicle inspected by an authorized HYUNDAI dealer.

WARNING

- **Even though the warning message or warning light does not appear on the cluster, Forward Collision-Avoidance Assist may not properly operate.**
- **Forward Collision-Avoidance Assist may not properly operate in an area (for example, open terrain), where any substance are not detected after turning ON the engine.**
- **If the engine is turned off and restarted while the camera is blocked or malfunctioned, the condition is maintained. Therefore, Forward Collision-Avoidance Assist may not operate properly.**

Limitations of Forward Collision-Avoidance Assist

Forward Collision-Avoidance Assist may not operate normally, or it may operate unexpectedly under the following circumstances:

- The detecting sensor or the surroundings are contaminated or damaged
- The temperature around the front view camera is high or low
- The camera lens is contaminated due to tinted, filmed or coated windshield, damaged glass, or foreign material (sticker, bug, etc.) on the glass
- Moisture is not removed or frozen on the windshield
- Washer fluid is continuously sprayed, or the wiper is on
- Driving in heavy rain or snow, or thick fog
- The field of view of the front view camera is obstructed by sun glare
- Street light or light from an oncoming vehicle is reflected on the wet road surface, such as a puddle on the road
- An object is placed on the dashboard
- Your vehicle is being towed
- The surrounding is very bright
- The surrounding is very dark, such as in a tunnel, etc.
- The brightness changes suddenly, for example when entering or exiting a tunnel
- The brightness outside is low, and the headlights are not on or are not bright
- Driving through steam, smoke or shadow
- Only part of the vehicle, pedestrian or cyclist is detected
- The vehicle in front is a bus, heavy truck, truck with an unusually shaped luggage, trailer, etc.
- The vehicle in front has no tail lights, tail lights are located unusually, etc.
- The brightness outside is low, and the tail lamps are not on or are not bright
- The rear of the front vehicle is small or the vehicle does not look normal, such as when the vehicle is tilted, overturned, or the side of the vehicle is visible, etc.
- The front vehicle's ground clearance is low or high
- A vehicle, pedestrian or cyclist suddenly cuts in front
- The vehicle in front is detected late
- The vehicle in front is suddenly blocked by an obstacle
- The vehicle in front suddenly changes lane or suddenly reduces speed
- The vehicle in front is bent out of shape
- The vehicle in front is covered with snow

- You are departing or returning to the lane
- Unstable driving
- You are on a roundabout and the vehicle in front is not detected
- You are continuously driving in a circle
- The vehicle in front has an unusual shape
- The vehicle in front is driving uphill or downhill
- The pedestrian or cyclist is not fully detected, for example, if the pedestrian is leaning over or is not fully walking upright
- The pedestrian or cyclist is wearing clothing or equipment that makes it difficult to detect

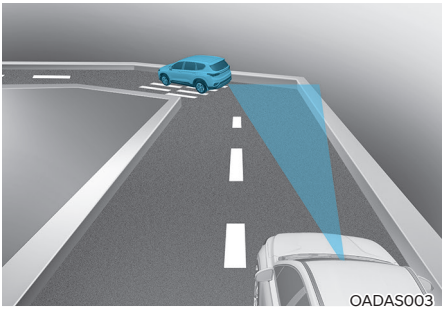


The illustration above shows the image the front view camera is capable of as a vehicle, pedestrian and cyclist.

- The pedestrian or cyclist in front is moving very quickly
- The pedestrian or cyclist in front is short or is posing a low posture
- The pedestrian or cyclist in front has impaired mobility
- The pedestrian or cyclist in front is moving intersected with the driving direction
- There is a group of pedestrians, cyclists or a large crowd in front
- The pedestrian or cyclist is wearing clothing that easily blends into the background, making it difficult to detect
- The pedestrian or cyclist is difficult to distinguish from the similar shaped structure in the surroundings
- You are driving by a pedestrian, cyclist, traffic signs, structures, etc. near the intersection
- Driving in a parking lot
- Driving through a tollgate, construction area, unpaved road, partial paved road, uneven road, speed bumps, etc.
- Driving through a roadside with trees or streetlights
- The adverse road conditions cause excessive vehicle vibrations while driving
- Your vehicle height is low or high due to heavy loads, abnormal tire pressure, etc.
- Driving through a narrow road where trees or grass are overgrown
- There is interference by electromagnetic waves, such as driving in an area with strong radio waves or electrical noise

WARNING

- Driving on a curved road

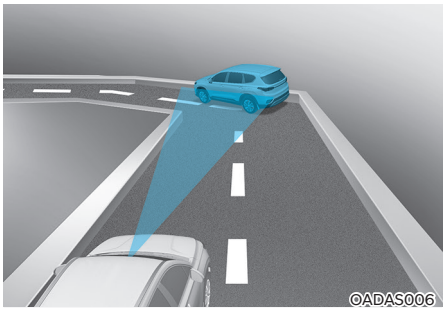


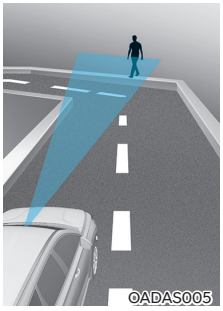


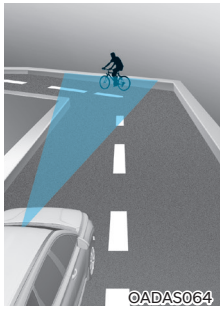


Forward Collision-Avoidance Assist may not detect other vehicles or pedestrians in front of you on curved roads adversely affecting the performance of the sensors. This may result in no warning or braking assist when necessary.

When driving on a curved road, you must maintain a safe braking distance, and if necessary, steer the vehicle and depress the brake pedal to reduce your driving speed in order to maintain a safe distance.



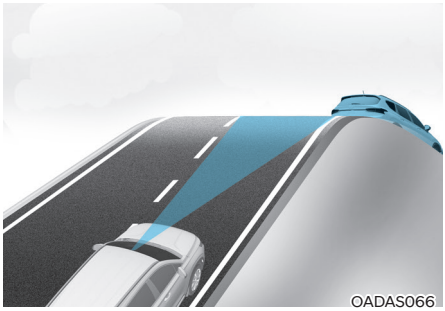




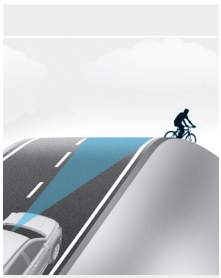
Forward Collision-Avoidance Assist may detect a vehicle, pedestrian or cyclist in the next lane or outside the lane when driving on a curved road.

If this occurs, Forward Collision-Avoidance Assist may unnecessarily warn the driver and control the brake. Always check the traffic conditions around the vehicle.

- **Driving on an inclined road**







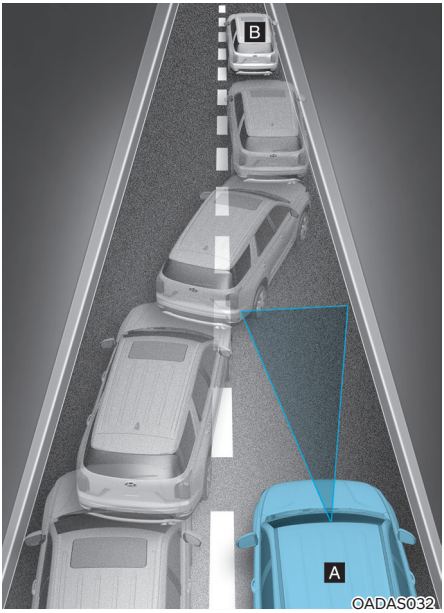
Forward Collision-Avoidance Assist may not detect other vehicles, pedestrians or cyclists in front of you while driving uphill or downhill adversely affecting the performance of the sensors.

This may result in unnecessary warning or braking assist, or no warning or braking assist when necessary.

Also, vehicle speed may rapidly decrease when a vehicle, pedestrian or cyclist ahead is suddenly detected.

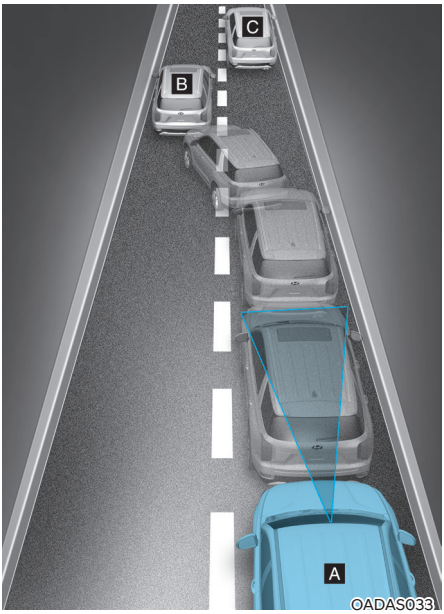
Always have your eyes on the road while driving uphill or downhill and if necessary, steer the vehicle and depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

- **Changing lanes**



[A] : Your vehicle, [B] : Lane changing vehicle

When a vehicle moves into your lane from an adjacent lane, it cannot be detected by the sensor until it is in the sensor's detection range. Forward Collision-Avoidance Assist may not immediately detect the vehicle when the vehicle changes lanes abruptly. In this case, you must maintain a safe braking distance, and if necessary, steer the vehicle and depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

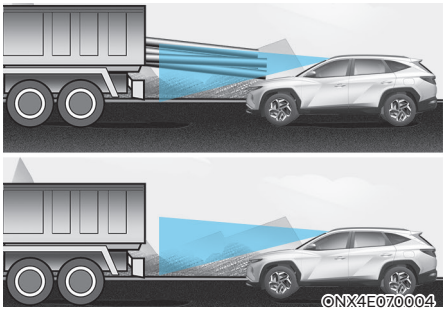


[A] : Your vehicle, [B] : Lane changing vehicle,
[C] : Same lane vehicle

When a vehicle in front of you merges out of the lane, Forward Collision-Avoidance Assist may not immediately detect the vehicle that is now in front of you.

In this case, you must maintain a safe braking distance, and if necessary, steer the vehicle and depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

- **Detecting vehicle**



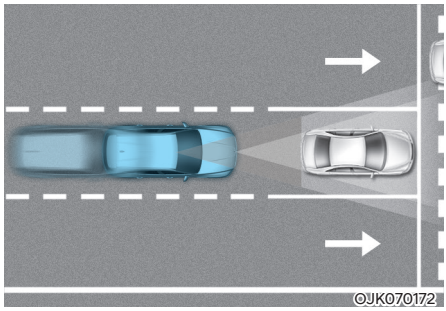
If the vehicle in front of you has cargo that extends rearward from the cab, or when the vehicle in front of you has higher ground clearance, additional special attention is required. Forward Collision-Avoidance Assist may not be able to detect the cargo extending from the vehicle. In these instances, you must maintain a safe braking distance from the rearmost object, and if necessary, steer the vehicle and depress the brake pedal to reduce your driving speed in order to maintain distance.

WARNING

- **When you are towing a trailer or another vehicle, turn off Forward Collision-Avoidance Assist for safety reasons.**
- **Forward Collision-Avoidance Assist may operate if objects that are similar in shape or characteristics to vehicles, pedestrians and cyclists are detected.**
- **Forward Collision-Avoidance Assist does not operate on bicycles, motorcycles, or smaller wheeled objects, such as luggage bags, shopping carts, or strollers.**
- **Forward Collision-Avoidance Assist may not operate normally if interfered by strong electromagnetic waves.**
- **Forward Collision-Avoidance Assist may not operate for 15 seconds after the vehicle is started, or the front view camera is initialized.**

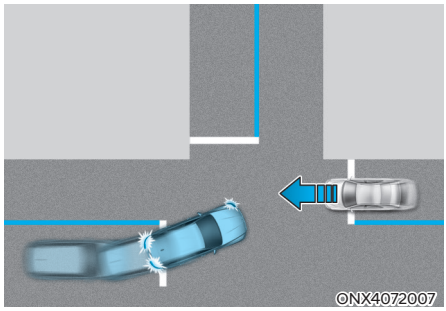
FORWARD COLLISION–AVOIDANCE ASSIST (FCA) (SENSOR FUSION) (IF EQUIPPED)

Basic function



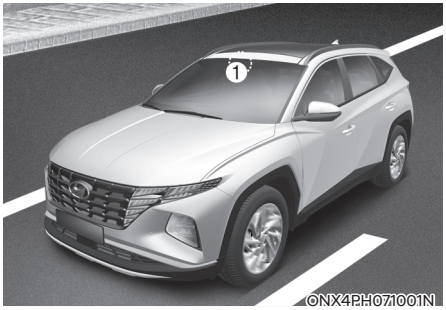
Forward Collision-Avoidance Assist detects a vehicle, a pedestrian, or a cyclist ahead on the road and may warn you of a possible collision with a warning message on the instrument cluster and a warning sound. Also, Forward Collision-Avoidance Assist may assist with braking your vehicle to help reduce collision speed or avoid a collision.

Junction Turning function



Junction Turning function will help avoid a collision with an oncoming vehicle in an adjacent lane when turning left at a crossroad with the turn signal on by applying emergency braking.

Detecting sensor





[1]: Front view camera, [2]: Front radar

Refer to the picture above for the detailed location of the detecting sensors.

CAUTION

Take the following precautions to maintain optimal performance of the detecting sensor:

- **Never disassemble the detecting sensor or sensor assembly, or apply any impact on it.**
- **If the detecting sensors have been replaced or repaired, have the vehicle inspected by an authorized HYUNDAI dealer.**
- **Never install any accessories or stickers on the front windshield, or tint the front windshield.**
- **Exercise extreme caution to keep the front view camera dry.**
- **Never place any reflective objects (for example, white paper, mirror) over the dashboard.**
- **Do not place any objects near the front windshield or install any accessories on the front windshield as it can affect the performance of the defogging and defrosting function of the climate control system, which may prevent the Driver Assistance systems from operating.**
- **Do not apply license plate frame or objects, such as a bumper sticker, film or a bumper guard, near the front radar cover.**
- **Always keep the front radar and cover clean and free of dirt and debris.**

  Use only a soft cloth to wash the vehicle. Do not spray pressurized water directly on the sensor or sensor cover.
- **If unnecessary force has been applied to the radar or around the radar, Forward Collision-Avoidance Assist may not properly operate even though a warning message does not appear on the cluster. Have the vehicle inspected by an authorized HYUNDAI dealer.**
- **Use only genuine parts to repair or replace a damaged front radar cover. Do not apply paint to the front radar cover.**

Forward Collision-Avoidance Assist Settings

Setting features



OTM070090N

Forward Safety

With the engine on, select or deselect 'Driver Assistance → Forward Safety' from the Settings menu to set whether or not to use each function.

- If 'Active Assist' is selected, Forward Collision-Avoidance Assist will warn the driver with a warning message and an audible warning depending on the collision risk levels. Braking assist will be applied depending on the collision risk.
- If 'Warning Only' is selected, Forward Collision-Avoidance Assist will warn the driver with a warning message and an audible warning depending on the collision risk levels. Braking will not be assisted. The driver must apply the brake pedal if necessary.
- If 'Off' is selected, Forward Collision-Avoidance Assist will turn off. The warning light will illuminate on the cluster.

The driver can monitor Forward Collision-Avoidance Assist ON/OFF status from the Settings menu. If the warning light remains ON when Forward Collision-Avoidance Assist is ON, have the vehicle inspected by an authorized HYUNDAI dealer.

WARNING

When the engine is restarted, Forward Collision-Avoidance Assist will always turn on. However, if 'Off' is selected, the driver should always be aware of the surroundings and drive safely.

CAUTION

- **If 'Warning Only' is selected, braking is not assisted.**
- **The settings for Forward Safety include 'Basic function' and 'Junction Turning' (if equipped).**

Information

Forward Collision-Avoidance Assist will turn off when ESC is turned off by pressing and holding the ESC OFF button. The warning light will illuminate on the cluster.



OTM070140N

Warning Timing

With the ignition switch ON, go to 'User Settings → Driver Assistance → Warning Timing (for cluster type)' or 'Setup → Vehicle → Driver Assistance → Warning Timing (for infotainment system type)' from the Settings menu to change the initial warning activation time. Warning Timing is set to Normal at the factory.

WARNING

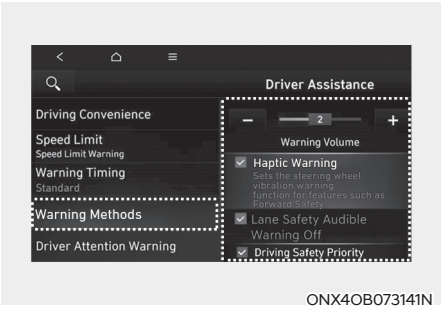
- **Even though 'Normal' is selected for Warning Timing if the vehicle ahead of you suddenly stops, the initial warning activation time may seem late.**
- **Select 'Late' for Warning Timing when traffic is light and your vehicle speed is slow.**

Information

When the engine is restarted, the Warning Timing maintains its last setting.



ONX4OB073097N



ONX4OB073141N

Warning Methods

The Warning Methods can be set with the vehicle on. Select 'User Settings → Driver Assistance → Warning Methods' from the settings menu in the instrument cluster or 'Setup → Vehicle → Driver Assistance → Warning Methods' from the settings menu in the infotainment system to change the following settings.

- **Warning Volume**: Adjusts the volume of the warning sound.

  Even if you set the warning volume to 'Off' or '0', the warning sound will sound at the volume set to 'Low' or '1'. (if equipped)
- **Haptic Warning**: Activate the steering wheel vibration warning. (if equipped)
- **Driving Safety Priority**: Lowers all other audio volumes when the Driving Safety system sounds a warning. (for infotainment system type)

Information

- **If you change the Warning Methods, it can be applied to each function of the driver assistance system. Please check and change it in each function.**
- **If the vehicle is restarted, Warning Methods will maintain the last setting.**
- **The setting menu may not exist based on vehicle specification.**
- **If you turn off the haptic warning when the warning volume is 'Off' or '0', the warning volume will turn on and will be set to 'Medium' or '2'.**
- **If you set the warning volume to 'Off' or '0' when the haptic warning is off, the haptic warning will turn on.**

Forward Collision-Avoidance Assist Operation

Basic function

Warning and control

The basic function for Forward Collision-Avoidance Assist is to help warn and control the vehicle depending on the collision risk level: 'Collision Warning', 'Emergency Braking' and 'Stopping vehicle and ending brake control'.



ONX4072103N

Collision Warning

- To warn the driver of a collision, the 'Collision Warning' warning message will appear on the cluster and an audible warning sound and haptic feedback of the steering wheel (if equipped).
- If a vehicle is detected in front, Forward Collision-Avoidance Assist will operate when your vehicle speed is between approximately 6~112 mph (10~180 km/h).
- If a pedestrian or cyclist is detected in front, Forward Collision-Avoidance Assist will operate when your vehicle speed is between approximately 6~53 mph (10~85 km/h).
- If 'Active Assist' is selected, braking may be assisted.



ONX4E070002

Emergency Braking

In emergency braking situation, braking is assisted with strong braking power under the following vehicle speed conditions.

- Vehicle:

	Driving vehicle	Stopped vehicle
Weak braking power	Approximately 6-112 mph (10-180 km/h)	
Strong braking power	Approximately 6-53 mph (10-85 km/h)	Approximately 6-47 mph (10-75 km/h)

- Pedestrian or cyclist:

The function will operate when your vehicle speed is between approximately 6-40 mph (10-65 km/h).



ONX4E070003

Stopping vehicle and ending brake control

- When the vehicle is stopped due to emergency braking, the 'Drive carefully' warning message will appear on the cluster.

  For your safety, the driver should depress the brake pedal immediately and check the surroundings.
- Brake control will end after the vehicle is stopped by emergency braking for approximately 2 seconds.

Junction Turning function

Warning and control

Junction Turning function will help warn and control the vehicle depending on the collision risk level: ‘Collision Warning’, ‘Emergency Braking’ and ‘Stopping vehicle and ending brake control’



ONX4072109N

Collision Warning

- To warn the driver of a collision, the ‘Collision Warning’ warning message will appear on the cluster and an audible warning sound and haptic feedback of the steering wheel (if equipped).
- The function will operate when your vehicle speed is between approximately 6~19 mph (10~30 km/h) and the oncoming vehicle speed is between approximately 19~44 mph (30~70 km/h).
- If ‘Active Assist’ is selected, braking may be assisted.



ONX4E070007

Emergency Braking

- To warn the driver that emergency braking will be assisted, the ‘Emergency Braking’ warning message will appear on the cluster and an audible warning sound and haptic feedback of the steering wheel (if equipped).
- The function will operate when your vehicle speed is between approximately 6~19 mph (10~30 km/h) and the oncoming vehicle speed is between approximately 19~44 mph (30~70 km/h).
- In an emergency braking situation, braking is assisted with strong braking power by the function to help prevent a collision with the oncoming vehicle.



ONX4E070003

Stopping vehicle and ending brake control

- When the vehicle is stopped due to emergency braking, the 'Drive carefully' warning message will appear on the cluster.

  For your safety, the driver should depress the brake pedal immediately and check the surroundings.
- Brake control will end after the vehicle is stopped by emergency braking for approximately 2 seconds.

WARNING

Take the following precautions when using Forward Collision-Avoidance Assist:

- **For your safety, only change the Settings after parking the vehicle at a safe location.**
- **With 'Active Assist' or 'Warning Only' selected, when ESC is turned off by pressing and holding the ESC OFF button, Forward Collision-Avoidance Assist will turn off automatically. In this case, Forward Collision-Avoidance Assist cannot be set from the Settings menu and the warning light will illuminate on the cluster which is normal. If ESC is turned on by pressing the ESC OFF button, Forward Collision-Avoidance Assist will maintain the last setting.**
- **Forward Collision-Avoidance Assist does not operate in all situations and cannot avoid all collisions.**
- **The driver has the responsibility to control the vehicle. Do not solely depend on Forward Collision-Avoidance Assist. Rather, maintain a safe braking distance, and if necessary, depress the brake pedal to reduce driving speed or to stop the vehicle.**
- **Never deliberately operate Forward Collision-Avoidance Assist on people, objects, etc. It may cause serious injury or death.**
- **Forward Collision-Avoidance Assist may not operate if the driver depresses the brake pedal to avoid collision.**

- Depending on the road and driving conditions, Forward Collision-Avoidance Assist may warn the driver late or may not warn the driver.
- During Forward Collision-Avoidance Assist operation, the vehicle may stop suddenly injuring passengers and shifting loose objects. Always have the seat belt on and keep loose objects secured.
- If any other system's warning message is displayed or audible warning is generated, Forward Collision-Avoidance Assist warning message may not be displayed and audible warning may not be generated.
- You may not hear the warning sound of Forward Collision-Avoidance Assist if the surroundings are noisy.
- Forward Collision-Avoidance Assist may turn off or may not operate properly or may operate unnecessarily depending on the road conditions and the surroundings.

WARNING

- Even if there is a problem with Forward Collision-Avoidance Assist, the vehicle's basic braking performance will operate normally.
- During emergency braking, braking control by Forward Collision-Avoidance Assist will automatically cancel when the driver excessively depresses the accelerator pedal or sharply steers the vehicle.

CAUTION

- Depending on the condition of the vehicle, pedestrian and cyclist in front and the surroundings, the speed range to operate Forward Collision-Avoidance Assist may reduce. Forward Collision-Avoidance Assist may only warn the driver, or it may not operate.
- Forward Collision-Avoidance Assist will operate under certain conditions by judging the risk level based on the condition of the oncoming vehicle, driving direction, speed and surroundings.

Information

- In a situation where collision is imminent, braking may be assisted by Forward Collision-Avoidance Assist when braking is insufficient by the driver.
- The images and colors in the instrument cluster may differ depending on the cluster type or theme selected from the instrument cluster.

Forward Collision-Avoidance Assist Malfunction and Limitations

Forward Collision-Avoidance Assist malfunction



OTM070094N

When Forward Collision-Avoidance Assist is not working properly, the 'Check forward safety systems' warning message will appear, and the ⚠ and warning lights will illuminate on the cluster. Have the vehicle inspected by an authorized HYUNDAI dealer.

Forward Collision-Avoidance Assist disabled



OTM070093N



OTM070095N

When the front windshield where the front view camera is located, front radar Cover, or sensor is covered with foreign material, such as snow or rain, it can reduce the detecting performance and temporarily limit or disable Forward Collision-Avoidance Assist.

If this occurs the 'Forward Safety systems disabled. Camera obscured' or the 'Forward Safety system disabled. Radar blocked' warning message, and the ⚠ and warning lights will illuminate on the cluster.

Forward Collision-Avoidance Assist will operate normally when when such snow, rain or foreign material is removed.

If Forward Collision-Avoidance Assist does not operate normally after obstruction (snow, rain, or foreign material) is removed, have the vehicle inspected by an authorized HYUNDAI dealer.

WARNING

- **Even though the warning message or warning light does not appear on the cluster, Forward Collision-Avoidance Assist may not properly operate.**
- **Forward Collision-Avoidance Assist may not properly operate in an area (for example, open terrain), where any substance are not detected after turning ON the engine.**
- **If the engine is turned off and restarted while the camera is blocked or malfunctioned, the condition is maintained. Therefore, Forward Collision-Avoidance Assist may not operate properly.**

Limitations of Forward Collision-Avoidance Assist

Forward Collision-Avoidance Assist may not operate normally, or it may operate unexpectedly under the following circumstances:

- The detecting sensor or the surroundings are contaminated or damaged
- The temperature around the front view camera is high or low due to surrounding environment
- The camera lens is contaminated due to tinted, filmed or coated windshield, damaged glass, or sticky foreign material (sticker, bug, etc.) on the glass
- Moisture is not removed or frozen on the windshield
- Washer fluid is continuously sprayed, or the wiper is on
- Driving in heavy rain or snow, or thick fog
- The field of view of the front view camera is obstructed by sun glare
- Street light or light from an oncoming vehicle is reflected on the wet road surface, such as a puddle on the road
- An object is placed on the dashboard
- Your vehicle is being towed
- The surrounding is very bright
- The surrounding is very dark, such as in a tunnel, etc.
- The brightness changes suddenly, for example when entering or exiting a tunnel
- The brightness outside is low, and the headlights are not on or are not bright
- Driving through steam, smoke or shadow
- Only part of the vehicle, pedestrian or cyclist is detected
- The vehicle in front is a bus, heavy truck, truck with an unusually shaped luggage, trailer, etc.
- The vehicle in front has no tail lights, tail lights are located unusually, etc.
- The brightness outside is low, and the tail lamps are not on or are not bright
- The rear of the front vehicle is small or the vehicle does not look normal, such as when the vehicle is tilted, overturned, or the side of the vehicle is visible, etc.
- The front vehicle's ground clearance is low or high
- A vehicle, pedestrian or cyclist suddenly cuts in front
- The bumper around the front radar is impacted, damaged or the front radar is out of position
- The temperature around the front radar is high or low
- Driving through a tunnel or iron bridge
- Driving in large areas where there are few vehicles or structures (for example, desert, meadow, suburb, etc.)
- Driving near areas containing metal substances, such as a construction zone, railroad, etc.

- A material is near that reflects very well on the front radar, such as a guardrail, nearby vehicle, etc.
- The cyclist in front is on a bicycle made of material that does not reflect on the front radar
- The vehicle in front is detected late
- The vehicle in front is suddenly blocked by an obstacle
- The vehicle in front suddenly changes lane or suddenly reduces speed
- The vehicle in front is bent out of shape
- The vehicle in front is covered with snow
- You are departing or returning to the lane
- Unstable driving
- You are on a roundabout and the vehicle in front is not detected
- You are continuously driving in a circle
- The vehicle in front has an unusual shape
- The vehicle in front is driving uphill or downhill
- The pedestrian or cyclist is not fully detected, for example, if the pedestrian is leaning over or is not fully walking upright
- The pedestrian or cyclist is wearing clothing or equipment that makes it difficult to detect


OADAS044

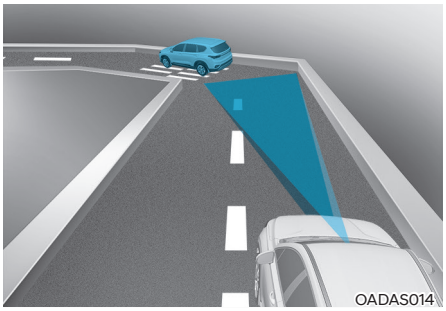
The illustration above shows the image the front view camera and front radar are capable of detecting as a vehicle, pedestrian and cyclist.

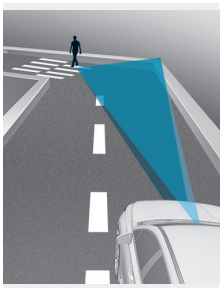
- The pedestrian or cyclist in front is moving very quickly
- The pedestrian or cyclist in front is short or is posing a low posture
- The pedestrian or cyclist in front has impaired mobility
- The pedestrian or cyclist in front is moving intersected with the driving direction
- There is a group of pedestrians, cyclists or a large crowd in front

- The pedestrian or cyclist is wearing clothing that easily blends into the background, making it difficult to detect
- The pedestrian or cyclist is difficult to distinguish from the similar shaped structure in the surroundings
- You are driving by a pedestrian, cyclist, traffic sign, structure, etc. near the intersection
- Driving in a parking lot
- Driving through a tollgate, construction area, unpaved road, partial paved road, uneven road, speed bumps, etc.
- Driving on an inclined road, curved road, etc.
- Driving through a roadside with trees or streetlights
- The adverse road conditions cause excessive vehicle vibrations while driving
- Your vehicle height is low or high due to heavy loads, abnormal tire pressure, etc.
- Driving through a narrow road where trees or grass are overgrown
- There is interference by electromagnetic waves, such as driving in an area with strong radio waves or electrical noise

WARNING

- **Driving on a curved road**

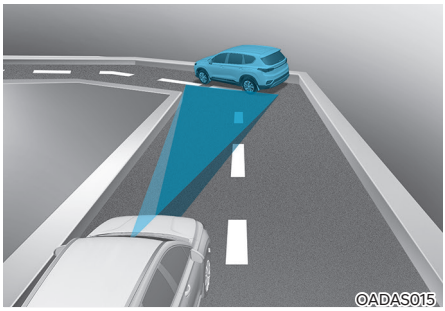

OADAS014


OADAS016


OADAS018

Forward Collision-Avoidance Assist may not detect the vehicle, pedestrian or cyclist in front of you on curved roads adversely affecting the performance of the sensors. This may result in no warning or braking assist when necessary.

When driving on a curved road, you must maintain a safe braking distance, and if necessary, steer the vehicle and depress the brake pedal to reduce your driving speed in order to maintain a safe distance.



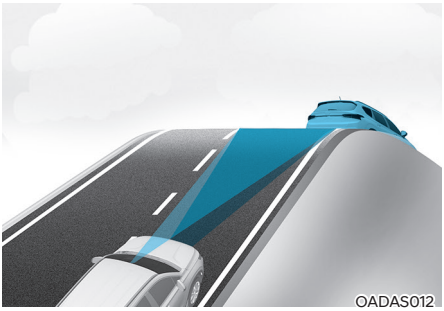




Forward Collision-Avoidance Assist may detect a vehicle, pedestrian or cyclist in the next lane or outside the lane when driving on a curved road.

If this occurs, Forward Collision-Avoidance Assist may unnecessarily warn the driver and control the brake. Always check the traffic conditions around the vehicle.

- **Driving on an inclined road**







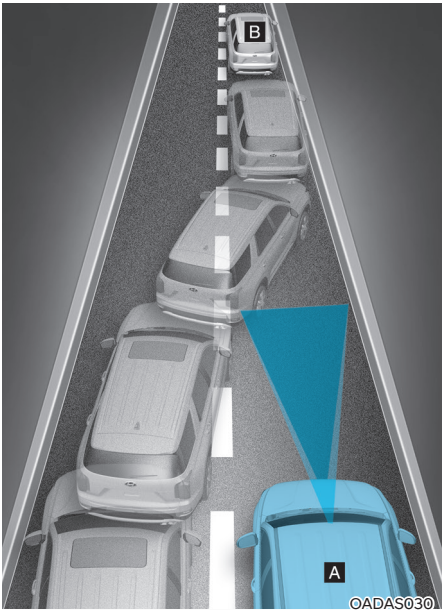
Forward Collision-Avoidance Assist may not detect the vehicle, pedestrian or cyclist in front of you while driving uphill or downhill adversely affecting the performance of the sensors.

This may result in unnecessary warning or braking assist, or no warning or braking assist when necessary.

Also, vehicle speed may rapidly decrease when a vehicle, pedestrian or cyclist ahead is suddenly detected.

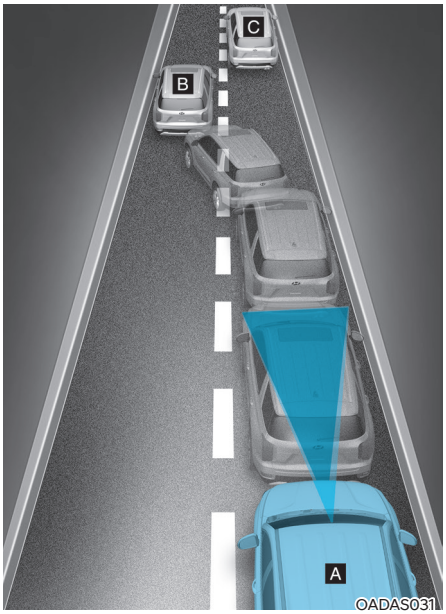
Always have your eyes on the road while driving uphill or downhill and if necessary, steer your vehicle and depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

- **Changing lanes**



[A] : Your vehicle, [B] : Lane changing vehicle

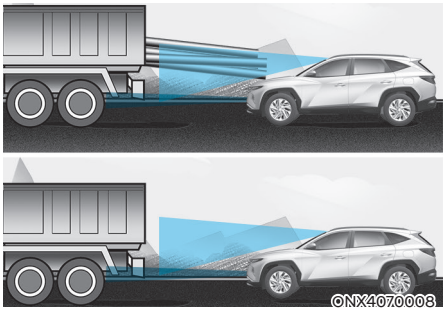
When a vehicle moves into your lane from an adjacent lane, it cannot be detected by the sensor until it is in the sensor's detection range. Forward Collision-Avoidance Assist may not immediately detect the vehicle when the vehicle changes lanes abruptly. In this case, you must maintain a safe braking distance, and if necessary, steer your vehicle and depress the brake pedal to reduce your driving speed in order to maintain a safe distance.



[A] : Your vehicle, [B] : Lane changing vehicle,
[C] : Same lane vehicle

When a vehicle in front of you merges out of the lane, Forward Collision-Avoidance Assist may not immediately detect the vehicle that is now in front of you. In this case, you must maintain a safe braking distance, and if necessary, steer your vehicle and depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

- **Detecting vehicle**



If the vehicle in front of you has cargo that extends rearward from the cab, or when the vehicle in front of you has higher ground clearance, additional special attention is required. Forward Collision-Avoidance Assist may not be able to detect the cargo extending from the vehicle. In these instances, you must maintain a safe braking distance from the rearmost object, and if necessary, steer your vehicle and depress the brake pedal to reduce your driving speed in order to maintain distance.

WARNING

- **When you are towing a trailer or another vehicle, turn off Forward Collision-Avoidance Assist for safety reasons.**
- **Forward Collision-Avoidance Assist may operate if objects that are similar in shape or characteristics to vehicles, pedestrians and cyclists are detected.**
- **Forward Collision-Avoidance Assist does not operate on bicycles, motorcycles, or smaller wheeled objects, such as luggage bags, shopping carts, or strollers.**
- **Forward Collision-Avoidance Assist may not operate normally if interfered by strong electromagnetic waves.**
- **Forward Collision-Avoidance Assist may not operate for 15 seconds after the vehicle is started, or the front view camera is initialized.**

Information

This device complies with Part 15 of the FCC rules.

Operation is subject to the following two conditions:

1. **This device may not cause harmful interference.**
2. **This device must accept any interference received, including interference that may cause undesired operation.**
3. **Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.**

Information

Radio frequency radiation exposure information:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

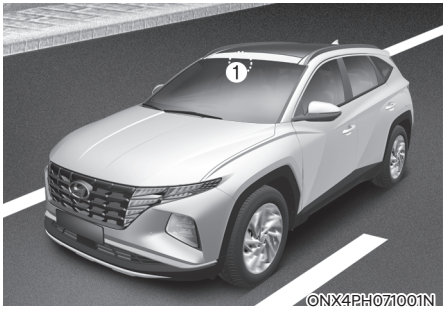
This equipment should be installed and operated with minimum distance of 8 in. (20 cm) between the radiator (antenna) and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

LANE KEEPING ASSIST (LKA)

While driving over a certain speed, Lane Keeping Assist detects lane markings (or road edges) and may warn you if your vehicle leaves the lane without using the turn signal and may assist with steering to prevent your vehicle departing from its travel lane.

Detecting sensor



[1] : Front view camera

The front view camera is used as a detecting sensor to detect lane markings (or road edges).

Refer to the picture above for the detailed location of the detecting sensor.

CAUTION

For more details on the precautions of the front view camera, refer to "Forward Collision-Avoidance Assist (FCA)" section in this chapter.

Lane Keeping Assist Settings

Setting features



Lane Safety

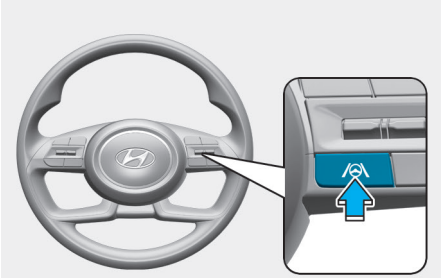
With the engine on, select or deselect 'Driver Assistance → Lane safety' from the Settings menu to set whether or not to use each function.

- If 'Assist' is selected, Lane Keeping Assist will automatically assist the driver's steering when lane departure is detected to help prevent the vehicle from moving out of its lane.
- If 'Warning Only' is selected, Lane Keeping Assist will warn the driver with an audible warning when lane departure is detected. The driver must steer the vehicle.
- If 'Off' is selected, Lane Keeping Assist will turn off. The indicator light will turn off on the cluster.

WARNING

- **If 'Warning Only' is selected, steering is not assisted.**
- **Lane Keeping Assist does not control the steering wheel when the vehicle is driven in the middle of the lane.**
- **The driver should always be aware of the surroundings and steer the vehicle if 'Off' is selected.**

Turning Lane Keeping Assist On/Off (Lane Driving Assist button)



OCN7060087

With the engine on, press and hold the Lane Driving Assist button located on the steering wheel to turn on Lane Keeping Assist. The white or green indicator light will illuminate on the cluster.

Press and hold the button again to turn off Lane Keeping Assist.

If the engine is restarted, Lane Keeping Assist will maintain the last setting.

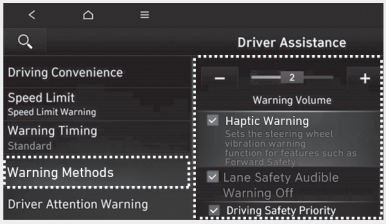
CAUTION

When the Lane Driving Assist button is pressed shortly, Lane Following Assist will turn on and off.

If the vehicle is restarted, Lane Keeping Assist will maintain the last setting.



ONX4OB073097N



ONX4OB073141N

Warning Methods

The Warning Methods can be set with the vehicle on. Select 'User Settings → Driver Assistance → Warning Methods' from the settings menu in the instrument cluster or 'Setup → Vehicle → Driver Assistance → Warning Methods' from the settings menu in the infotainment system to change the following settings:

- **Warning Volume**: Adjusts the volume of the warning sound.

  Even if you set the warning volume to 'Off' or '0', the warning sound will sound at the volume set to 'Low' or '1'. (if equipped)
- **Haptic Warning**: Activate the steering wheel vibration warning. (if equipped)
- **Lane Safety Audible Warning Off**: Turns off the Lane Safety Audible Warning, even when both warning volume and haptic warning are on. (if equipped)

- **Driving Safety Priority**: Lowers all other audio volumes when the Driving Safety system sounds a warning. (for infotainment system type)

Information

- **If you change the Warning Methods, it can be applied to each function of the driver assistance system. Please check and change it in each function.**
- **If the vehicle is restarted, Warning Methods will maintain the last setting.**
- **The setting menu may not exist based on vehicle specification.**
- **If you turn off the haptic warning when the warning volume is 'Off' or '0', the warning volume will turn on and will be set to 'Medium' or '2'.**
- **If you set the warning volume to 'Off' or '0' when the haptic warning is off, the haptic warning will turn on.**
- **The 'Lane Safety Audible Warning Off' can be set when both the Warning Volume and the Haptic Warning are on.**

Lane Keeping Assist Operation

Lane Keeping Assist warning and control

Lane Keeping Assist will help warn and help control the vehicle with Lane Departure Warning and Lane Keeping Assist.

■ Left



ONX4070010

■ Right



ONX4070009

Lane Departure Warning

- To warn the driver that the vehicle is departing from the projected lane in front, the green indicator light will blink on the cluster, the lane line will blink on the cluster depending on which direction the vehicle is veering, and an audible warning sound and haptic feedback of the steering wheel (if equipped).
- Lane Keeping Assist will operate when your vehicle speed is between approximately 40~120 mph (60~200 km/h).

Lane Keeping Assist

- To warn the driver that the vehicle is departing from the projected lane in front, the green indicator light will blink on the cluster, and the steering wheel will make adjustments to keep the vehicle inside the lane.
- Lane Keeping Assist will operate when your vehicle speed is between approximately 40~120 mph (60~200 km/h).



ONX4E070091

Hands-off warning

If the driver takes their hands off the steering wheel for several seconds, the 'Place hands on the steering wheel' warning message will appear on the cluster, and an audible warning will sound in stages.

WARNING

- **The steering wheel may not be assisted if the steering wheel is held very tight or the steering wheel is steered over a certain degree.**
- **Lane Keeping Assist does not operate at all times. It is the responsibility of the driver to safely steer the vehicle and to maintain the vehicle in its lane.**
- **The hands-off warning message may appear late depending on road conditions. Always have your hands on the steering wheel while driving.**
- **If the steering wheel is held very lightly, the hands-off warning message may appear because Lane Keeping Assist may not recognize that the driver has their hands on the steering wheel.**
- **If you attach objects to the steering wheel, the hands-off warning may not work properly.**

Information

- **You may change settings from the instrument cluster (User Settings) or infotainment system (Vehicle Settings), whichever option that is provided with your vehicle. For more details, see "User Settings" section in chapter 4, or "Vehicle Settings" section in supplied Infotainment Manual.**
- **When lane markings (or road edges) are detected, the lane lines on the cluster will change from grey to white and the green indicator light will illuminate.**

■ Lane undetected



ONX4PH071013N

■ Lane detected



ONX4070012

- **The images and colors in the instrument cluster may differ depending on the cluster type or theme selected from the instrument cluster.**
- **Even though the steering is assisted by Lane Keeping Assist, the driver may control the steering wheel.**
- **The steering wheel may feel heavier or lighter when the steering wheel is assisted by Lane Keeping Assist than when it is not.**

Lane Keeping Assist Malfunction and Limitations

Lane Keeping Assist malfunction



OTM070035N

When Lane Keeping Assist is not working properly, the 'Check Lane Keeping Assist (LKA) system' warning message will appear and the yellow indicator light will illuminate on the cluster. If this occurs, have the vehicle inspected by an authorized HYUNDAI dealer.

Limitations of Lane Keeping Assist

Lane Keeping Assist may not operate normally or may operate unexpectedly under the following circumstances:

- The lane is contaminated or difficult to detect because:
  - The lane markings (or road edge) is covered with rain, snow, dirt, oil, etc.
  - The color of the lane marking (or road edge) is not distinguishable from the road
  - There are markings (or road edges) on the road near the lane or the markings (or road edges) on the road looks similar to the lane markings (or road edge)
  - The shadow is on the lane marking (or road edge) by a median strip, trees, guardrail, noise barriers, etc.
- The lane number increases or decreases, or the lane markings (or road edges) are crossing
- There are more than two lane markings (or road edges) on the road
- The lane markings (or road edges) are complicated or a structure substitutes for the lines, such as a construction area
- There are road markings, such as zigzag lanes, crosswalk markings and road signs
- The lane suddenly disappears, such as at the intersection
- The lane (or road width) is very wide or narrow

- There is a road edge without a lane
- There is a boundary structure in the roadway, such as a tollgate, sidewalk, curb, etc.
- The distance to the front vehicle is extremely short or the vehicle in front is covering the lane marking (or road edge)

Information

For more details on the limitations of the front view camera, refer to "Forward Collision-Avoidance Assist (FCA)" section in this chapter.

WARNING

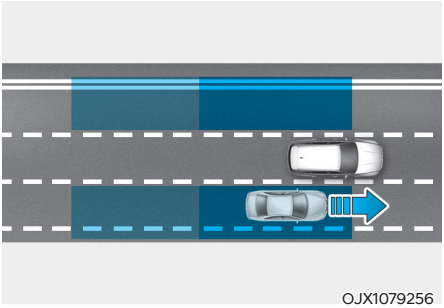
Take the following precautions when using Lane Keeping Assist:

- **The driver has the responsibility to safely drive and control the vehicle. Do not solely rely on Lane Keeping Assist and drive dangerously.**
- **The operation of Lane Keeping Assist can be cancelled or not work properly depending on road conditions and surroundings. Always be cautious while driving.**
- **Refer to "Limitations of Lane Keeping Assist" if the lane is not detected properly.**
- **When you are towing a trailer or another vehicle, turn off Lane Keeping Assist for safety reasons.**
- **If the vehicle is driven at high speed, the steering wheel will not be controlled. The driver must always follow the speed limit when using Lane Keeping Assist.**
- **If any other system's warning message is displayed or audible warning is generated, Lane Keeping Assist warning message may not be displayed and audible warning may not be generated.**
- **You may not hear the warning sound of Lane Keeping Assist if the surroundings are noisy.**
- **If you attach objects to the steering wheel, steering may not be assisted properly.**
- **Lane Keeping Assist may not operate for 15 seconds after the vehicle is started, or the front view camera is initialized.**
- **Lane Keeping Assist will not operate when:**
  - **The turn signal or hazard warning flasher is turned on**
  - **The vehicle is not driven in the center of the lane when Lane Keeping Assist is turned on or right after changing a lane**
  - **ESC (Electronic Stability Control) or VSM (Vehicle Stability Management) is activated**
  - **The vehicle is driven on a sharp curve**
  - **Vehicle speed is below 35 mph (55 km/h) or above 130 mph (210 km/h)**
  - **The vehicle makes sudden lane changes**
  - **The vehicle brakes suddenly**

BLIND-SPOT COLLISION-AVOIDANCE ASSIST (BCA) (IF EQUIPPED)

Blind-Spot Collision-Avoidance Assist detects approaching vehicles in the driver's blind spot areas and warn you of a possible collision with a warning light and a warning sound.

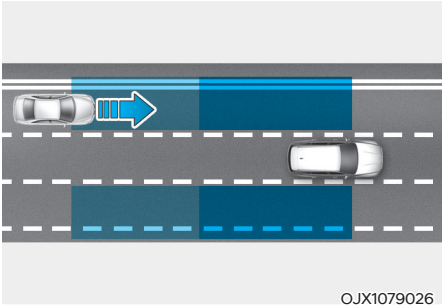
If there is a collision risk when changing lanes or exiting a parallel space, Blind-Spot Collision-Avoidance Assist may assist with braking your vehicle to help avoid a collision.


OJX1079256

Blind-Spot Collision-Avoidance Assist helps detect and inform the driver that a vehicle is in the blind spot.

CAUTION

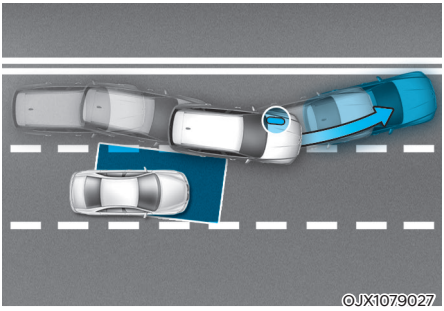
The detecting range may vary depending on the speed of your vehicle. However, even if there is a vehicle in the blind spot area, Blind-Spot Collision-Avoidance Assist may not warn you when you pass by at high speeds.


OJX1079026

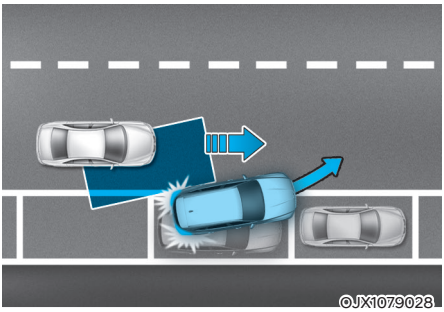
Blind-Spot Collision-Avoidance Assist helps detect and informs the driver that a vehicle is approaching at high speed from the blind spot area.

CAUTION

Warning timing may vary depending on the speed of the vehicle approaching at high speed.

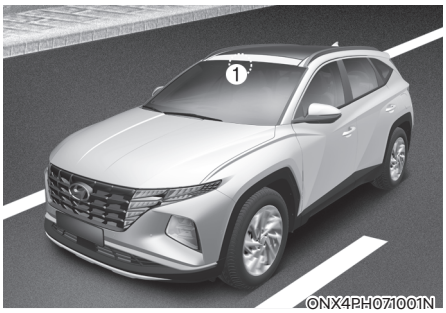

OJX1079027

When changing lanes by detecting the lane ahead, if Blind-Spot Collision-Avoidance Assist judges that there is a collision risk with an approaching vehicle in the blind spot, it will help avoid a collision by applying the brake.



When you are driving forward out of a parking space, if Blind-Spot Collision-Avoidance Assist judges that there is a collision risk with an approaching vehicle in the blind spot, it will help avoid a collision by applying the brake.

Detecting sensor





[1] : Front view camera, [2] : Rear corner radar

Refer to the picture above for the detailed location of the detecting sensors.

CAUTION

Take the following precautions to maintain optimal performance of the detecting sensor:

- **Never disassemble the rear corner radar or radar assembly, or apply any damage on it.**
- **If the rear corner radar sensor or any body panels near the sensor have been damaged or impacted in any way, Blind-Spot Collision Avoidance Assist may not operate properly, even though the warning message does not appear on the cluster. Have the vehicle inspected by an authorized HYUNDAI dealer.**

- **If the rear corner radars have been replaced or repaired, have the vehicle inspected by an authorized HYUNDAI dealer.**
- **Use only genuine parts to repair the rear bumper where the rear corner radar is located.**
- **Rear bumper genuine parts with rear corner radars have proven their performance. Replacing or painting the rear bumper may result in poor performance of Blind-Spot Collision-Avoidance Assist. When the parts need to be replaced or modified, make sure to use qualified products.**
- **Do not apply a license plate frame or objects, such as a bumper sticker, film or a bumper guard near the rear corner radar.**
- **Blind-Spot Collision-Avoidance Assist may not work properly if the bumper has been replaced, or the surroundings of the rear corner radar has been damaged or paint has been applied.**
- **If a trailer, carrier, etc. is installed, it may adversely affect the performance of the rear corner radar or Blind-Spot Collision-Avoidance Assist may not operate.**

For more details on the precautions of the front view camera, refer to "Forward Collision-Avoidance Assist (FCA)" section in this chapter.

Blind-Spot Collision-Avoidance Assist Settings

Setting features



OTM070096N

Blind-Spot Safety

With the engine on, select or deselect 'Driver Assistance → Blind-spot Safety' from the Settings menu to set whether or not to use each function.

- If 'Active Assist' is selected, Blind-Spot Collision-Avoidance Assist will warn the driver with a warning message, an audible warning and braking assist will be applied depending on the collision risk levels.
- If 'Warning Only' is selected, Blind-Spot Collision-Avoidance Assist will warn the driver with a warning message and an audible warning depending on the collision risk levels. Braking will not be assisted.
- If 'Off' is selected, Blind-Spot Collision-Avoidance Assist will turn off.



OTM070097N

When the engine is restarted with Blind-Spot Collision-Avoidance Assist off, the 'Blind-Spot Safety System is Off' message will appear on the cluster.

If you change the setting from 'Off' to 'Active Assist' or 'Warning Only', the warning light on the side view mirror will blink for three seconds.

In addition, if the engine is turned on, when Blind-Spot Collision-Avoidance Assist is set to 'Active Assist' or 'Warning Only', the warning light on the side view mirror will blink for three seconds.

WARNING

- **If 'Warning Only' is selected, braking is not assisted.**
- **If 'Off' is selected, the driver should always be aware of the surroundings and drive safely.**

Information

If the engine is restarted, Blind-Spot Collision-Avoidance Assist will maintain the last setting.



OTM070140N

Warning Timing

With the ignition switch ON, go to 'User Settings → Driver Assistance → Warning Timing' (for cluster type) or 'Setup → Vehicle → Driver Assistance → Warning Timing' (for infotainment system type) from the Settings menu to change the initial warning activation time. Warning Timing is set to 'Normal' at the factory.

WARNING

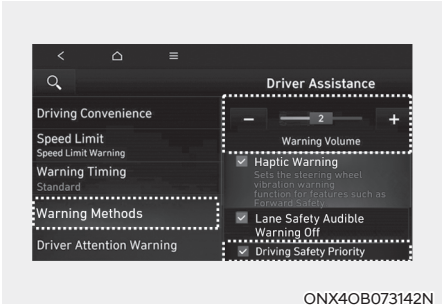
- **Even though 'Normal' is selected for Warning Timing if the vehicle ahead of you suddenly stops, the initial warning activation time may seem late.**
- **Select 'Late' for Warning Timing when traffic is light and your vehicle speed is slow.**

Information

When the engine is restarted, the Warning Timing maintains its last setting.



ONX4OB073097N



ONX4OB073142N

Warning Methods

The Warning Methods can be set with the vehicle on. Select 'User Settings → Driver Assistance → Warning Methods' from the settings menu in the instrument cluster or 'Setup → Vehicle → Driver Assistance → Warning Methods' from the settings menu in the infotainment system to change the following settings.

- **Warning Volume**: Adjusts the volume of the warning sound.

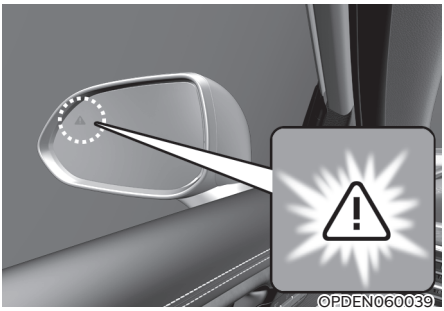
  Even if you set the warning volume to 'Off' or '0', the warning sound will sound at the volume set to 'Low' or '1'. (if equipped)
- **Haptic Warning**: Activate the steering wheel vibration warning. (if equipped)
- **Driving Safety Priority**: Lowers all other audio volumes when the Driving Safety system sounds a warning. (for infotainment system type)

Information

- **If you change the Warning Methods, it can be applied to each function of the driver assistance system. Please check and change it in each function.**
- **If the vehicle is restarted, Warning Methods will maintain the last setting.**
- **The setting menu may not exist based on vehicle specification.**
- **If you turn off the haptic warning when the warning volume is 'Off' or '0', the warning volume will turn on and will be set to 'Medium' or '2'.**
- **If you set the warning volume to 'Off' or '0' when the haptic warning is off, the haptic warning will turn on.**

Blind-Spot Collision-Avoidance Assist Operation

Warning



Vehicle detection

The warning light on the side view mirror appears when the vehicle on both lanes are detected from the rear.

A vehicle is detected under the following conditions:

- Your vehicle speed is above 12 mph (20 km/h)
- The speed of the vehicle in your blind spot area is above 7 mph (10 km/h)

Collision warning

In the vehicle detection state, collision warning may operate when the turn signal is turned on in the direction of a detected vehicle in the blind spot area.

- To warn you of a potential collision, the warning light on the side view mirror may blink, an audible warning may sound, and the steering wheel may vibrate.
- When the turn signal is turned off or you move away from the lane, the collision warning may cancel, and the function may return to vehicle detection state.

Collision warning may warn you under the following conditions:

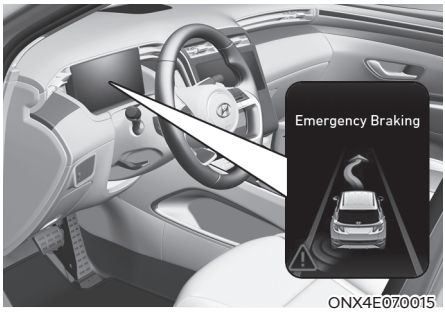
- Your vehicle speed is above 25 mph (40 km/h)
- The speed of the vehicle in your blind spot area is above 7 mph (10 km/h)

WARNING

- **The detecting range of the rear corner radar is determined by a standard road width, therefore, on a narrow road, Blind-Spot Collision-Avoidance Assist may detect other vehicles in the next next lane and warn you. In contrast, on a wide road, Blind-Spot Collision-Avoidance Assist may not be able to detect a vehicle driving in the next lane and may not warn you.**
- **When the hazard warning flasher is on, the collision warning by the turn signal will not operate.**

Information

- **If the driver's seat is on the left side, the collision warning may occur when you turn left. Maintain a proper distance with the vehicles in the left lane. If the driver's seat is on the right side, the collision warning may occur when you turn right. Maintain a proper distance with the vehicles in the right lane.**
- **The images and colors in the instrument cluster may differ depending on the cluster type or theme selected from the instrument cluster.**

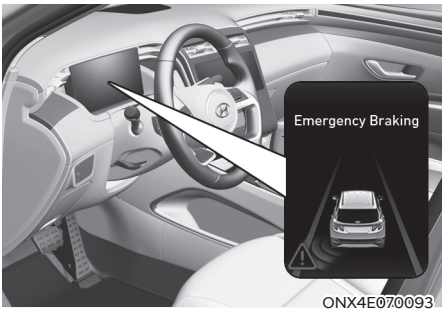


Collision-Avoidance Assist (while driving)

- To warn the driver of a collision, the warning light on the side view mirror will blink and a warning message will appear on the cluster. At the same time, an audible warning sound and haptic feedback of the steering wheel (if equipped).
- Blind-Spot Collision-Avoidance Assist will operate when your vehicle speed is between 40~120 mph (60~200 km/h). and both lane markings of the driving lane are detected.
- Emergency Braking will be assisted to help prevent a collision with the vehicle in the blind spot area.

WARNING

- **Blind-Spot Collision-Avoidance Assist will be canceled under the following circumstances:**
  - **Your vehicle enters the next lane by a certain distance**
  - **Your vehicle is away from the collision risk**
  - **The steering wheel is sharply steered**
  - **The brake pedal is depressed**
  - **Forward Collision-Avoidance Assist is operating**
- **After Blind-Spot Collision-Avoidance Assist operation or changing lane, you must drive to the center of the lane. Blind-Spot Collision-Avoidance Assist will not operate if the vehicle is not driven in the center of the lane.**



ONX4E070093

Collision-Avoidance Assist (while departing)

- To warn the driver of a collision, the warning light on the side view mirror will blink and a warning message will appear on the cluster. At the same time, an audible warning sound and haptic feedback of the steering wheel (if equipped).
- Blind-Spot Collision-Avoidance Assist will operate when your vehicle speed is below 2 mph (3 km/h) and the speed of the vehicle in the blind spot area is above 3 mph (5 km/h).
- Emergency Braking will be assisted to help prevent a collision with the vehicle in the blind spot area.



ONX4E070003

- When the vehicle is stopped due to emergency braking, the ‘Drive carefully’ warning message will appear on the cluster.

  For your safety, the driver should depress the brake pedal immediately and check the surroundings.
- Brake control will end after the vehicle is stopped by emergency braking for approximately 2 seconds.

WARNING

Take the following precautions when using Blind-Spot Collision-Avoidance Assist :

- **For your safety, only change the Settings after parking the vehicle at a safe location.**
- **If any other system's warning message is displayed or audible warning is generated, Blind-Spot Collision-Avoidance Assist warning message may not be displayed and audible warning may not be generated.**
- **You may not hear the warning sound of Blind-Spot Collision-Avoidance Assist if the surroundings are noisy.**
- **Blind-Spot Collision-Avoidance Assist may not operate if the driver applies the brake pedal to avoid collision.**
- **When Blind-Spot Collision-Avoidance Assist is operating, braking control by the function will automatically cancel when the driver excessively depresses the accelerator pedal or sharply steers the vehicle.**
- **During Blind-Spot Collision-Avoidance Assist operation, the vehicle may stop suddenly injuring passengers and shifting loose objects. Always have the seat belt on and keep loose objects secured.**
- **Even if there is a problem with Blind-Spot Collision-Avoidance Assist, the vehicle's basic braking performance will operate normally.**
- **Blind-Spot Collision-Avoidance Assist does not operate in all situations and cannot avoid all collisions.**
- **Blind-Spot Collision-Avoidance Assist may warn the driver late or may not warn the driver depending on the road and driving conditions.**
- **Driver should maintain control of the vehicle at all times. Do not depend on Blind-Spot Collision-Avoidance Assist. Maintain a safe braking distance, and if necessary, depress the brake pedal to reduce driving speed or to stop the vehicle.**
- **Never operate Blind-Spot Collision-Avoidance Assist on people, animal, objects, etc. It may cause serious injury or death.**

WARNING

The brake control may not operate properly depending on the status of ESC (Electronic Stability Control).

There will only be a warning when:

- **The ESC (Electronic Stability Control) warning light is on**
- **ESC (Electronic Stability Control) is engaged in a different function**

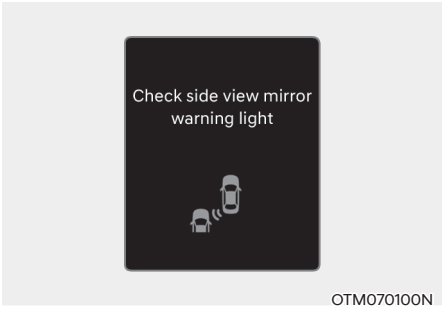
Blind-Spot Collision-Avoidance Assist Malfunction and Limitations

Blind-Spot Collision-Avoidance Assist malfunction



OTM070099N

When Blind-Spot Collision-Avoidance Assist is not working properly, the 'Check Blind-Spot Safety system' warning message will appear on the cluster, and the master (⚠) warning light will illuminate on the cluster. If this occurs, have the vehicle inspected by an authorized HYUNDAI dealer



OTM070100N

When the side view mirror warning light is not working properly, the 'Check side view mirror warning light' warning message will appear on the cluster for several seconds, and the master (⚠) warning light will illuminate on the cluster. If this occurs, have the vehicle inspected by an authorized HYUNDAI dealer.

Blind-Spot Collision-Avoidance Assist disabled



OTM070098N

When the rear bumper around the rear corner radar or sensor is covered with foreign material, such as snow or rain, or installing a trailer or carrier, it can reduce the detecting performance and temporarily limit or disable Blind-Spot Collision-Avoidance Assist.

If this occurs, the 'Blind-Spot Safety system disabled. Radar blocked' warning message will appear on the cluster.

Blind-Spot Collision-Avoidance Assist will operate normally when such foreign material or trailer, etc. is removed, and then the engine is restarted.

If Blind-Spot Collision-Avoidance Assist does not operate normally after it is removed, have the vehicle inspected by an authorized HYUNDAI dealer.

WARNING

- **Even though the warning message does not appear on the cluster, Blind-Spot Collision-Avoidance Assist may not properly operate.**
- **Blind-Spot Collision-Avoidance Assist may not properly operate in an area (for example, open terrain) where any substance are not detected right after the engine is turned on, or when the detecting sensor is blocked with foreign material right after the engine is turned on.**

CAUTION

Turn off Blind-Spot Collision-Avoidance Assist to install or remove a trailer, carrier, or another attachment. Turn on Blind-Spot Collision-Avoidance Assist when finished.

Limitations of Blind-Spot Collision-Avoidance Assist

Blind-Spot Collision-Avoidance Assist may not operate normally, or it may operate unexpectedly under the following circumstances:

- There is inclement weather, such as heavy snow, heavy rain, etc.
- The rear corner radar is covered with snow, rain, dirt, etc.
- The temperature around the rear corner radar is high or low
- Driving on a highway (or motorway) ramp
- The road pavement (or the peripheral ground) abnormally contains metallic components (for example, possibly due to subway construction)
- There is a fixed object near the vehicle, such as sound barriers, guardrails, central dividers, entry barriers, street lamps, signs, tunnels, walls, etc. (including double structures)
- Driving in large areas where there are few vehicles or structures (i.e. desert, meadow, suburb, etc.)
- Driving through a narrow road where trees or grass are overgrown
- Driving on a wet road surface, such as a puddle on the road
- The other vehicle drives very close behind your vehicle, or the other vehicle passes by your vehicle in close proximity
- The speed of the other vehicle is very fast that it passes by your vehicle in a short time
- Your vehicle passes by the other vehicle
- Your vehicle changes lane
- Your vehicle has started at the same time as the vehicle next to you and has accelerated
- The vehicle in the next lane moves two lanes away from you, or when the vehicle two lanes away moves to the next lane from you
- A trailer or carrier is installed around the rear corner radar
- The bumper around the rear corner radar is covered with objects, such as a bumper sticker, bumper guard, bike rack, etc.
- The bumper around the rear corner radar is impacted, damaged or the radar is out of position
- Your vehicle height is low or high due to heavy loads, abnormal tire pressure, etc.

Blind-Spot Collision-Avoidance Assist may not operate normally, or it may operate unexpectedly when the following objects are detected:

- A motorcycle or bicycle is detected
- A vehicle such as a flat trailer is detected
- A big vehicle such as a bus or truck is detected
- A moving obstacle such as a pedestrian, animal, shopping cart or a baby stroller is detected
- A vehicle with low height such as a sports car is detected

Braking control may not work, driver's attention is required in the following circumstances:

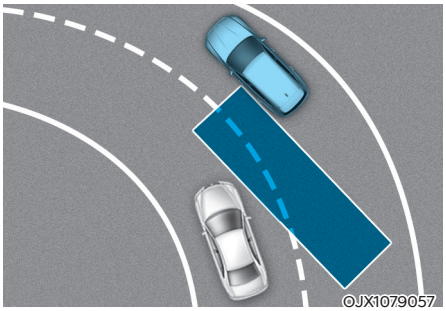
- The vehicle severely vibrates while driving over a bumpy road, uneven road or concrete patch
- Driving on a slippery surface due to snow, water puddle, ice, etc.
- The tire pressure is low or a tire is damaged
- The brake is modified
- The vehicle makes abrupt lane changes

Information

For more details on the limitations of the front view camera, refer to "Forward Collision-Avoidance Assist (FCA)" and "Lane Keeping Assist (LKA)" section in this chapter.

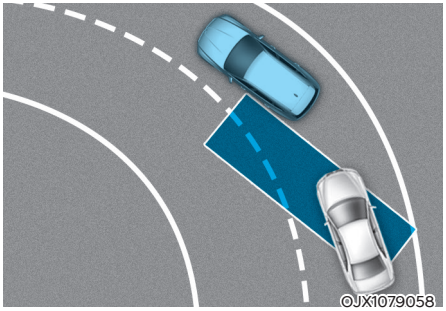
WARNING

- **Driving on a curved road**



Blind-Spot Collision-Avoidance Assist may not operate properly when driving on a curved road. The function may not detect the vehicle in the next lane.

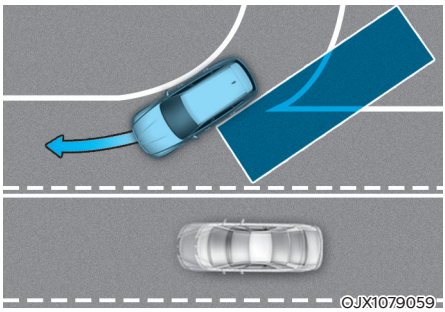
Always pay attention to road and driving conditions while driving.



Blind-Spot Collision-Avoidance Assist may not operate properly when driving on a curved road. The function may recognize a vehicle in the same lane.

Always pay attention to road and driving conditions while driving.

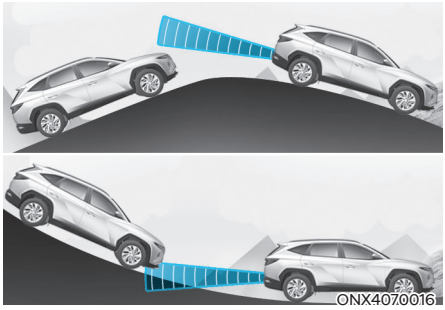
- **Driving where the road is merging/ dividing**



Blind-Spot Collision-Avoidance Assist may not operate properly when driving where the road merges or divides. The function may not detect the vehicle in the next lane.

Always pay attention to road and driving conditions while driving.

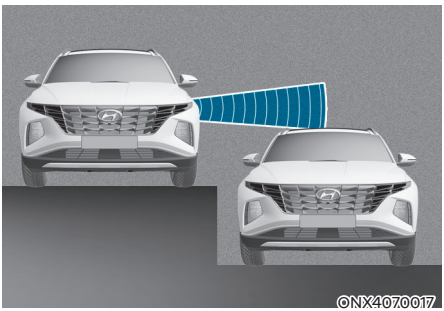
- **Driving on an inclined road**



Blind-Spot Collision-Avoidance Assist may not operate properly when driving on an inclined road. The function may not detect the vehicle in the next lane or may incorrectly detect the ground or structure.

Always pay attention to road and driving conditions while driving.

- **Driving where the heights of the lanes are different**



Blind-Spot Collision-Avoidance Assist may not operate properly when driving where the heights of the lanes are different. The function may not detect the vehicle on a road with different lane heights (underpass joining section, grade separated intersections, etc.).

Always pay attention to road and driving conditions while driving.

WARNING

- **When you are towing a trailer or another vehicle, make sure that you turn off Blind-Spot Collision-Avoidance Assist.**
- **Blind-Spot Collision-Avoidance Assist may not operate normally if interfered by strong electromagnetic waves.**
- **Blind-Spot Collision-Avoidance Assist may not operate for 3 seconds after the vehicle is started, or the front view camera or rear corner radars are initialized.**

Information

This device complies with Part 15 of the FCC rules.

Operation is subject to the following three conditions:

1. **This device may not cause harmful interference, and**
2. **This device must accept any interference received, including interference that may cause undesired operation.**
3. **Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.**

Information

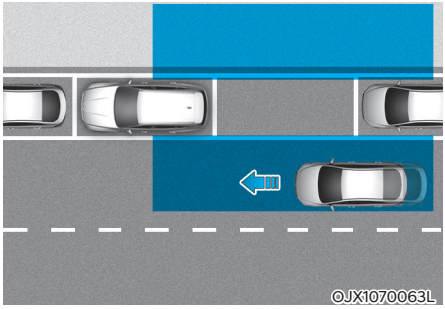
Radio frequency radiation exposure information:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance of 8 in. (20 cm) between the radiator (antenna) and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

SAFE EXIT WARNING (SEW) (IF EQUIPPED)



While your vehicle is stopped, and if Safe Exit Warning detects a vehicle approaching the rear corner of your vehicle and a passenger opens a door, Safe Exit Warning may warn you with a warning message and a warning sound to help avoid a collision.

CAUTION

Warning timing may vary depending on the speed of the approaching vehicle.

Detecting sensor



Refer to the picture above for the detailed location of the detecting sensors.

CAUTION

For more details on the precautions of the rear corner radars, refer to "Blind-Spot Collision-Avoidance Assist (BCA)" section in this chapter.

Safe Exit Warning Settings

Setting features



Safe Exit Warning

With the engine on, select 'Driver Assistance → Blind-Spot Safety → Safe Exit Warning' from the Settings menu to turn on Safe Exit Warning and deselect to turn off the function.

WARNING

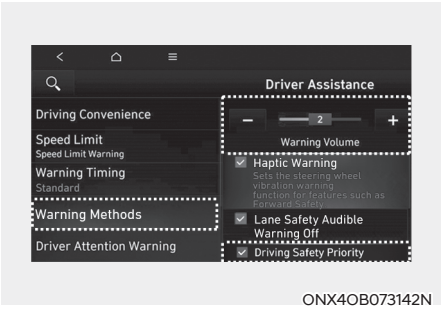
The driver should always be aware of unexpected and sudden situations from occurring. If 'Safe Exit Warning' is deselected, Safe Exit Warning cannot assist you.

Information

If the engine is restarted, Safe Exit Warning will maintain the last setting.



ONX4OB073097N



ONX4OB073142N

Warning Methods

The Warning Methods can be set with the vehicle on. Select 'User Settings → Driver Assistance → Warning Methods' from the settings menu in the instrument cluster or 'Setup → Vehicle → Driver Assistance → Warning Methods' from the settings menu in the infotainment system to change the following settings.

- **Warning Volume**: Adjusts the volume of the warning sound.

  Even if you set the warning volume to 'Off' or '0', the warning sound will sound at the volume set to 'Low' or '1'. (if equipped)
- **Driving Safety Priority**: Lowers all other audio volumes when the Driving Safety system sounds a warning. (for infotainment system type)

Information

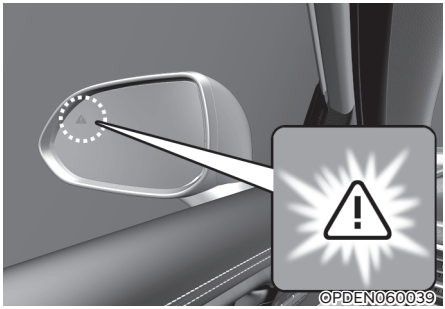
- **If you change the Warning Methods, the Warning Methods of other Driver Assistance systems may change.**
- **If the vehicle is restarted, Warning Methods will maintain the last setting.**
- **The setting menu may not exist based on vehicle specification.**

CAUTION

The setting of the Warning Volume applies to all functions of the Safe Exit Warning.

Safe Exit Warning Operation

Safe Exit Warning





Collision warning when exiting vehicle

- When an approaching vehicle from the rear is detected at the moment a door is opened, the 'Watch for traffic' warning message will appear on the cluster, and an audible warning will sound.
- Safe Exit Warning will warn the driver when your vehicle speed is below 2 mph (3 km/h), and the speed of the approaching vehicle from the rear is above 4 mph (6 km/h).

WARNING

Take the following precautions when using Safe Exit Warning:

- **For your safety, only change the Settings after parking the vehicle at a safe location.**
- **If any other function's warning message is displayed or audible warning is generated, Safe Exit Warning's warning message may not be displayed and audible warning may not be generated.**
- **You may not hear the warning sound of Safe Exit Warning if the surroundings are noisy.**
- **Safe Exit Warning does not operate in all situations and cannot prevent all collisions.**
- **Safe Exit Warning may warn the driver late or may not warn the driver depending on the road and driving conditions. Always check vehicle surroundings.**
- **The driver and passengers are responsible for accidents that occur while exiting the vehicle. Always check the surroundings before you exit the vehicle.**
- **Never deliberately operate Safe Exit Warning. Doing so may lead to serious injury or death.**

- **Safe Exit Warning does not operate if there is a problem with Blind-Spot Collision-Avoidance Assist. The warning message of Blind-Spot Collision-Avoidance Assist will appear when:**
  - **Blind-Spot Collision-Avoidance Assist sensor or the sensor surrounding is polluted or covered**
  - **Blind-Spot Collision-Avoidance Assist fails to warn passengers or falsely warn passengers**

Information

After the engine is turned off, Safe Exit Warning operates approximately for 3 minutes, but turns off immediately if the doors are locked.

Safe Exit Warning Malfunction and Limitations

Safe Exit Warning malfunction



OCN7070039L

When Safe Exit Warning is not working properly, the 'Check Blind-Spot Safety system' warning message will appear on the cluster for several seconds, and the master (⚠) warning light will illuminate on the cluster. If the master warning light illuminates, have the vehicle inspected by an authorized HYUNDAI dealer.

Safe Exit Warning disabled



When the rear bumper around the rear corner radar or sensor is covered with foreign material, such as snow or rain, or installing a trailer or carrier, it can reduce the detecting performance and temporarily limit or disable Safe Exit Warning.

If this occurs, the 'Blind-Spot Safety system disabled. Radar blocked' warning message will appear on the cluster.

Safe Exit Warning will operate normally when such foreign material or trailer, etc. is removed, and then the engine is restarted.

Safe Exit Warning does not operate normally after it is removed, have the vehicle inspected by an authorized HYUNDAI dealer.

WARNING

- **Even though the warning message does not appear on the cluster, Safe Exit Warning may not properly operate.**
- **Safe Exit Warning may not properly operate in an area (for example, open terrain) where any substance are not detected right after the engine is turned on, or when the detecting sensor is blocked with foreign material right after the engine is turned on.**

CAUTION

Turn off Safe Exit Warning to install a trailer, carrier, or another attachment. Turn on Safe Exit Warning when finished.

Limitations of Safe Exit Warning

Safe Exit Warning may not operate normally, or it may operate unexpectedly under the following circumstances:

- Getting off the vehicle where trees or grass are overgrown
- Getting off the vehicle where the road is wet
- The approaching vehicle is very fast or very slow

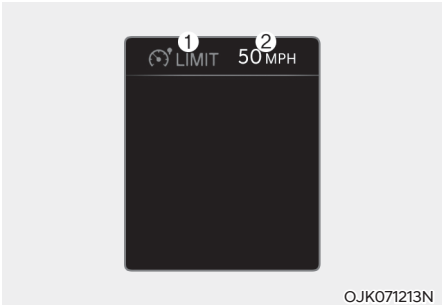
Information

For more details on the limitations of the rear corner radar, refer to "Blind- Spot Collision-Avoidance Assist (BCA)" section in this chapter.

WARNING

- **Safe Exit Warning may not operate normally if interfered by strong electromagnetic waves.**
- **Safe Exit Warning may not operate for 3 seconds after the vehicle is started, or rear corner radars are initialized.**

MANUAL SPEED LIMIT ASSIST (MSLA)



OJK071213N

(1) Speed Limit indicator

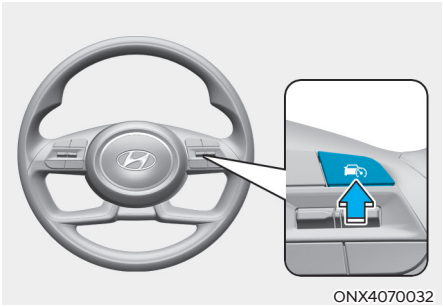
(2) Set speed

You can set the speed limit when you do not want to drive over a specific speed.

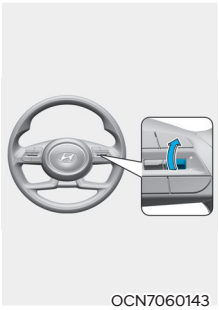
If you drive over the preset speed limit, Manual Speed Limit Assist will operate (set speed limit will blink and chime will sound) until the vehicle speed returns within the speed limit.

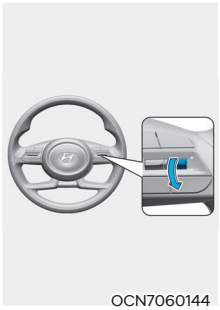
Manual Speed Limit Assist Operation

Setting features


ONX4070032

1. Press and hold Driving Assist (🚗) button at the desired speed. The Speed Limit (LIMIT) indicator will illuminate on the cluster.


OCN7060143


OCN7060144

2. Push the + switch up or - switch down, and release it at the desired speed.

   Push the + switch up or - switch down and hold it. The speed will increase or decrease to the nearest multiple of five (multiple of ten in km/h) at first, and then increase or decrease by 5 mph (10 km/h).



OJK071214N

3. The set speed limit will be displayed on the cluster.

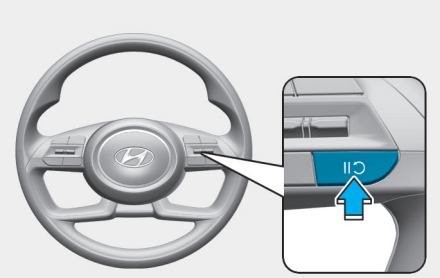
   If you would like to drive over the preset speed limit, depress the accelerator pedal beyond the pressure point to activate the kickdown function.

   The set speed limit will blink and chime will sound until you return the vehicle speed within the speed limit.

Information

- **When the accelerator pedal is not depressed beyond the pressure point, vehicle speed will maintain within the speed limit.**
- **A clicking sound may be heard from the kickdown function when the accelerator pedal is depressed beyond the pressure point.**

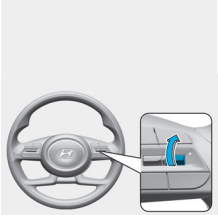
Temporarily pausing Manual Speed Limit Assist



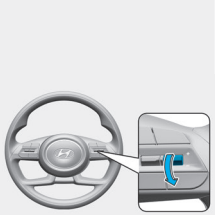
OCN7060063

Press the II↺ switch to temporarily pause the set speed limit. The set speed limit will turn off but the Speed Limit (LIMIT) indicator will stay on.

Resuming Manual Speed Limit Assist



OCN7060143



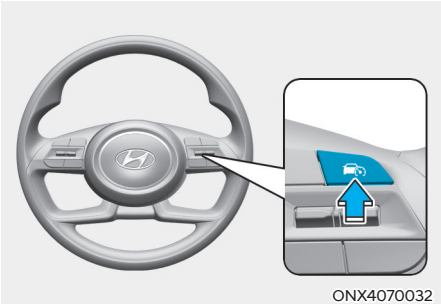
OCN7060144

To resume Manual Speed Limit Assist after the function was paused, operate the +, -, II↺ switch.

If you push the + switch up or – switch down, vehicle speed will be set to the current speed on the cluster.

If you operate the II↺ switch, vehicle speed will resume to the preset speed.

Turning off Manual Speed Limit Assist



ONX4070032

Press the Driving Assist ( ) button to turn Manual Speed Limit Assist off. The Speed Limit (LIMIT) indicator will go off.

Always press the Driving Assist ( ) button to turn Manual Speed Limit Assist off when not in use.

WARNING

Take the following precautions when using Manual Speed Limit Assist:

- **Always set the vehicle speed to the speed limit in your area.**
- **Keep Manual Speed Limit Assist off when the function is not in use, to avoid inadvertently setting a speed. Check that the Speed Limit (LIMIT) indicator is off.**
- **Manual Speed Limit Assist does not substitute for proper and safe driving. It is the responsibility of the driver to always drive safely and be aware of unexpected and sudden situations. Pay attention to the road conditions at all times.**

INTELLIGENT SPEED LIMIT ASSIST (ISLA) (IF EQUIPPED)

Intelligent Speed Limit Assist uses information from the detected road signs and uses the navigation system data to inform you of the speed limit and to help maintain within the speed limit on the road.

CAUTION

- **Intelligent Speed Limit Assist may not operate properly if the function is used in other countries.**
- **If a navigation is applied to your vehicle, the navigation needs to be regularly updated for Intelligent Speed Limit Assist to operate properly.**
- **The infotainment system may change after software updates. For more information, refer to the user's manual provided in the infotainment system and the quick reference guide.**

Detecting sensor



[1] : Front view camera

Refer to the picture above for the detailed location of the detecting sensor.

CAUTION

For more details on the precautions of the front view camera, refer to "Forward Collision-Avoidance Assist (FCA)" section in this chapter.

Information

If the navigation system is available, the information from the navigation system is used along with the road sign information detected by the front view camera.

Intelligent Speed Limit Assist Settings

Setting features



Speed Limit

With the engine on, select or deselect 'Driver Assistance → Speed Limit' from the Settings menu to set whether or not to use each function.

- If 'Speed Limit Assist' is selected, Intelligent Speed Limit Assist will inform the driver of speed limit. In addition, Intelligent Speed Limit Assist will inform the driver to change set speed of Manual Speed Limit Assist or Smart Cruise Control to help the driver stay within the speed limit.
- If 'Speed Limit Warning' is selected, Intelligent Speed Limit Assist will inform the driver of speed limit. In addition, Intelligent Speed Limit Assist will warn the driver when the vehicle is driven faster than the speed limit.
- If 'Off' is selected, Intelligent Speed Limit Assist will turn off.

CAUTION

If 'Speed Limit Warning' is selected, Intelligent Speed Limit Assist will not inform the driver to adjust set speed.



ONX4N071004N

Speed Limit Offset

With the engine on, when 'Driver Assistance → Speed Limit → Speed Limit Offset' is selected, the Speed Limit Offset can be adjusted. Speed Limit Warning and Speed Limit Assist will warn the driver and adjust the driving speed when vehicle speed exceeds the speed at which the set Offset is added to speed limit.

WARNING

- **For your safety, only change the Settings after parking the vehicle at a safe location.**
- **Speed Limit Assist function operates based on the Speed Limit Offset setting added to the speed limit. If you want to change the set speed according to the speed limit, adjust the offset to '0'.**
- **Speed Limit Warning function warns the driver when driving speed exceeds the speed at which the set Speed Limit Offset is added to speed limit. If you want Speed Limit Warning to warn you immediately when the driving speed exceeds the speed limit, adjust the offset to '0'.**

Information

The setting of 'Speed Limit Offset' is not reflected in Navigation-based Smart Cruise Control (NSCC).

Intelligent Speed Limit Assist Operation

Warning and control

Intelligent Speed Limit Assist will warn and control the vehicle by 'Displaying speed limit', 'Warning overspeed' and 'Changing set speed'.

Information

Intelligent Speed Limit Assist warning and control are described based on the Speed limit tolerance set to '0'. For details on Offset setting, refer to the "Intelligent Speed Limit Assist Settings".



ONX4OB071037



ONX4OB071036

Displaying speed limit

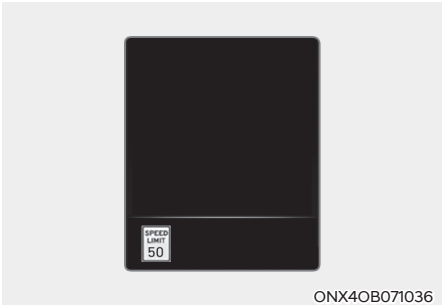
Speed limit information is displayed on the instrument cluster.

Information

- **If speed limit information of the road cannot be recognized, '---' sign will be displayed. Please refer to "Limitations of Intelligent Speed Limit Assist " if the road signs are difficult to recognize.**
- **Supplementary sign displayed under the speed limit or overtaking restriction sign means the conditions under which the signs must be followed. If supplementary sign is not recognized, it will be displayed as blank.**

Information

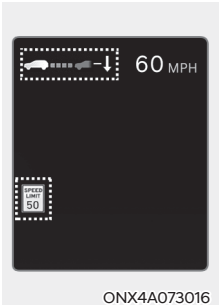
The images and colors in the instrument cluster may differ depending on the cluster type or theme selected from the instrument cluster.



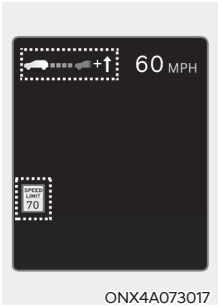
ONX4OB071036

Warning overspeed

When driving at a speed higher than the displayed speed limit, the speed limit is displayed in red.



ONX4A073016



ONX4A073017

Changing set speed

If the speed limit of the road changes during the operation of Manual Speed Limit Assist or Smart Cruise Control, an arrow in the direction of up or down is displayed to inform the driver that the set speed needs to be changed. At this time, the driver can change the set speed according to the speed limit by using the + or – switch on the steering wheel.

WARNING

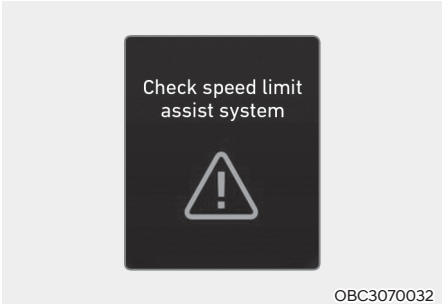
- **If you want to drive below the speed limit, adjust the Offset under '0' or use the – switch on the steering wheel to lower the set speed.**
- **Even after changing the set speed according to the speed limit of the road, the vehicle can still be driven over the speed limit. If necessary, depress the brake pedal to reduce your driving speed.**
- **If the speed limit of the road is under 20 mph (30 km/h), the set speed change function will not work.**
- **Intelligent Speed Limit Assist operates using the speed unit in the instrument cluster set by the driver. If the speed unit is set to a unit other than the speed unit used in your country, Intelligent Speed Limit Assist may not operate properly.**

Information

- **For more details on Manual Speed Limit Assist operation, refer to "Manual Speed Limit Assist (MSLA)" section in this chapter.**
- **For more details on Smart Cruise Control operation, refer to "Smart Cruise Control (SCC)" section in this chapter.**

Intelligent Speed Limit Assist Malfunction and Limitations

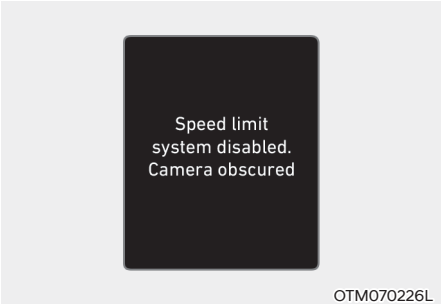
Intelligent Speed Limit Assist malfunction



OBC3070032

When Intelligent Speed Limit Assist is not working properly, the 'Check Speed Limit Assist System' warning message will appear on the cluster for several seconds, and the master (⚠) warning light will illuminate on the cluster. If this occurs, have the vehicle inspected by an authorized HYUNDAI dealer.

Intelligent Speed Limit Assist disabled



OTM070226L

When the front windshield where the front view camera is located is covered with foreign material, such as snow or rain, it can reduce the detecting performance and temporarily limit or disable Intelligent Speed Limit Assist. If this occurs, the 'Speed Limit Assist system disabled. Camera obscured' warning message will appear on the cluster.

Intelligent Speed Limit Assist will operate normally when snow, rain or foreign material is removed.

If Intelligent Speed Limit Assist does not operate properly after it is removed, have the vehicle inspected by an authorized HYUNDAI dealer.

WARNING

- **Even though the warning message or warning light does not appear on the cluster, Intelligent Speed Limit Assist may not operate properly due to limitations of the function.**
- **If the detecting sensor is contaminated immediately after starting the engine, Intelligent Speed Limit Assist may not operate properly.**
- **Intelligent Speed Limit Assist may not operate for 15 seconds after the vehicle is started, or the front camera is initialized.**

Limitations of Intelligent Speed Limit Assist

Intelligent Speed Limit Assist may not operate or it may not provide correct information under the following circumstances:

- The road sign is contaminated or indistinguishable
  - The road sign is difficult to see due to bad weather, such as rain, snow, fog, etc.
  - The road sign is not clear or damaged
  - The road sign is partially obscured by surrounding objects or shadow
- The road signs do not conform to the standard
  - The text or picture on the road sign is different from the standard
  - The road sign is installed between the main line and the exit road or between diverging roads
  - There is no conditional road signs on the road sign located on the exit road
  - A sign is attached to another vehicle
- The distance between the vehicle and the road signs is too far
- The vehicle encounters illuminant road signs
- Intelligent Speed Limit Assist incorrectly recognizes numbers or pictures in the street signs or other signs as the speed limit
- A road sign near the road you are driving is detected
- Multiple signs are installed close together
- The minimum speed limit sign is misrecognized
- The minimum speed limit sign is on the road
- The brightness changes suddenly, for example when entering or exiting a tunnel or passing under a bridge
- Headlights are not used or the brightness of the headlights are weak at night or in the tunnel
- Road signs are difficult to recognize due to the reflection of sunlight, street lights, or oncoming vehicles
- The navigation information or GPS information contain errors.
- The driver does not follow the guide of the navigation.
- The driver is driving on a new road that is not in the navigation system yet.
- The field of view of the front view camera is obstructed by sun glare
- Driving on a road that is sharply curved or continuously curved
- Driving through speed bumps, or driving up and down or left to right on steep inclines
- The vehicle is shaking heavily
- Driving on a newly opened road

Information

For more details on the limitations of the front view camera, refer to "Forward Collision-Avoidance Assist (FCA)" section in this chapter.

WARNING

- **Intelligent Speed Limit Assist is a supplemental function that helps the driver to comply with the speed limit on the road, and may not display the correct speed limit or control the driving speed properly.**
- **Always set the vehicle speed to the speed limit in your area.**
- **Intelligent Speed Limit Assist may not operate for 15 seconds after the vehicle is started, or the front camera is initialized.**

DRIVER ATTENTION WARNING (DAW)

Basic function

Driver Attention Warning monitors your driving pattern while driving. When the driver's attention level is below a certain level, Driver Attention Warning recommends a break to help with safe driving.

Leading Vehicle Departure Alert function

Leading Vehicle Departure Alert function will inform the driver when a detected vehicle in front departs from a stop.

Detecting sensor



[1] : Front view camera

The front view camera is used to detect driving patterns and front vehicle departure while vehicle is being driven.

Refer to the picture above for the detailed location of the detecting sensor.

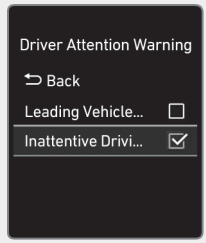
CAUTION

Always keep the front view camera in good condition to maintain optimal performance of Driver Attention Warning.

For more details on the precautions of the front view camera, refer to "Forward Collision-Avoidance Assist (FCA)" section in this chapter.

Driver Attention Warning Settings

Setting features

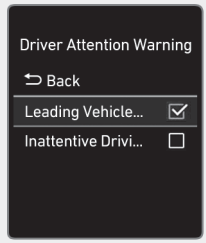


OTM070188N

Driver Attention Warning

With the engine on, select or deselect 'Driver Assistance → DAW (Driver Attention Warning)' from the Settings menu to set whether or not to use each function.

- If 'Inattentive Driving Warning' is selected, Driver Attention Warning will inform the driver the driver's attention level and will recommend taking a break when the level falls below a certain level.



OTM070189N

Leading Vehicle Departure Alert

- If 'Leading Vehicle Departure Alert' is selected, Driver Attention Warning will inform the driver when a detected vehicle in front departs from a stop.



OTM070140N

Warning Timing

With the ignition switch ON, go to 'User Settings → Driver Assistance → Warning Timing (for cluster type)' or 'Setup → Vehicle → Driver Assistance → Warning Timing (for infotainment system type)' from the Settings menu to change the initial warning activation time. Warning Timing is set to Normal at the factory.

WARNING

- **Even though 'Normal' is selected for Warning Timing if the vehicle ahead of you suddenly stops, the initial warning activation time may seem late.**
- **Select 'Late' for Warning Timing when traffic is light and your vehicle speed is slow.**

Information

When the engine is restarted, the Warning Timing maintains its last setting.

Driver Attention Warning Operation

Basic function

Display and warning

The basic function of Driver Attention Warning is to inform the driver of their 'Attention Level' and to warn the driver to 'Consider taking a break'.

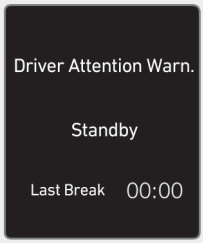
Attention level

■ Function off



OTM070102L

■ Standby



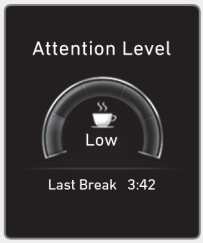
OTM070106N

■ Attentive driving



ONX4E071170L

■ Inattentive driving



ONX4E071174L

- The driver can monitor the driving conditions on the cluster.
  - When the 'Inattentive Driving Warning' is deselected from the Settings menu, 'System Off' is displayed.
  - Driver Attention Warning will operate when vehicle speed is between 0~120 mph (0~200 km/h).
  - When vehicle speed is not within the operating speed, the message 'Standby' will be displayed.

- The driver's attention level is displayed on the scale of 1 to 5. The lower the level is, the more inattentive the driver is.
- The level decreases when the driver does not take a break for a certain period of time.

Taking a break



OTM070105L

- The 'Consider taking a break' message will appear on the cluster and an audible warning will sound to suggest that the driver take a break, when the driver's attention level is below 1.
- Driver Attention Warning will not suggest a break when the total driving time is shorter than 10 minutes or 10 minutes has not passed after the last break was suggested.

WARNING

For your safety, only change the Settings after parking the vehicle at a safe location.

CAUTION

- **Driver Attention Warning may suggest a break depending on the driver's driving pattern or habits, even if the driver doesn't feel fatigued.**
- **Driver Attention Warning is a supplemental function and may not be able to determine whether the driver is inattentive.**
- **A driver who feels fatigued should take a break at a safe location, even though there is no break suggestion by Driver Attention Warning.**

Information

- **You may change settings from the instrument cluster (User Settings) or infotainment system (Vehicle Settings), whichever option that is provided with your vehicle. For more details, see "User Settings" section in chapter 4, or "Vehicle Settings" section in supplied Infotainment Manual.**
- **Driver Attention Warning resets in the following situations:**
  - **The engine is turned off**
  - **The driver unfastens the seat belt and opens the driver's door**
  - **The vehicle is stopped for more than 10 minutes**

Leading Vehicle Departure Alert function



ONX4E070099

When a detected vehicle in front departs from a stop, Leading Vehicle Departure Alert will inform the driver by displaying the 'Leading vehicle is driving away' message on the cluster and an audible warning will sound.

WARNING

- **If any other system's warning message is displayed or audible warning is generated, Leading Vehicle Departure Alert's warning message may not be displayed and audible warning may not be generated.**
- **The driver has the responsibility to safely drive and control the vehicle.**

CAUTION

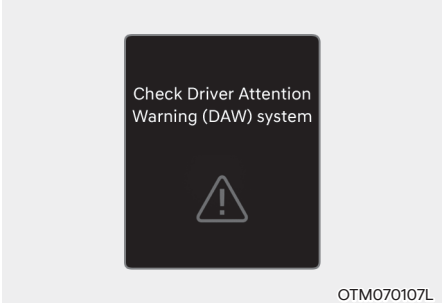
- **Leading Vehicle Departure Alert is a supplemental function and may not alert the driver whenever the front vehicle departs from a stop.**
- **Always check the front of the vehicle and road conditions before departure.**

Information

The images and colors in the cluster may differ depending on the cluster type or theme selected from the cluster.

Driver Attention Warning Malfunction and Limitations

Driver Attention Warning malfunction



OTM070107L

When Driver Attention Warning is not working properly, the 'Check Driver Attention Warning (DAW) system' warning message will appear on the cluster for several seconds, and the master (⚠) warning light will illuminate on the cluster. If this occurs, have the vehicle inspected by an authorized HYUNDAI dealer.

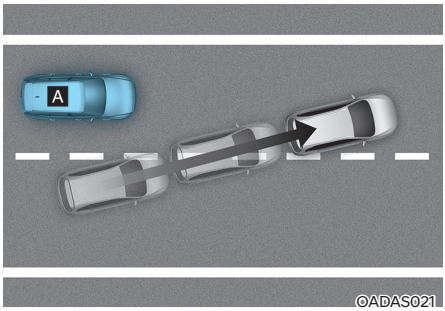
Limitations of Driver Attention Warning

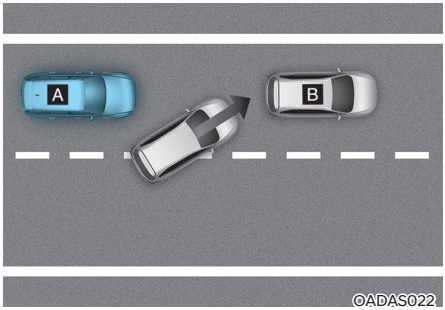
Driver Attention Warning may not work properly in the following situations:

- The vehicle is driven violently
- The vehicle intentionally crosses over lanes frequently
- The vehicle is controlled by Driver Assistance system, such as Lane Keeping Assist

Leading Vehicle Departure Alert feature

- When the vehicle cuts in

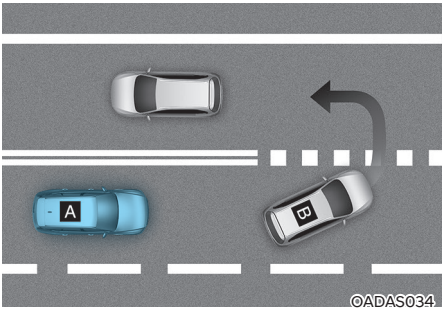




[A] : Your vehicle, [B] : Front vehicle

If a vehicle cuts in front of your vehicle, Leading Departure Alert may not operate properly.

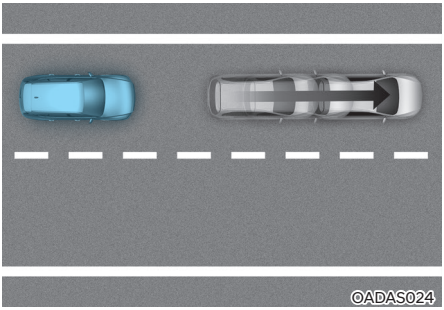
- When the vehicle ahead sharply steers



[A] : Your vehicle, [B] : Front vehicle

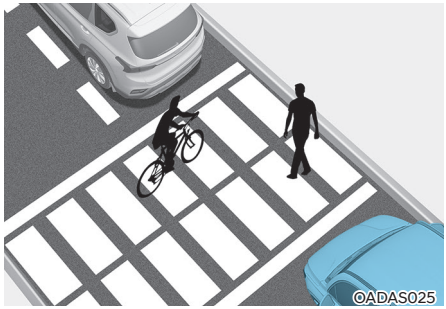
If the vehicle in front makes a sharp turn, such as to turn left or right or make a U-turn, etc., Leading Vehicle Departure Alert may not operate properly.

- When the vehicle ahead abruptly departures



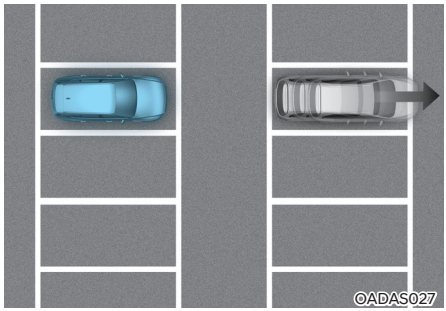
If the vehicle in front abruptly departures, Leading Vehicle Departure Alert may not operate properly.

- When a pedestrian or bicycle is between you and the vehicle ahead



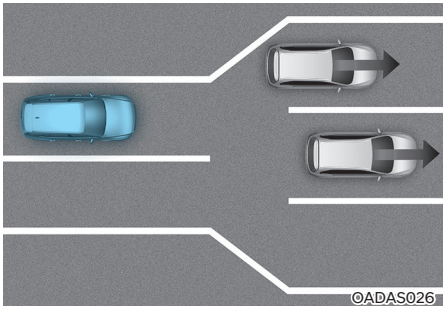
If there is a pedestrian(s) or bicycle(s) in between you and the vehicle in front, Leading Vehicle Departure Alert may not operate properly.

- When in a parking lot



If a vehicle parked in front drives away from you, Leading Vehicle Departure Alert may alert you that the parked vehicle is driving away.

- When driving at a tollgate or intersection, etc.



If you pass a tollgate or intersection with lots of vehicles or you drive where lanes are merged or divided frequently, Leading Vehicle Departure Alert may not operate properly.

Information

For more details on the precautions of the front view camera, refer to "Forward Collision-Avoidance Assist (FCA)" section in this chapter.

BLIND-SPOT VIEW MONITOR (BVM) (IF EQUIPPED)

■ Left side



ONX4PH072017N

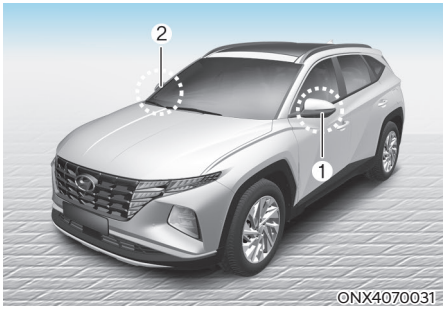
■ Right side



ONX4PH072018N

Blind-Spot View Monitor uses the wide-side view cameras to display the rear blind spot areas of your vehicle on the instrument cluster when the turn signal is turned on to help with safe lane changes.

Detecting sensor



ONX4070031

[1], [2] : Wide-side view camera
(camera located at bottom of the mirror)

Refer to the picture above for the detailed location of the detecting sensors.

Blind-Spot View Monitor Settings

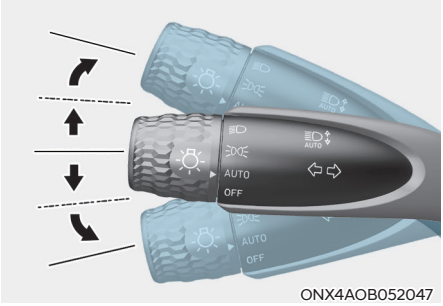
Setting features

Blind-Spot View

With the engine on, select 'Driver Assistance → Blind-Spot Safety → Blind-Spot View' from the Settings menu to turn on Blind-Spot View Monitor and deselect to turn off Blind-Spot View Monitor.

Blind-Spot View Monitor Operation

Operating switch



ONX4AOB052047

Turn signal switch

Blind-Spot View Monitor will turn on and off when the turn signal is turned on and off.

Blind-Spot View Monitor

Operating conditions

When the left or right side turn signal turns on, the image in that direction is displayed on the instrument cluster.

Off conditions

- When the turn signal turns off, the image on the instrument cluster will turn off.
- When the hazard warning flasher is on, Blind-Spot View Monitor will turn off, regardless of the turn signal status.
- When other important warning is displayed on the instrument cluster, Blind-Spot View Monitor may turn off.

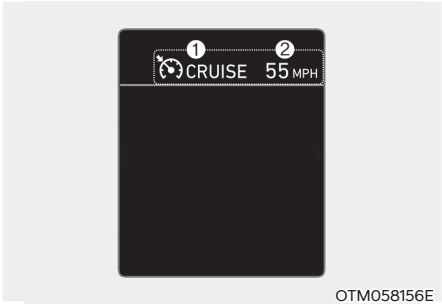
Blind-Spot View Monitor Malfunction

When Blind-Spot View Monitor is not working properly, or the cluster display flickers, or the camera image does not display normally, have the vehicle inspected by an authorized HYUNDAI dealer.

WARNING

- **The image shown on the cluster may differ from the actual distance of the object. Make sure to directly check the vehicle's surroundings for safety.**
- **Always keep the camera lens clean. If the lens is covered with foreign material, it may adversely affect camera performance and Blind-Spot View Monitor may not operate properly.**

CRUISE CONTROL (CC) (IF EQUIPPED)



OTM058156E

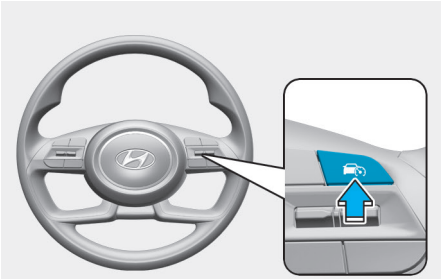
(1) Cruise indicator
(2) Set speed

Cruise Control will allow you to drive at speeds above 20 mph (30 km/h) without depressing the accelerator pedal.

Cruise Control Operation

Setting feature

1. Accelerate to the desired speed, which must be more than 20 mph (30 km/h).



ONX4070032

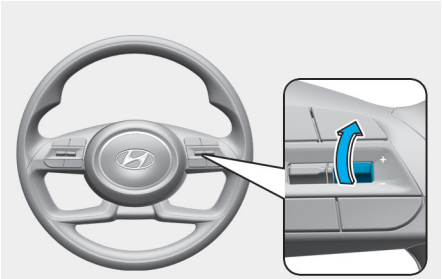
2. Press the Driving Assist ( )button at the desired speed. The set speed and Cruise (CRUISE) indicator will illuminate on the cluster.
3. Release the accelerator pedal.

   Vehicle speed will maintain the set speed even when the accelerator pedal is not depressed.

Information

On a steep slope, the vehicle may slightly slow down or speed up while driving uphill or downhill.

Increasing set speed

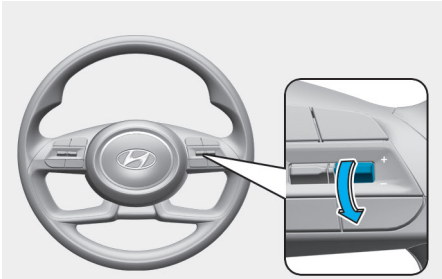


OCN7060143

- Push the + switch up and release it immediately. The set speed will increase by 1 mph (1 km/h) each time the switch is operated in this manner.
- Push the + switch up and hold it while monitoring the set speed on the cluster. The set speed will increase to the nearest multiple of ten (multiple of five in mph) at first, and then increase by 5 mph (10 km/h) each time the switch is operated in this manner.

  Release the switch when the desired set speed is shown and the vehicle will accelerate to that speed.

Decreasing set speed



OCN7060144

- Push the - switch down and release it immediately. The set speed will decrease by 1 mph (1 km/h) each time the switch is operated in this manner.
- Push the - switch down and hold it while monitoring the set speed on the cluster. The set speed will decrease to the nearest multiple of ten (multiple of five in mph) at first, and then decrease by 5 mph (10 km/h) each time the switch is operated in this manner.

  Release the switch at the set speed you want to maintain.

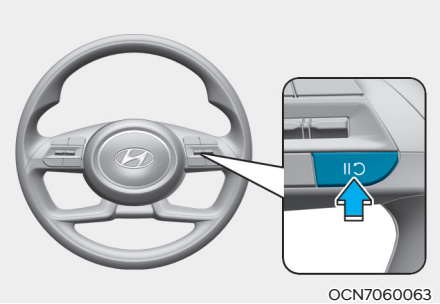
To temporarily accelerate

If you want to speed up temporarily when Cruise Control is on, depress the accelerator pedal.

To return to the set speed, take your foot off the accelerator pedal.

If you push the + switch up or - switch down at increased speed, the set speed will be set to the current increased speed.

Temporarily pausing Cruise Control



OCN7060063

Cruise Control will be paused when:

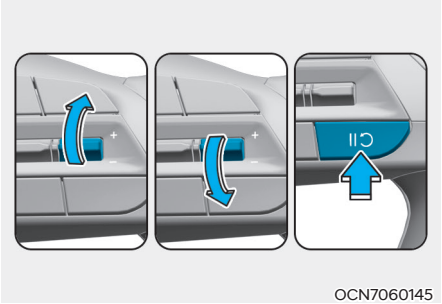
- Depressing the brake pedal.
- Pressing the II↺ button.
- Shifting the gear to N (Neutral).
- Decreasing vehicle speed to less than approximately 20 mph (30 km/h).
- ESC (Electronic Stability Control) is operating.
- Downshifting to 2nd gear when in Manual Shift mode.

The set speed will turn off but the Cruise (CRUISE) indicator will stay on.

NOTICE

If Cruise Control pauses during a situation that is not mentioned, have the vehicle inspected by an authorized HYUNDAI dealer.

Resuming Cruise Control



OCN7060145

Press the +, - switch or II↺ button.

If you push the + switch up or - switch down, vehicle speed will be set to the current speed on the cluster.

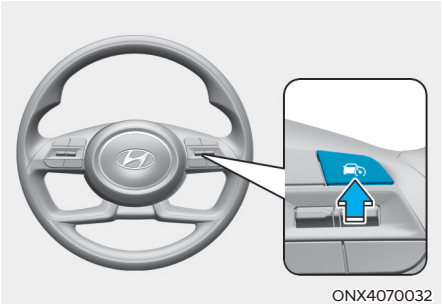
If you press the II↺ button, vehicle speed will resume to the preset speed.

Vehicle speed must be above 20 mph (30 km/h) for the function to resume.

WARNING

Check the driving condition before using the II↺ button. Driving speed may sharply increase or decrease when you press the II↺ button.

Turning off Cruise Control



ONX4070032

Press the Driving Assist ( ) button to turn Cruise Control off. The Cruise (CRUISE) indicator will go off.

Always press the Driving Assist button to turn Cruise Control off when not in use.

Information

If your vehicle is equipped with Manual Speed Limit Assist, press and hold the Driving Assist button to turn off Cruise Control. However, Manual Speed Limit Assist will turn on.

WARNING

Take the following precautions when using Cruise Control:

- **Always set the vehicle speed to the speed limit in your area.**
- **Keep Cruise Control off when the function is not in use, to avoid inadvertently setting a speed. Check that the Cruise (CRUISE) indicator is off.**
- **Cruise Control does not substitute for proper and safe driving. It is the responsibility of the driver to always drive safely and should always be aware of unexpected and sudden situations.**
- **Always drive cautiously to prevent unexpected and sudden situations from occurring. Pay attention to the road conditions at all times.**
- **Do not use Cruise Control when it may be unsafe to keep the vehicle at a constant speed:**
  - **When driving in heavy traffic, or when traffic conditions make it difficult to drive at a constant speed**
  - **When driving on rainy, icy, or snow-covered roads**
  - **When driving on hilly or windy roads**
  - **When driving in windy areas**
  - **When driving with limited view (possibly due to bad weather, such as fog, snow, rain and sandstorm)**
- **Do not use Cruise Control when towing a trailer.**

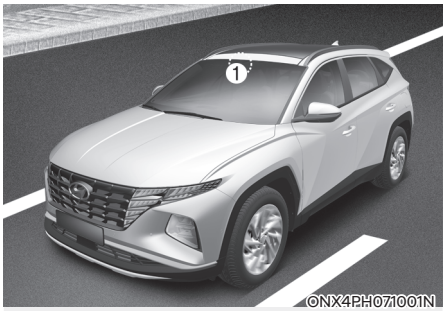
SMART CRUISE CONTROL (SCC) (IF EQUIPPED)

Smart Cruise Control detects a vehicle ahead and helps maintain the distance from the vehicle ahead and the set speed.

Overtake Assist Control

When Smart Cruise Control judges you are attempting to overtake a vehicle in front, Smart Cruise Control help with accelerating.

Detecting sensor





[1] : Front view camera,
[2] : Front radar

The front view camera and front radar are used as a detecting sensor to help detect the vehicles in front.

Refer to the picture above for the detailed location of the detecting sensor.

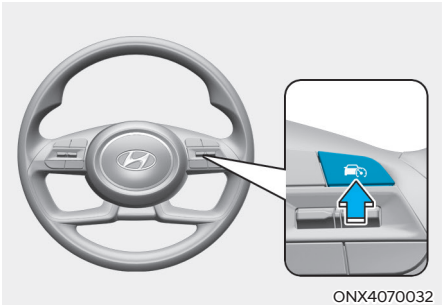
CAUTION

Always keep the front view camera and front radar in good condition to maintain optimal performance of Smart Cruise Control.

For more details on the precautions of the front view camera and front radar, refer to “Forward Collision-Avoidance Assist (FCA)” section in this chapter.

Smart Cruise Control Settings

Setting features



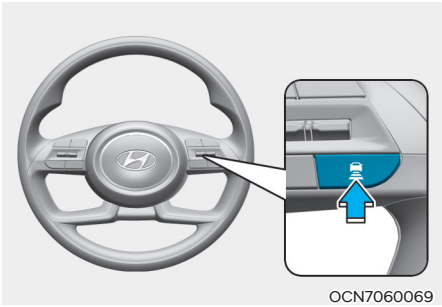
ONX4070032

Turning on Smart Cruise Control

- Press the Driving Assist ( ) button to turn on Smart Cruise Control. The speed will be set to the current speed on the cluster.
- If there is no vehicle in front of you, the set speed will be maintained, but if there is a vehicle in front of you, the speed may decrease to maintain the distance to the vehicle ahead. If the vehicle ahead accelerates, your vehicle will travel at a steady cruising speed after accelerating to the set speed.

Information

- **If your vehicle speed is between 0~20 mph (0~30 km/h) when you press the Driving Assist button, the Smart Cruise Control set speed will be set to 0~20 mph (0~30 km/h).**
- **The Driving Assist button symbol may vary depending on your vehicle option.**



OCN7060069

Setting vehicle distance

Each time the button is pressed, the vehicle distance changes as follows:

Distance 4 → Distance 3 → Distance 2

Distance 1 ←

Information

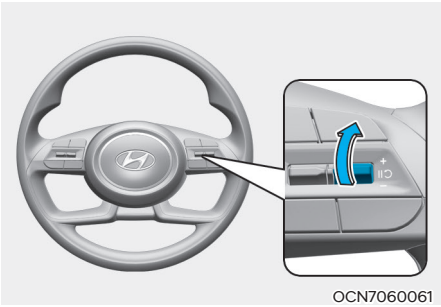
- **If you drive at 56 mph (90 km/h), the distance is maintained as follows:**

  Distance 4 - approximately 172 ft. (52.5 m)

  Distance 3 - approximately 130 ft. (40 m)

  Distance 2 - approximately 106 ft. (32.5 m)

  Distance 1 - approximately 82 ft. (25 m)
- **The distance is set to the last set distance when the engine is restarted, or when Smart Cruise Control was temporarily canceled.**

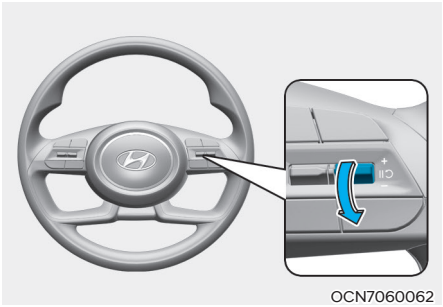

OCN7060061

Increasing set speed

- Push the + switch up and release it immediately. The set speed will increase by 1 mph (1 km/h) each time the switch is operated in this manner.
- Push the + switch up and hold it while monitoring the set speed on the cluster. The set speed will increase by 5 mph (10 km/h) each time the switch is operated in this manner. Release the switch when the desired speed is shown, and the vehicle will accelerate to that speed. You can increase the set speed to 110 mph (180 km/h).

WARNING

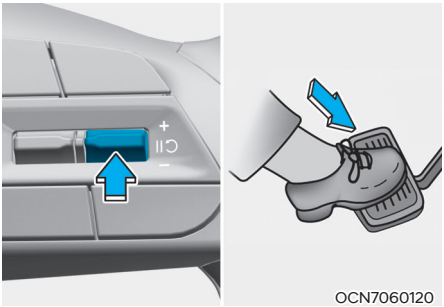
Check the driving condition before using the + switch. Driving speed may sharply increase when you push up and hold the + switch.


OCN7060062

Decreasing set speed

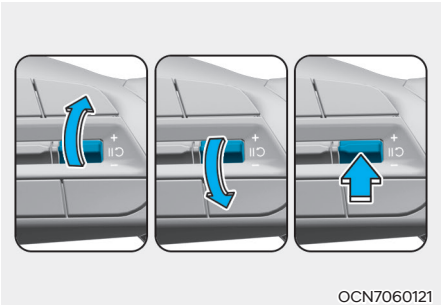
- Push the - switch down and release it immediately. The set speed will decrease by 1 mph (1 km/h) each time the switch is operated in this manner.
- Push the - switch down and hold it while monitoring the set speed on the cluster. The set speed will decrease by 5 mph (10 km/h) each time the switch is operated in this manner.

  Release the switch at the speed you want to maintain. You can decrease the set speed to 20 mph (30 km/h).


OCN7060120

Temporarily canceling Smart Cruise Control

Press the II↺ switch or depress the brake pedal to temporarily cancel Smart Cruise Control.



OCN7060121

To resume Smart Cruise Control

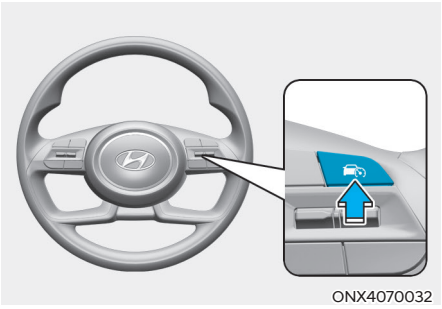
To resume Smart Cruise Control after the function was canceled, operate the +, - or RES switch.

If you push the + switch up or - switch down, vehicle speed will be set to the current speed on the cluster.

If you operate the RES switch, vehicle speed will resume to the preset speed.

WARNING

Check the driving condition before using the RES switch. Driving speed may sharply increase or decrease when you press the RES switch.



ONX4070032

To turn off Smart Cruise Control

Press the Driving Assist button to turn Smart Cruise Control off.

Information

If your vehicle is equipped with Manual Speed Limit Assist, press and hold the Driving Assist button to turn off Smart Cruise Control. However, Manual Speed Limit Assist will turn on.

Based on Drive Mode

Smart Cruise Control will change acceleration based on the drive mode selected from Drive Mode Integrated Control system. Refer to the following chart.

Drive mode	Smart Cruise Control
COMFORT	Normal
ECO	Slow
SPORT	Fast
SMART (if equipped)	Normal
CUSTOM (if equipped)	Normal

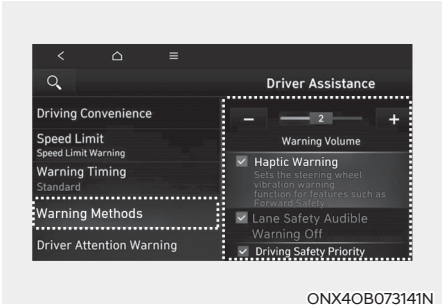
Information

For more details on drive mode, refer to "Drive Mode Integrated Control System" section in chapter 6.

- **Smart Cruise Control may not turn on or off in some of the drive modes for the operating conditions are not satisfied.**
- **If your vehicle is not equipped with Drive Mode Integrated Control system, Smart Cruise Control accelerates your vehicle at a Normal level.**



ONX4OB073097N



ONX4OB073141N

Warning Methods

The Warning Methods can be set with the vehicle on. Select 'User Settings → Driver Assistance → Warning Methods' from the settings menu in the instrument cluster or 'Setup → Vehicle → Driver Assistance → Warning Methods' from the settings menu in the infotainment system to change the following settings.

- **Warning Volume**: Adjusts the volume of the warning sound.

  Even if you set the warning volume to 'Off' or '0', the warning sound will sound at the volume set to 'Low' or '1'. (if equipped)
- **Haptic Warning**: Activate the steering wheel vibration warning. (if equipped)
- **Driving Safety Priority**: Lowers all other audio volumes when the Driving Safety system sounds a warning. (for infotainment system type)

Information

- **If you change the Warning Methods, it can be applied to each function of the driver assistance system. Please check and change it in each function.**
- **If the vehicle is restarted, Warning Methods will maintain the last setting.**
- **The setting menu may not exist based on vehicle specification.**
- **If you turn off the haptic warning when the warning volume is 'Off' or '0', the warning volume will turn on and will be set to 'Medium' or '2'.**
- **If you set the warning volume to 'Off' or '0' when the haptic warning is off, the haptic warning will turn on.**

Smart Cruise Control Operation

Operating conditions

Smart Cruise Control will operate when the following conditions are satisfied.

Basic function

- The gear is in D (Drive)
- The driver's door is closed
- EPB (Electronic Parking Brake) is not applied
- Your vehicle speed is within the operating speed range
  - 5~110 mph (10~180 km/h): when there is no vehicle in front
  - 0~110 mph (0~180 km/h): when there is a vehicle in front
- ESC (Electronic Stability Control) or ABS (Anti-Lock Braking System) is on
- ESC (Electronic Stability Control) or ABS (Anti-Lock Braking System) is not controlling the vehicle
- Engine RPM is not in the red zone
- Forward Collision-Avoidance Assist brake control is not operating
- Remote Smart Parking Assist brake control is not operating (if equipped)

Information

When stopped behind another vehicle, the driver can turn on Smart Cruise Control while the brake pedal is depressed.

Overtake Assist Control

Overtake Assist Control will operate when the turn signal indicator is turned on to the left while Smart Cruise Control is operating, and the following conditions are satisfied:

- Your vehicle speed is above 40 mph (60 km/h)
- The hazard warning flasher is off
- A vehicle is detected in front of your vehicle
- Deceleration is not needed to maintain distance with the vehicle in front

WARNING

- **When the turn signal indicator is turned on to the left while there is a vehicle ahead, the vehicle may accelerate temporarily. Pay attention to the road conditions at all times.**
- **Regardless of your country's driving direction, Overtake Assist Control will operate when the conditions are satisfied. When using the function in countries with different driving direction, always check the road conditions at all times.**

Display and Control

Basic function

You can see the status of the Smart Cruise Control operation in the Driving Assist mode on the cluster. Refer to “Cluster Display Modes” section in chapter 4.

Smart Cruise Control will be displayed as below depending on the status of the function.



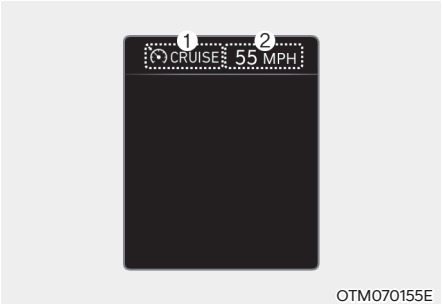
OTMH070022N

- When operating

(1) Whether there is a vehicle ahead and the selected distance level are displayed.

(2) Set speed is displayed.

(3) Whether there is a vehicle ahead and the target vehicle distance are displayed.



OTM070155E

- When temporarily canceled

(1) CRUISE indicator is displayed.

(2) The previous set speed is shaded.

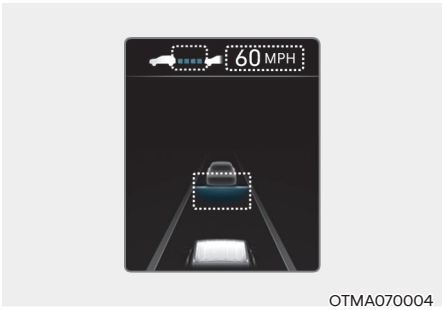
Information

- **The distance of the front vehicle on the cluster is displayed according to the actual distance between your vehicle and the vehicle ahead.**
- **The target distance may vary according to the vehicle speed and the set distance level. If vehicle speed is low, even though the vehicle distance have changed, the change of the target vehicle distance may be small.**

Information

The images and colors in the instrument cluster may differ depending on the cluster type or theme selected from the instrument cluster.

To temporarily accelerate



OTMA070004

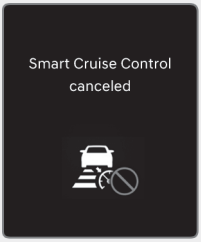
If you want to speed up temporarily without altering the set speed while Smart Cruise Control is operating, depress the accelerator pedal. While the accelerator pedal is depressed, the set speed, distance level and target distance will blink on the cluster.

However, if the accelerator pedal is depressed insufficiently, the vehicle may decelerate.

WARNING

Be careful when accelerating temporarily, because the speed and distance is not controlled automatically even if there is a vehicle in front of you.

Smart Cruise Control temporarily canceled



OTM070113N

Smart Cruise Control will be temporarily canceled automatically when:

- The vehicle speed is above 120 mph (190 km/h)
- The accelerator pedal is continuously depressed for a certain period of time
- The conditions for Smart Cruise Control to operate is not satisfied

If Smart Cruise Control is temporarily canceled automatically, the ‘Smart Cruise Control canceled’ warning message will appear on the cluster, and an audible warning will sound to warn the driver.

If Smart Cruise Control is temporarily canceled while the vehicle is at a standstill with Smart Cruise Control, EPB (Electronic Parking Brake) maybe applied.

WARNING

When Smart Cruise Control is temporarily canceled, distance with the front vehicle will not be maintained. Always have your eyes on the road while driving, and if necessary, depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

Smart Cruise Control conditions not satisfied



OTM070112N

If the Driving Assist button, + switch, - switch or II↺ switch is pushed when Smart Cruise Control operating conditions are not satisfied, the 'Smart Cruise Control conditions not met' will appear on the cluster, and an audible warning will sound.

In traffic situation



OTM070114L

In traffic, your vehicle will stop if the vehicle ahead of you stops. Also, if the vehicle ahead of you starts moving, your vehicle will start as well. In addition, after the vehicle has stopped and a certain time have passed, the 'Use switch or pedal to accelerate' message will appear on the cluster. Depress the accelerator pedal or operate the + switch, - switch or II↺ switch to start driving.

WARNING

While the message is displayed on the cluster, if there is no vehicle in front or the vehicle is far away from you, and the + switch, – switch or (Pause/Resume II↺) switch is operated, Smart Cruise Control will automatically cancel and EPB will be applied. However, if the accelerator pedal is depressed, EPB (Electronic Parking Brake) will not be applied even though the function is canceled. Always pay attention to the road condition ahead.

Warning road conditions ahead



ONX4E070035

In the following situation, the 'Watch for surrounding vehicles' warning message will appear on the cluster, and an audible warning will sound to warn the driver of road conditions ahead.

- The vehicle in front disappears when Smart Cruise Control is maintaining the distance with the vehicle ahead while driving below a certain speed.
- While the 'Use switch or pedal to accelerate' message is displayed on the cluster, if there is no vehicle in front or the vehicle is far away from you, and the + switch, – switch or switch is pushed.

WARNING

Always pay attention to vehicles or objects that may suddenly appear in front of you, and if necessary, depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

Collision Warning



ONX4072103N

While Smart Cruise Control is operating, when the collision risk with the vehicle ahead is high, the 'Collision Warning' warning message will appear on the cluster, and an audible warning will sound to warn the driver. Always have your eyes on the road while driving, and if necessary, depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

WARNING

In the following situations, Smart Cruise Control may not warn the driver of a collision.

- **The distance from the front vehicle is near, or the vehicle speed of the front vehicle is faster or similar to your vehicle**
- **The speed of the front vehicle is very slow or is at a standstill**
- **The accelerator pedal is depressed right after Smart Cruise Control is turned on**

WARNING

Take the following precautions when using Smart Cruise Control:

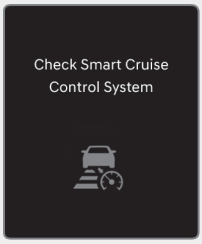
- **Smart Cruise Control does not substitute for proper and safe driving. It is the responsibility of the driver to always check the speed and distance to the vehicle ahead.**
- **Smart Cruise Control may not recognize unexpected and sudden situations or complex driving situations, so always pay attention to driving conditions and control your vehicle speed.**
- **Keep Smart Cruise Control off when the function is not in use to avoid inadvertently setting a speed.**
- **Do not open the door or leave the vehicle when Smart Cruise Control is operating, even if the vehicle is stopped.**
- **Always be aware of the selected speed and vehicle distance.**
- **Keep a safe distance according to road conditions and vehicle speed. If the vehicle distance is too close during high-speed driving, a serious collision may result.**
- **When maintaining distance with the vehicle ahead, if the front vehicle disappears, Smart Cruise Control may suddenly accelerate to the set speed. Always be aware of unexpected and sudden situations from occurring.**
- **Vehicle speed may decrease on an upward slope and increase on a downward slope.**
- **Always be aware of situations such as when a vehicle cuts in suddenly.**
- **When you are towing a trailer or another vehicle, have Smart Cruise Control turned off due to safety reasons.**
- **Turn off Smart Cruise Control when your vehicle is being towed.**
- **Smart Cruise Control may not operate normally if interfered by strong electromagnetic waves.**
- **Smart Cruise Control may not detect an obstacle in front and lead to a collision. Always look ahead cautiously to prevent unexpected and sudden situations from occurring.**
- **Vehicles moving in front of you with a frequent lane change may cause a delay in Smart Cruise Control reaction or may cause Smart Cruise Control to react to a vehicle actually in an adjacent lane. Always drive cautiously to prevent unexpected and sudden situations from occurring.**
- **Always be aware of the surroundings and drive safely, even though a warning message does not appear or an audible warning does not sound.**
- **If any other system's warning message is displayed or warning sound is generated, Smart Cruise Control warning message may not be displayed and warning sound may not be generated.**
- **You may not hear the warning sound of Forward Collision-Avoidance Assist if the surroundings are noisy.**
- **The vehicle manufacturer is not responsible for any traffic violation or accidents caused by the driver.**
- **Always set the vehicle speed to the speed limit in your area.**

Information

- **Smart Cruise Control may not operate for 15 seconds after the vehicle is started or the front view camera or front radar is initialized.**
- **You may hear a sound when the brake is controlled by Smart Cruise Control.**

Smart Cruise Control Malfunction and Limitations

Smart Cruise Control malfunction



OTM070116N

When Smart Cruise Control is not working properly, the 'Check Smart Cruise Control system' warning message will appear, and the ⚠ warning light will illuminate on the cluster. Have the vehicle inspected by an authorized HYUNDAI dealer.

Smart Cruise Control disabled



OTM070115N

When the front radar cover or sensor is covered with snow, rain, or foreign material, it can reduce the detecting performance and temporarily limit or disable Smart Cruise Control.

If this occurs, the 'Smart Cruise Control disabled. Radar blocked' warning message will appear for a certain period of time on the cluster.

Smart Cruise Control will operate normally when snow, rain or foreign material is removed.

WARNING

Even though the warning message does not appear on the cluster, Smart Cruise Control may not properly operate.

CAUTION

Smart Cruise Control may not properly operate in an area (for example, open terrain), where there is nothing to detect after turning ON the engine.

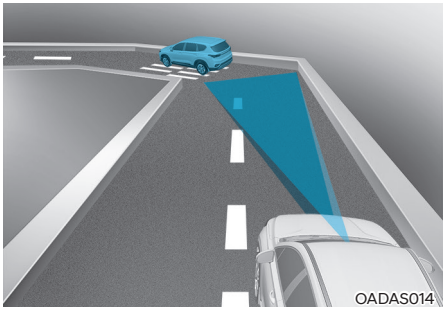
Limitations of Smart Cruise Control

Smart Cruise Control may not operate normally, or it may operate unexpectedly under the following circumstances:

- The detecting sensor or the surroundings are contaminated or damaged
- Washer fluid is continuously sprayed, or the wiper is on
- The camera lens is contaminated due to tinted, filmed or coated windshield, damaged glass, or sticky foreign material (sticker, bug, etc.) on the glass
- Moisture is not removed or frozen on the windshield
- The field of view of the front view camera is obstructed by sun glare
- Street light or light from an oncoming vehicle is reflected on the wet road surface, such as a puddle on the road
- The temperature around the front view camera is high or low
- An object is placed on the dashboard
- The surrounding is very bright
- The surrounding is very dark, such as in a tunnel, etc.
- The brightness changes suddenly, for example when entering or exiting a tunnel
- The brightness outside is low, and the headlights are not on or are not bright
- Driving in heavy rain or snow, or thick fog
- Driving through steam, smoke or shadow
- Only part of the vehicle is detected
- The vehicle in front has no tail lights, tail lights are located unusually, etc.
- The brightness outside is low, and the tail lamps are not on or are not bright
- The rear of the front vehicle is small or does not look normal (for example, tilted, overturned, etc.)
- The front vehicle's ground clearance is low or high
- A vehicle suddenly cuts in front
- Your vehicle is being towed
- Driving through a tunnel or iron bridge
- Driving near areas containing metal substances, such as a construction zone, railroad, etc.
- A material is near that reflects very well on the front radar, such as a guardrail, nearby vehicle, etc.
- The bumper around the front radar is impacted, damaged or the front radar is out of position
- The temperature around the front radar is high or low
- Driving in large areas where there are few vehicles or structures (for example, desert, meadow, suburb, etc.)
- The vehicle in front is made of material that does not reflect on the front radar
- Driving near a highway (or motorway) interchange or tollgate
- Driving on a slippery surface due to snow, water puddle, ice, etc.
- Driving on a curved road
- The vehicle in front is detected late
- The vehicle in front is suddenly blocked by an obstacle
- The vehicle in front suddenly changes lane or suddenly reduces speed

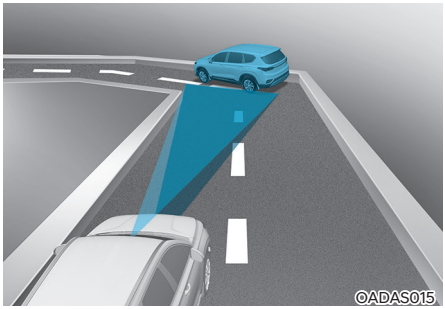
- The vehicle in front is bent out of shape
- The front vehicle's speed is fast or slow
- With a vehicle in front, your vehicle changes lane at low speed
- The vehicle in front is covered with snow
- Unstable driving
- You are on a roundabout and the vehicle in front is not detected
- You are continuously driving in a circle
- Driving in a parking lot
- Driving through a construction area, unpaved road, partial paved road, uneven road, speed bumps, etc.
- Driving on an incline road, curved road, etc.
- Driving through a roadside with trees or streetlights
- The adverse road conditions cause excessive vehicle vibrations while driving
- Your vehicle height is low or high due to heavy loads, abnormal tire pressure, etc.
- Driving through a narrow road where trees or grass are overgrown
- There is interference by electromagnetic waves, such as driving in an area with strong radio waves or electrical noise

- Driving on a curved road



On curves, Smart Cruise Control may not detect a vehicle in the same lane, and may accelerate to the set speed. Also, vehicle speed may rapidly decrease when the vehicle ahead is detected suddenly.

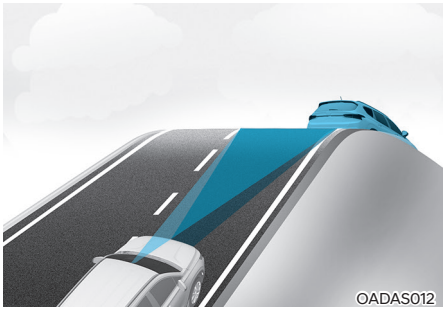
Select the appropriate set speed on curves and apply the brake pedal or accelerator pedal according to the road and driving conditions ahead.



Your vehicle speed can be reduced due to a vehicle in the adjacent lane.

Apply the accelerator pedal and select the appropriate set speed. Check to be sure that the road conditions permit safe operation of the Smart Cruise Control.

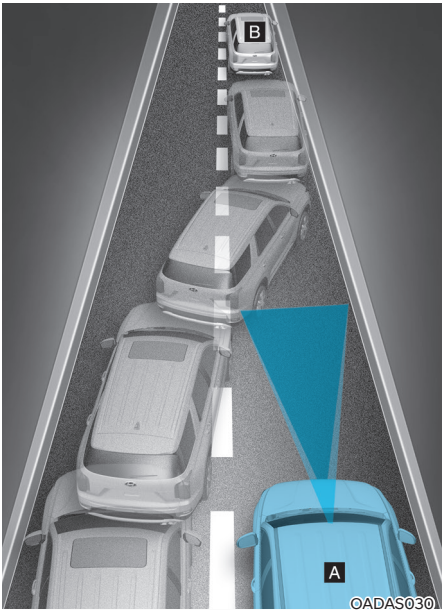
- Driving on an inclined road



During uphill or downhill driving, the Smart Cruise Control may not detect a moving vehicle in your lane, and cause your vehicle to accelerate to the set speed. Also, vehicle speed will rapidly decrease when the vehicle ahead is detected suddenly.

Select the appropriate set speed on inclines and apply the brake pedal or accelerator pedal according to the road and driving conditions ahead.

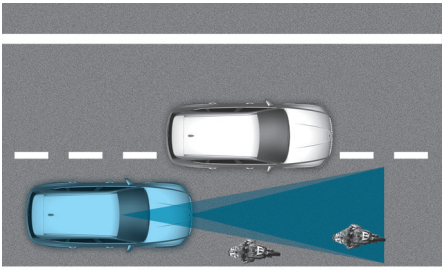
- Changing lanes

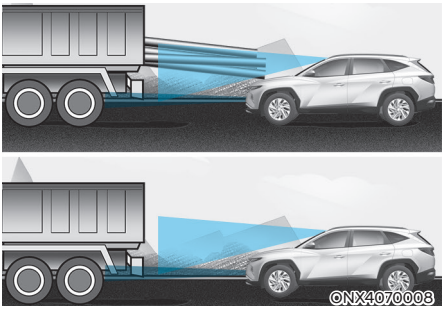


[A] : Your vehicle, [B] : Lane changing vehicle

When a vehicle moves into your lane from an adjacent lane, it cannot be detected by the sensor until it is in the sensor's detection range. Smart Cruise Control may not immediately detect the vehicle when the vehicle changes lanes abruptly. In this case, you must maintain a safe braking distance, and if necessary, depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

- Situations when detecting are limited





In the following cases, some vehicles in your lane cannot be detected by the sensor:

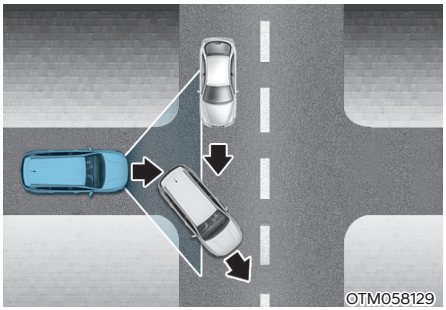
- Vehicles offset to one side
- Slow-moving vehicles or sudden-decelerating vehicles
- Vehicles with higher ground clearance or vehicles carrying loads that stick out of the back of the vehicle
- Vehicles that has the front lifted due to heavy loads
- Vehicles within approximately 6 feet (2 m) from your vehicle
- Oncoming vehicles
- Stopped vehicles
- Vehicles with small rear profile, such as trailers
- Narrow vehicles, such as motorcycles or bicycles
- Special vehicles
- Animals and pedestrians

Adjust your vehicle speed by depressing the brake pedal according to the road and driving conditions ahead.

In the following cases, the vehicle in front cannot be detected by the sensor:

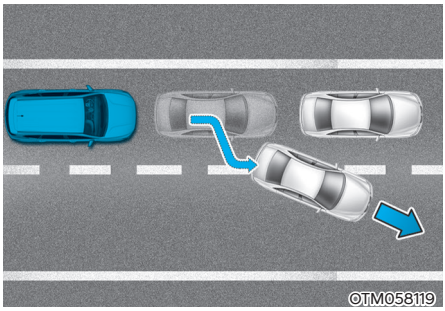
- You are steering your vehicle
- Driving on narrow or sharply curved roads

Adjust your vehicle speed by depressing the brake pedal according to the road and driving conditions ahead.



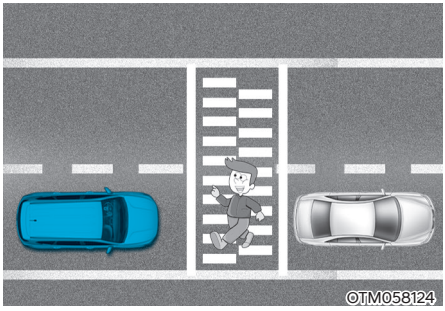
- When a vehicle ahead disappears at an intersection, your vehicle may accelerate.

  Always pay attention to road and driving conditions while driving.



- When a vehicle in front of you merges out of the lane, Smart Cruise Control may not immediately detect the new vehicle that is now in front of you.

  Always pay attention to road and driving conditions while driving.



- Always look out for pedestrians when your vehicle is maintaining a distance with the vehicle ahead.

Information

This device complies with Part 15 of the FCC rules.

Operation is subject to the following three conditions:

1. **This device may not cause harmful interference, and**
2. **This device must accept any interference received, including interference that may cause undesired operation.**
3. **Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.**

Information

Radio frequency radiation exposure information:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance of 8 in. (20 cm) between the radiator (antenna) and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

NAVIGATION-BASED SMART CRUISE CONTROL (NSCC) (IF EQUIPPED)

Navigation-based Smart Cruise Control helps maintain safe speed depending on the road conditions by using information from the navigation system when driving on highways while Smart Cruise Control is operating.

Information

- **Navigation-based Smart Cruise Control is available only on controlled access road of certain highways.**

  ✳ **Controlled access road indicates roads with limited entrances and exits that allow uninterrupted high speed traffic flow. Only passenger cars and motorcycles are allowed on controlled access roads.**

Available highway (Controlled access road)	
USA	Select Interstate Highway and U.S. (Federal) and State Highways
Canada	Select Provincial and Territorial Highways

- **Additional highways may be expanded by future navigation updates.**

Information

Navigation-based Smart Cruise Control operates on main roads of highways (or motorways), and does not operate on interchanges or junctions.

Highway Curve Zone Auto Slowdown

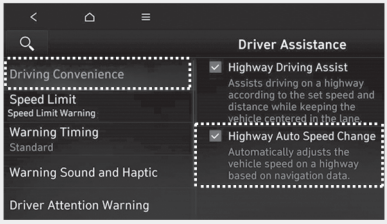
If vehicle speed is high, Highway Curve Zone Auto Slowdown function will temporarily decelerate your vehicle or limit acceleration to help you drive safely on a curve based on the curve information from the navigation.

Highway Set Speed Auto Change

Highway Set Speed Auto Change function automatically changes Smart Cruise Control set speed based on the speed limit information from the navigation.

Navigation-based Smart Cruise Control Settings

Setting features



ONX4072105N

With the engine on, select 'Driver Assistance → Driving Convenience → Highway Auto Speed Change' from the Settings menu to turn on Navigation-based Smart Cruise Control and deselect to turn off the function.

Information

When there is a problem with Navigation-based Smart Cruise Control, the function cannot be set from the Settings menu.

Navigation-based Smart Cruise Control Operation

Operating conditions

Navigation-based Smart Cruise Control is ready to operate if all of the following conditions are satisfied:

- Smart Cruise Control is operating
- Driving on main roads of highways

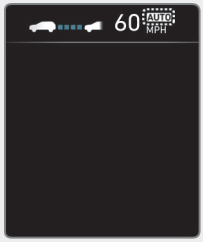
Information

For more details on how to operate Smart Cruise Control, refer to "Smart Cruise Control (SCC)" section in this chapter.

Display and control

When Navigation-based Smart Cruise Control operates, it will be displayed on the cluster as follows:

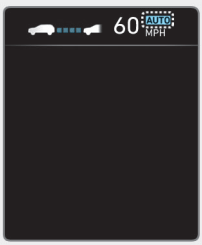
- Standby state



OTMA070006

If the operating conditions are satisfied, the white AUTO indicator will illuminate.

- Operating state



OTMA070005



ONX4PH072019N

If temporary deceleration is required in the standby state and Navigation-based Smart Cruise Control is operating, the green AUTO symbol will illuminate on the cluster.

If the Highway Set Speed Auto Change function operates, the AUTO symbol and set speed will illuminate in green on the cluster, and an audible warning will sound.

WARNING



ONX4E070003

'Drive carefully' warning message will appear in the following circumstances:

- **Navigation-based Smart Cruise Control is not able to slow down your vehicle to a safe speed**

Information

Highway Curve Zone Auto Slowdown and Highway Set Speed Auto Change function uses the same AUTO symbol.

Highway Curve Zone Auto Slowdown

- Depending on the curve ahead on the highway, the vehicle will decelerate, and after passing the curve, the vehicle will accelerate to Smart Cruise Control set speed.
- Vehicle deceleration time may differ depending on the vehicle speed and the degree of the curve on the road. The higher the driving speed, deceleration will start faster.

Highway Set Speed Auto Change

- Highway Set Speed Auto Change function will operate when Smart Cruise Control set speed and the highway speed limit is matched.
- While Highway Set Speed Auto Change function is operating, when the highway speed limit changes, Smart Cruise Control set speed automatically changes to the changed speed limit.
- If Smart Cruise Control set speed is adjusted different from the speed limit, Highway Set Speed Auto Change function will be in the standby state.
- If Highway Set Speed Auto Change function has changed to the standby state by driving on a road other than the highway main road, Highway Set Speed Auto Change function will operate again when you drive on the main road again without setting the set speed.
- If Highway Set Speed Auto Change function has changed to the standby state by depressing the brake pedal or pressing the II↺ switch on the steering wheel, press the II↺ switch to restart the function.
- Highway Set Speed Auto Change function does not operate on highway interchanges or junctions.

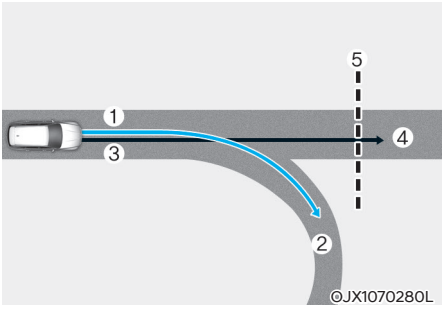
Information

- **Highway Set Speed Auto Change function only operates based on the speed limits of the highway, it does not work with speed cameras.**
- **When Highway Set Speed Auto Change function is operating, the vehicle automatically accelerates or decelerates when the highway speed limit changes.**
- **The maximum set speed for Highway Set Speed Auto Change function is 86 mph (140 km/h).**
- **If the speed limit of a new road is not updated in the navigation, Highway Set Speed Auto Change function may not operate properly.**
- **If the speed unit is set to a unit other than the speed unit used in your country, Highway Set Speed Auto Change function may not operate properly.**

Limitations of Navigation-based Smart Cruise Control

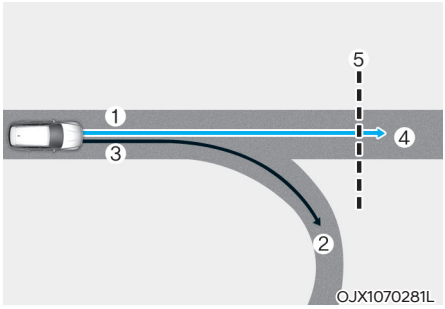
Navigation-based Smart Cruise Control may not operate normally under the following circumstances:

- The navigation is not working properly
- Speed limit and road information in the navigation is not updated
- Map information is not transmitted due to infotainment system's abnormal operation
- The map information and the actual road is different because of real-time GPS data or map information error
- The navigation searches for a route while driving
- GPS signals are blocked in areas such as a tunnel
- A road that divides into two or more roads and joins again
- The driver goes off course the route set in the navigation
- The route to the destination is changed or canceled by resetting the navigation
- The vehicle enters a service station or rest area
- Android Auto or Car Play is operating
- The navigation cannot detect the current vehicle position (for example, elevated roads including overpass adjacent to general roads or nearby roads exist in a parallel way)
- The navigation is being updated while driving
- The navigation is being restarted while driving
- The speed limit of some sections changes according to the road situations
- Driving on a road under construction
- Driving on a road that is controlled
- There is bad weather, such as heavy rain, heavy snow, etc.
- Driving on a road that is sharply curved



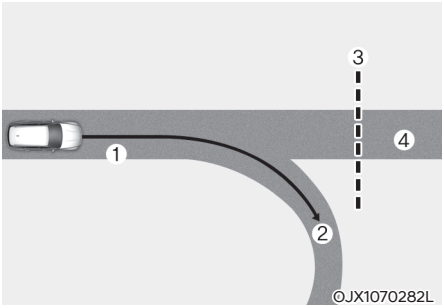
[1] : Set route, [2] : Branch line, [3] : Driving route, [4] : Main road, [5] : Curved road section

- When there is a difference between the navigation set route (branch line) and the driving route (main road), Highway Curve Zone Auto Slowdown function may not operate until the driving route is recognized as the main road.
- When the vehicle's driving route is recognized as the main road by maintaining the main road instead of the navigation set route, Highway Curve Zone Auto Slowdown function will operate. Depending on the distance to the curve and the current vehicle speed, vehicle deceleration may not be sufficient or may decelerate rapidly.



[1] : Set route, [2] : Branch line, [3] : Driving route, [4] : Main road, [5] : Curved road section

- When there is a difference between the navigation route (main road) and the driving route (branch line), Highway Curve Zone Auto Slowdown function will operate based on the curve information on the main road.
- When it is judged that you are driving out of the route by entering the highway interchange or junction, Highway Curve Zone Auto Slowdown function will not operate.



[1] : Driving route, [2] : Branch line,
[3] : Curved road section, [4] : Main road

- If there is no destination set on the navigation, Highway Curve Zone Auto Slowdown function will operate based on the curve information on the main road.
- Even if you depart from the main road, Highway Curve Zone Auto Slowdown function may temporarily operate due to navigation information of the highway curve section.

WARNING

- **Navigation-based Smart Cruise Control is not a substitute for safe driving practices, but a convenience function. Always have your eyes on the road, and it is the responsibility of the driver to avoid violating traffic laws.**
- **The navigation's speed limit information may differ from the actual speed limit information on the road. It is the driver's responsibility to check the speed limit on the actual driving road or lane.**
- **Navigation-based Smart Cruise Control will automatically be cancelled when you leave the highway (or motorway) main road. Always pay attention to road and driving conditions while driving.**
- **Navigation-based Smart Cruise Control may not operate due to the existence of leading vehicles and the driving conditions of the vehicle. Always pay attention to road and driving conditions while driving.**
- **When you are towing a trailer or another vehicle, have that Navigation-based Smart Cruise Control turned off due to safety reasons.**

- After you pass through a tollgate on a highway (or motorway), Navigation-based Smart Cruise Control will operate based on the first lane. If you enter one of the other lanes, Navigation-based Smart Cruise Control may not operate properly.
- The vehicle will accelerate if the driver depresses the accelerator pedal while Navigation-based Smart Cruise Control is operating, and the function will not decelerate the vehicle. However, if the accelerator pedal is depressed insufficiently, the vehicle may decelerate.
- If the driver accelerates and releases the accelerator pedal while Navigation-based Smart Cruise Control is operating, the vehicle may not decelerate sufficiently or may rapidly decelerate to a safe speed.
- If the curve is too large or too small, Navigation-based Smart Cruise Control may not operate.

Information

- The time gap could occur between the navigation's guidance and when Navigation-based Smart Cruise Control operation starts and ends.
- The speed information on the cluster and navigation may differ.
- Even if you are driving at a speed lower than Smart Cruise Control set speed, acceleration may be limited by the curve sections ahead.
- If Navigation-based Smart Cruise Control is operating while leaving the main road to enter an interchange, junction, rest area, etc., the function may operate for a certain period of time.
- Deceleration by Navigation-based Smart Cruise Control may feel it is not sufficient due to road conditions such as uneven road surfaces, narrow lanes, etc.

Information

This device complies with Part 15 of the FCC rules.

Operation is subject to the following three conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.
3. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

Information

Radio frequency radiation exposure information:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance of 8 in. (20 cm) between the radiator (antenna) and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

LANE FOLLOWING ASSIST (LFA)

Lane Following Assist detects lane markings and/or a vehicle ahead on the road, and center your vehicle in the lane.

Detecting sensor



[1] : Front view camera

The front view camera is used as a detecting sensor to detect lane markings and vehicles in front.

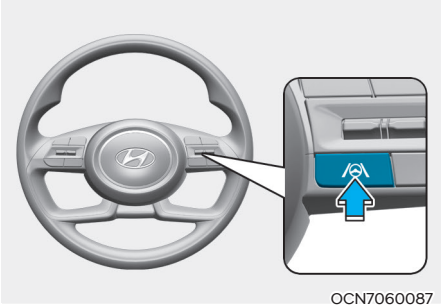
Refer to the picture above for the detailed location of the detecting sensor.

CAUTION

For more details on the precautions of the front view camera, refer to "Forward Collision-Avoidance Assist (FCA)" section in this chapter.

Lane Following Assist Settings

Setting features



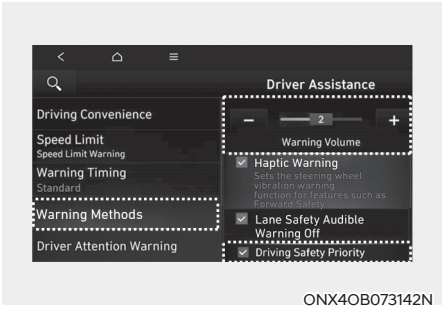
Turning Lane Following Assist ON/OFF

With the engine on, shortly press the Lane Driving Assist button located on the steering wheel to turn on Lane Following Assist. The white or green indicator light will illuminate on the cluster.

Press the button again to turn off Lane Following Assist.



ONX4OB073097N



ONX4OB073142N

Warning Methods

The Warning Methods can be set with the vehicle on. Select 'User Settings → Driver Assistance → Warning Methods' from the settings menu in the instrument cluster or 'Setup → Vehicle → Driver Assistance → Warning Methods' from the settings menu in the infotainment system to change the following settings.

- **Warning Volume**: Adjusts the volume of the warning sound.

  Even if you set the warning volume to 'Off' or '0', the Hands-off warning sound will sound at the volume set to 'Low' or '1'. (if equipped)
- **Driving Safety Priority**: Lowers all other audio volumes when the Driving Safety system sounds a warning. (for infotainment system type)

Information

- **If you change the Warning Methods, the Warning Methods of other Driver Assistance systems may change.**
- **If the vehicle is restarted, Warning Methods will maintain the last setting.**
- **The setting menu may not exist based on vehicle specification.**

Lane Following Assist Operation

Warning and control



ONX4PH071006N

Lane Following Assist

If the vehicle ahead and/or both lane markings are detected and your vehicle speed is below 110 mph (180 km/h), the green indicator light will illuminate on the cluster, and Lane Following Assist will help the vehicle stay in lane by assisting the steering wheel.

CAUTION

When the steering wheel is not assisted, the green indicator light will blink and change to white.



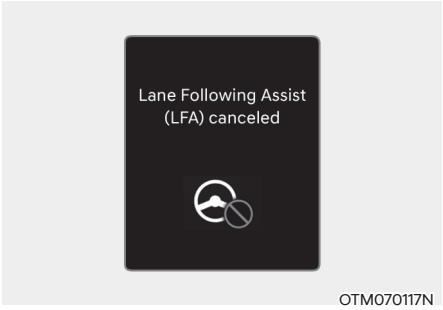
ONX4E070091

Hands-off warning

If the driver takes their hands off the steering wheel for several seconds, the 'Place hands on the steering wheel' warning message will appear and an audible warning will sound in stages.

First stage : Warning message

Second stage : Warning message (red steering wheel) and audible warning



OTM070117N

If the driver still does not have their hands on the steering wheel after the hands-off warning, the 'Lane Following Assist (LFA) canceled' warning message will appear and Lane Following Assist will be automatically canceled.

WARNING

- **The steering wheel may not be assisted if the steering wheel is held very tight or the steering wheel is steered over a certain degree.**
- **Lane Following Assist does not operate at all times. It is the responsibility of the driver to safely steer the vehicle and to maintain the vehicle in its lane.**
- **The hands–off warning message may appear late depending on road conditions. Always have your hands on the steering wheel while driving.**
- **If the steering wheel is held very lightly the hands–off warning message may appear because Lane Following Assist may not recognize that the driver has their hands on the steering wheel.**
- **If you attach objects to the steering wheel, the hands-off warning may not work properly.**

Information

- **When both lane markings are detected, the lane lines on the cluster will change from grey to white.**

■ Lane undetected



ONX4PH071013N

■ Lane detected



ONX4070012

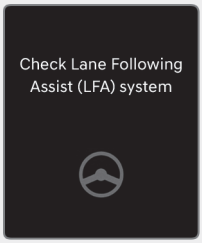
- If lane markings are not detected, steering wheel control by Lane Following Assist can be limited depending on whether a vehicle is in front or the driving conditions of the vehicle.
- Even though the steering is assisted by Lane Following Assist, the driver may control the steering wheel.
- The steering wheel may feel heavier or lighter when the steering wheel is assisted by Lane Following Assist than when it is not.

Information

The images and colors in the cluster may differ depending on the cluster type or theme selected from the cluster.

Lane Following Assist Malfunction and Limitations

Lane Following Assist malfunction



OTM070118N

When Lane Following Assist is not working properly, the ‘Check Lane Following Assist (LFA) system’ warning message will appear on the cluster. If this occurs, have the vehicle inspected by an authorized HYUNDAI dealer.

Limitations of Lane Following Assist

For more details on Lane Following Assist limitations, refer to “Lane Keeping Assist (LKA)” section in this chapter.

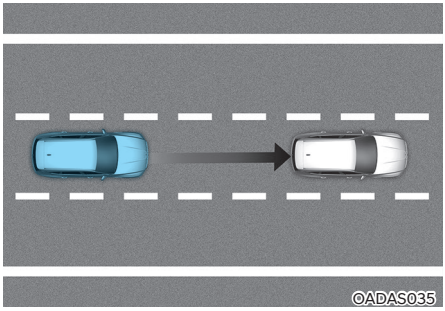
WARNING

For more details on Lane Following Assist precautions, refer to “Lane Keeping Assist (LKA)” section in this chapter.

HIGHWAY DRIVING ASSIST (HDA) (IF EQUIPPED)

Basic function

Highway Driving Assist detect lanes and vehicles ahead, and help maintain the distance from the vehicle ahead and the set speed, and center your vehicle in the lane while driving on the highway.



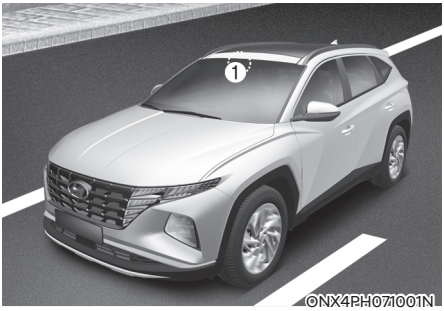
Information

- **Highway Driving Assist is available only on controlled access road of certain highways.**
  - ✳ **Controlled access road indicates roads with limited entrances and exits that allow uninterrupted high speed traffic flow. Only passenger cars and motorcycles are allowed on controlled access roads.**

Available highway (Controlled access road)	
USA	Select Interstate Highway and U.S. (Federal) and State Highways
Canada	Select Provincial and Territorial Highways

- **Additional highways may be expanded by future navigation updates.**

Detecting sensor





[1] : Front view camera,
[2] : Front radar

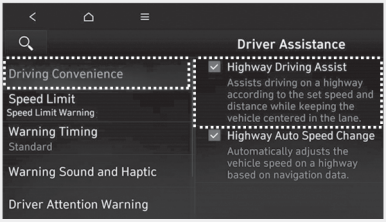
Refer to the picture above for the detailed location of the detecting sensors.

CAUTION

For more details on the precautions of the detecting sensors, refer to “Forward Collision-Avoidance Assist (FCA)” section in this chapter.

Highway Driving Assist Settings

Setting features



ONX4072104N

With the engine on, select or deselect 'Driver Assistance → Driving Convenience' from the Settings menu to set whether or not to use each function.

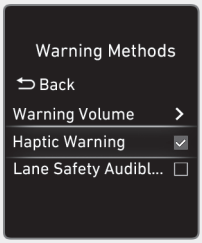
- If 'Highway Driving Assist' is selected, it helps maintain distance from the vehicle ahead, maintain the set speed, and helps center the vehicle in the lane.

Information

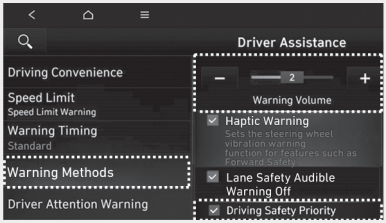
- **If there is a problem with the functions, the settings cannot be changed. Have Highway Driving Assist inspected by an authorized HYUNDAI dealer.**
- **If the engine is restarted, the functions will maintain the last setting.**

WARNING

For your safety, only change the Settings after parking the vehicle at a safe location.



ONX4OB073097N



ONX4OB073142N

Warning Methods

The Warning Methods can be set with the vehicle on. Select 'User Settings → Driver Assistance → Warning Methods' from the settings menu in the instrument cluster or 'Setup → Vehicle → Driver Assistance → Warning Methods' from the settings menu in the infotainment system to change the following settings.

- **Warning Volume**: Adjusts the volume of the warning sound.

  Even if you set the warning volume to 'Off' or '0', the Hands-off warning sound will sound at the volume set to 'Low' or '1'. (if equipped)
- **Driving Safety Priority**: Lowers all other audio volumes when the Driving Safety system sounds a warning. (for infotainment system type)

Information

- **If you change the Warning Methods, the Warning Methods of other Driver Assistance systems may change.**
- **If the vehicle is restarted, Warning Methods will maintain the last setting.**
- **The setting menu may not exist based on vehicle specification.**

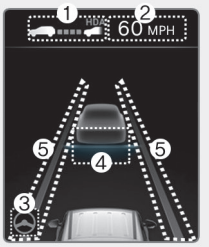
Highway Driving Assist Operation

Displaying operating status

You can see the status of the Highway Driving Assist operation in the Driving Assist mode on the cluster. Refer to “Cluster Display Modes” section in chapter 4.

Highway Driving Assist will be displayed as below depending on the status of the function.

■ Operating state



ONX4H070006N

■ Standby state



ONX4PH071016N

(1) Highway Driving Assist indicator, whether there is a vehicle ahead and the selected distance level are displayed.

✳ Highway Driving Assist indicator

- Green HDA : Operating state
- White HDA : Standby state

(2) Set speed.

(3) Lane Following Assist indicator.

(4) Whether there is a vehicle ahead and the selected.

(5) Whether the lane is detected or not.

Operating conditions

Highway Driving Assist operates when:

- Driving on the main road of highways, and turning on Highway Driving Assist by pressing the Driving Assist button.
- Entering the main road of highways while Lane Following assist and Smart Cruise Control are enabled.

Information

The images and colors in the cluster may differ depending on the cluster type or theme selected from the cluster.

- Restarting after stopping



OTM070114L

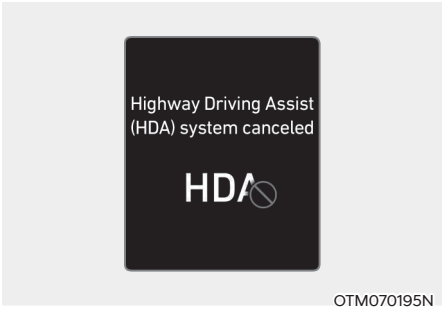
When Highway Driving Assist is operating, your vehicle will stop if the vehicle ahead of you stops. Also, if the vehicle ahead of you starts moving within 30 seconds after the stop, your vehicle will start as well. In addition, after the vehicle has stopped and 30 seconds have passed, the 'Use switch or pedal to accelerate' message will appear on the cluster. Depress the accelerator pedal or operate the + switch, - switch or II↺ switch to start driving.

- Hands-off warning



ONX4E070091

If the driver takes their hands off the steering wheel for several seconds, the 'Place hands on the steering wheel' warning message will appear and an audible warning will sound in stages.
First stage : Warning message
Second stage : Warning message (red steering wheel) and audible warning



OTM070195N

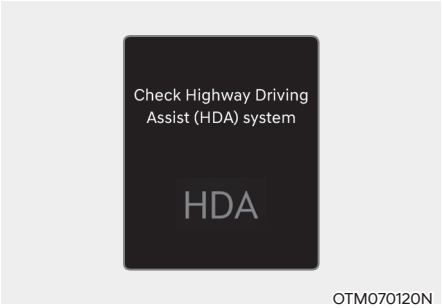
If the driver still does not have their hands on the steering wheel after the hands-off warning, the 'Highway Driving Assist (HDA) canceled' warning message will appear and Highway Driving Assist will be automatically canceled.

Highway Driving Assist standby

When Smart Cruise Control is temporarily canceled while Highway Driving Assist is operating, Highway Driving Assist will be in the standby state. At this time, Lane Following Assist will operate normally.

Highway Driving Assist Malfunction and Limitations

Highway Driving Assist malfunction



OTM070120N

When Highway Driving Assist is not working properly, the 'Check HDA (Motorway Driving Assist) system' warning message will appear, and the ⚠ warning light will illuminate on the cluster. Have the vehicle inspected by an authorized HYUNDAI dealer.

WARNING

- The driver is responsible for braking and safe driving.
- Always have your hands on the steering wheel while driving.
- Highway Driving Assist is a supplemental function that assists the driver in driving the vehicle and is not a complete autonomous driving system. Always check road conditions, and if necessary, take appropriate actions to drive safely.
- Always have your eyes on the road, and it is the responsibility of the driver to avoid violating traffic laws. The vehicle manufacturer is not responsible for any traffic violation or accidents caused by the driver.
- Highway Driving Assist may not detect possible collisions due to limitations of the function. Always be aware of the limitations of the function. Obstacles such as vehicles, motorcycles, bicycles, pedestrians, or unspecified objects or structures such as guardrails, tollgate, etc., that may collide with a vehicle may not be detected.
- Highway Driving Assist will turn off automatically under the following situations:
  - Driving on roads that Highway Driving Assist does not operate, such as a rest area, intersection, junction, etc.
  - The navigation does not operate properly such as when the navigation is being updated or restarted
- Highway Driving Assist may inadvertently operate or turn off depending on road conditions (navigation information) and surroundings.
- Lane Following Assist function may be temporarily disabled when the front view camera cannot detect lanes properly or the hands-off warning is on.
- You may not hear the warning sound of Highway Driving Assist if the surroundings are noisy.
- If the vehicle is driven at high speed above a certain speed at a curve, your vehicle may drive to one side or may depart from the driving lane.
- When you are towing a trailer or another vehicle, turn off Highway Driving Assist.
- The hands–off warning message may appear early or late depending on how the steering wheel is held or road conditions. Always have your hands on the steering wheel while driving.
- For your safety, please read the owner's manual before using the Highway Driving Assist.
- Highway Driving Assist will not operate when the engine is started, or when the detecting sensors or navigation is being initialized.

Limitations of Highway Driving Assist

Highway Driving Assist may not operate normally, or may not operate under the following circumstances:

- The map information and the actual road is different because the navigation is not updated
- The map information and the actual road is different because of real-time GPS data or map information error
- The infotainment system is overloaded by simultaneously performing functions such as route search, video playback, voice recognition, etc.
- GPS signals are blocked in areas such as a tunnel
- The driver goes off course or the route to the destination is changed or canceled by resetting the navigation
- The vehicle enters a service station or rest area
- Android Auto or Car Play is operating
- The navigation cannot detect the current vehicle position (for example, elevated roads including overpass adjacent to general roads or nearby roads exist in a parallel way)

Information

For more details on the limitations of the front view camera, front radar, front corner radar and rear corner radar, refer to "Forward Collision-Avoidance Assist (FCA)" section in this chapter.

Information

This device complies with Part 15 of the FCC rules.

Operation is subject to the following three conditions:

1. **This device may not cause harmful interference, and**
2. **This device must accept any interference received, including interference that may cause undesired operation.**
3. **Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.**

Information

Radio frequency radiation exposure information:

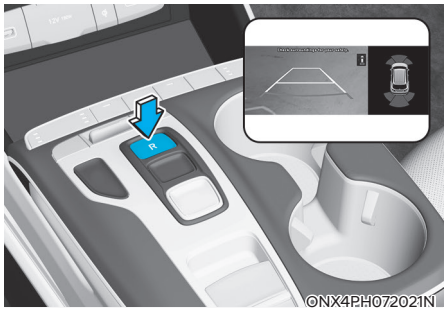
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance of 8 in. (20 cm) between the radiator (antenna) and your body.

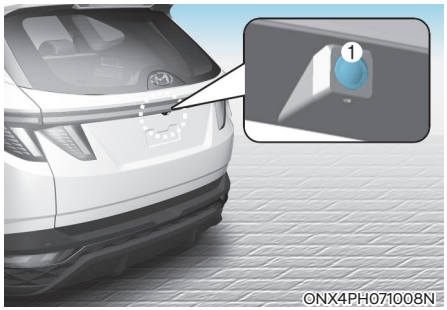
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

REAR VIEW MONITOR (RVM) (IF EQUIPPED)

Rear View Monitor displays the area behind your vehicle to help with safe parking or driving.



Detecting sensor

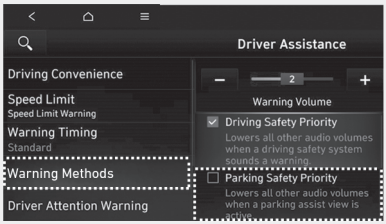


[1] : Wide-rear view camera

Refer to the picture above for the detailed location of the detecting sensor.

Rear View Monitor Settings

Warning Methods



ONX4E072197L

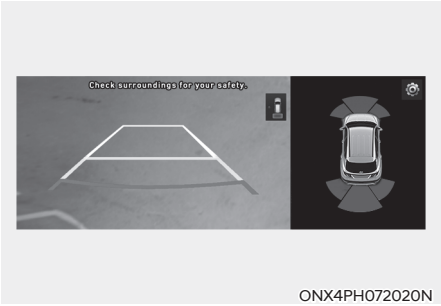
The Warning Methods can be set with the vehicle on. Select 'Setup →Vehicle → Driver Assistance → Warning Methods → Parking Safety Priority' in the infotainment system.

- **Parking Safety Priority**: Lowers all other audio volumes when Rear View Monitor is operating.

Information

- **If you change the Warning Methods, the Warning Methods of other Driver Assistance systems may change.**
- **If the vehicle is restarted, Warning Methods will maintain the last setting.**
- **The setting menu may not exist based on vehicle specification.**

Camera settings



ONX4PH072020N

To change the settings of Rear View Monitor's 'Display Contents' or 'Display Settings', press the setup icon (⚙) on the screen while Rear View Monitor is operating, or go to 'Setup → Vehicle → Driver Assistance → Parking Safety → Camera Settings' from the Settings menu in the infotainment system when the engine is on.

- If 'Display Contents' is selected, you can change settings for 'Extended Rear View Monitor' or 'Rear View Parking Guidance'.
- If 'Display Settings' is selected, you can change the screen's brightness and contrast.

Extended Rear View Monitor

If 'Extended Rear View Monitor' is selected, the rear view maintains on the screen when parking.

Rear View Parking Guidance

If 'Rear View Parking Guidance' is selected, the parking guideline appears when the rear view and rear top view is displayed.

Information

- **The rear view horizontal guideline shows the distance of about 1.6 ft. (0.5 m), 3.3 ft. (1 m) and 7.6 ft. (2.3 m) from the vehicle.**
- **The rear top view horizontal guideline shows the distance of about 1 ft. (0.3 m) and 4.9 ft. (1.5 m) from the vehicle.**

Rear View Monitor Operation

Operating button



ONX4070040

Parking/View button

Press the Parking/View button (1) to turn on Rear View Monitor.

Press the button again to turn off the function.

Rear view

The rear view appears on the screen when parking.

Turns on if:

- You shift the gear to R (Reverse).
- You press the Parking/View button (1) while the gear is in P (Park).

Turns off if:

- You press the Parking/View button (1) again while the gear is in P (Park) with the rear view on the screen.
- You shift the gear from R (Reverse) to P (Park)

Extended rear view function

The rear view maintains on the screen when parking.

Turns on if:

You shift the gear from R (Reverse) to N (Neutral) or D (Drive), and your vehicle speed is below 6 mph (10 km/h).

Turns off if:

- Your vehicle speed is above 6 mph (10 km/h).
- You shift the gear to P (Park).
- You press the Parking/View button (1).

Rear top view



Press the icon. The top view appears on the screen and the distance from the vehicle appears in the back of your vehicle.

Information

- **The rear view cannot be turned off when the gear is in R (Reverse).**
- **When the Rear View Monitor is turned on, the last displayed view mode appears on the screen. If the gear is in R (Reverse), the rear view appears on the screen.**

Rear View Monitor Malfunction and Limitations

Rear View Monitor malfunction

When Rear View Monitor is not working properly, or the screen flickers, or the camera image does not display normally, have the vehicle inspected by an authorized HYUNDAI dealer.

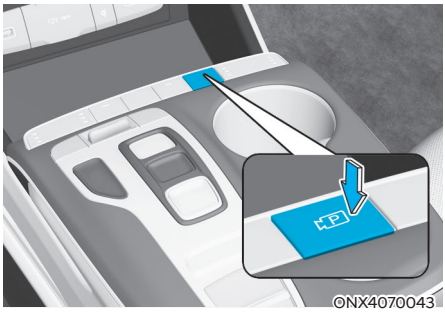
Limitations of Rear View Monitor

When the vehicle is stopped for a long time in winter or when the vehicle is parked in an indoor parking lot, the exhaust fumes may temporarily blur the image.

WARNING

- **Always turn your head to check blind spots. The rear view camera does not cover the entire area behind your vehicle.**
- **The perceived distance on the screen may differ from the actual distance.**
- **Always keep the rear view camera lens clean. If the lens is blocked or covered, the Rear View Monitor may not operate normally. Do not clean with strong chemicals containing high alkaline or volatile organic solvents (e.g. gasoline, acetone)**

SURROUND VIEW MONITOR (SVM) (IF EQUIPPED)

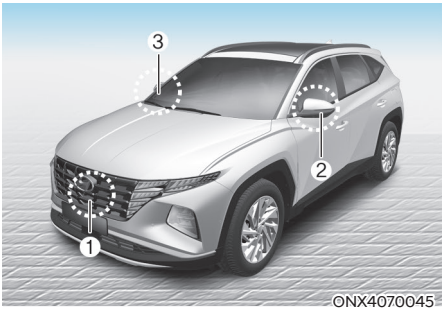




Surround View Monitor uses the wide view cameras and displays images around your vehicle through the infotainment system screen to help with safe parking or driving.

- Parking Assist View provides various view modes of your vehicle's surroundings.

Detecting sensor



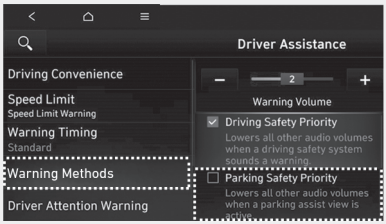


[1] : Wide-front view camera,
[2],[3] : Wide-side view camera
(under the side view mirror),
[4] : Wide-rear view camera

Refer to the picture above for the detailed location of the detecting sensors.

Surround View Monitor Settings

Warning Methods



ONX4E072197L

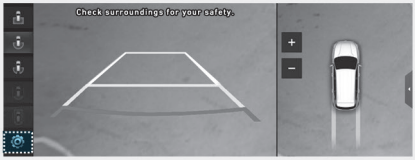
The Warning Methods can be set with the vehicle on. Select 'Setup → Vehicle → Driver Assistance → Warning Methods → Parking Safety Priority' in the infotainment system.

- **Parking Safety Priority**: Lowers all other audio volumes when Surround View Monitor is operating.

Information

- **If you change the Warning Methods, the Warning Methods of other Driver Assistance systems may change.**
- **If the vehicle is restarted, Warning Methods will maintain the last setting.**
- **The setting menu may not exist based on vehicle specification.**

Camera settings



ONX4PH072023N

To change the settings of Surround View Monitor's 'Display Contents' or 'Display Settings', press the setup icon (⚙) on the screen while Rear View Monitor is operating, or go to 'Setup → Vehicle → Driver Assistance → Parking Safety → Camera Settings' from the Settings menu in the infotainment system when the engine is on.

- If 'Display Contents' is selected, you can change settings for 'Top View Parking Guidance' or 'Rear View Parking Guidance'.
- If 'Display Settings' is selected, you can change the screen's brightness and contrast.

Top View Parking Guidance



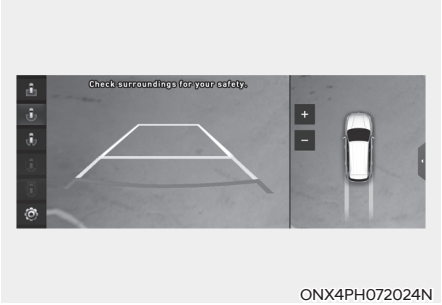


If 'Top View Parking Guidance' is selected, the parking guideline appears on the right side of the Surround View Monitor screen when the front top view and rear top view is displayed.

Information

The rear top view horizontal guideline shows the liftgate opening distance of about 6.6 ft. (2 m) from the vehicle .

Rear View Parking Guidance

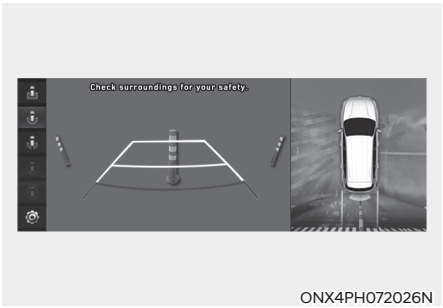


If 'Rear View Parking Guidance' is selected, the parking guideline appears on the right side of the Surround View Monitor screen when the rear view isdisplayed.

Information

The rear view horizontal guideline shows the distance of about 1.6 ft. (0.5 m), 3.3 ft. (1 m) and 7.6 ft. (2.3 m) from the vehicle.

Parking Distance Warning



ONX4PH072026N

- With the ignition switch ON, go to ‘Setup → Vehicle → Driver Assistance → Parking Safety → Parking Distance Warning Auto On’ (for infotainment system type) from the Settings menu to use the function.

  If ‘Parking Distance Warning Auto On’ is selected, the parking distance warning appears on the right side of the Surround View Monitor screen.
- The warning appears only when Parking Distance Warning is on.

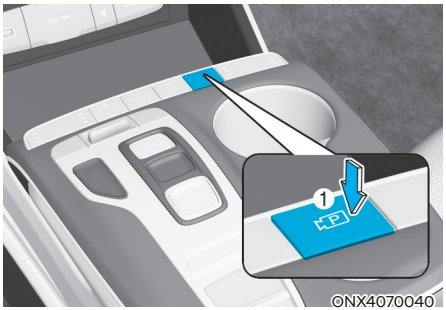
Surround View Monitor Auto On

With the ignition switch ON, go to ‘Setup → Vehicle → Driver Assistance → Parking Safety → Surround View Monitor Auto On’ (for infotainment system type) from the Settings menu to use the function.

If ‘Surround View Monitor Auto On’ is selected, the front parking assist view screen appears when the Parking Distance Warning warns you while driving in D (Drive).

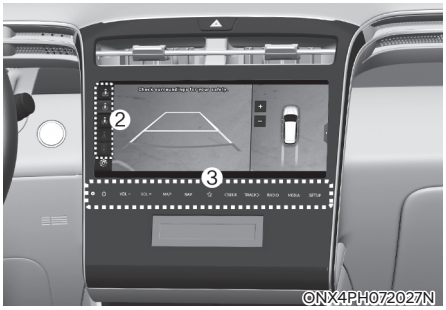
Surround View Monitor Operation

Parking/View button



ONX4070040

Press the Parking/View button (1) to turnon Surround View Monitor. Press the button again to turn off the function.



ONX4PH072027N

Front view

The front view appears on the screen when the gear is in N (Neutral) or D (Drive) to assist parking. The front view has top view, front view, and side view.

View modes can be selected by pressing the view buttons (2) on the Surround View Monitor screen.

Turns on if:

- You shift the gear from R (Reverse) to N (Neutral) or D (Drive), and your vehicle speed is below 6 mph (10 km/h).
- You press the Parking/View button (1) when the gear is in N (Neutral) or D (Drive) and your vehicle speed is below 6 mph (10 km/h).
- The Parking Distance Warning warns you while driving in D (Drive).

(**Surround View Monitor Auto On** must be selected from the Settings menu.).

Information

When the front view is turned on, the last view mode appears.

Turns off if:

- You press the Parking/View button (1) or the infotainment system buttons (3)
- Your vehicle speed is above 6 mph (10 km/h).
- You shift the gear to P (Park).

Information

Surround View Monitor turns off if your vehicle speed is greater than 6 mph (10 km/h). Although you slow down to less than 6 mph (10 km/h) again, Surround View Monitor does not turn on again.

Rear view

The rear view appears on the screen when the gear is in R (Reverse) or P (Park) to assist parking. The rear view has top view, front view, and side view. View modes can be selected by pressing the view buttons (2) on the Surround View Monitor screen.

Turns on if:

- You shift the gear to R (Reverse).
- You press the Parking/View button (1) while the gear is in P (Park).

Turns off if:

- You press the Parking/View button (1) again while the gear is in P (Park).
- You shift the gear from R (Reverse) to P (Park).

Information

The rear view cannot be turned off when the gear is in R (Reverse) even if the infotainment system buttons (1) are pressed.

Surround View Monitor Malfunction and Limitations

Surround View Monitor malfunction

When Surround View Monitor is not working properly, or the screen flickers, or the camera image does not display normally, have the vehicle inspected by an authorized HYUNDAI dealer.

Limitations of Surround View Monitor

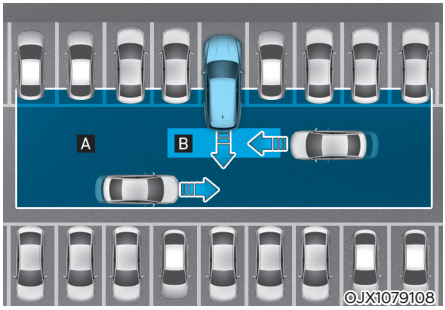
- When your vehicle is stopped for a long time in winter or when your vehicle is parked in an indoor parking lot, the exhaust fumes may temporarily blur the image.
- The screen may not display the surround view properly and an icon may appear at the top left of the screen if:
  - The liftgate is opened.
  - The driver or front passenger door is opened.
  - The side view mirror is folded.

WARNING

- **Always look around your vehicle to make sure there are no objects or obstacles before driving.**
- **The perceived distance on the screen may differ from the actual distance.**
- **Surround View Monitor is designed to be used on a flat surface. When your vehicle is used on roads with different heights such as curbs and speed bumps, the image on the screen may not look correct.**
- **Always keep the camera lens clean. If the lens is blocked or covered, the Surround View Monitor may not operate normally. Do not clean with strong chemicals containing high alkaline or volatile organic solvents (gasoline, acetone etc.).**

REAR CROSS-TRAFFIC COLLISION-AVOIDANCE ASSIST (RCCA) (IF EQUIPPED)

Rear Cross-Traffic Collision-Avoidance Assist detects vehicles approaching from the rear left or right while your vehicle is reversing and warns you of a possible collision with a warning message and a warning sound. Also, Rear Cross-Traffic Collision-Avoidance Assist may assist with braking your vehicle to help avoid a collision.



[A] : Rear Cross-Traffic Collision Warning operating range,
[B] : Rear Cross-Traffic Collision-Avoidance Assist operating range

CAUTION

The time of warning may vary depending on the speed of the approaching vehicle.

Detecting sensor



[1] : Rear corner radar

Refer to the picture above for the detailed location of the detecting sensors.

Information

For more details on the precautions of the rear corner radar, refer to “Blind-Spot Collision-Avoidance Assist (BCA)” section in this chapter.

Rear Cross-Traffic Collision-Avoidance Assist Settings

Setting features



OTM070194N

Rear Cross-Traffic Safety

With the engine on, select 'Driver Assistance → Parking Safety → Rear Cross-Traffic Safety' from the Settings menu to turn on Rear Cross-Traffic Collision-Avoidance Assist and deselect to turn off the function.

WARNING

When the engine is restarted, Rear Cross-Traffic Collision-Avoidance Assist will always turn on. However, if 'Off' is selected after the engine is restarted, the driver should always be aware of the surroundings and drive safely.



OTM070140N

Warning Timing

With the ignition switch ON, go to 'User Settings → Driver Assistance → Warning Timing' (for cluster type) or 'Setup → Vehicle → Driver Assistance → Warning Timing' (for infotainment system type) from the Settings menu to change the initial warning activation time. Warning Timing is set to 'Normal' at the factory.

WARNING

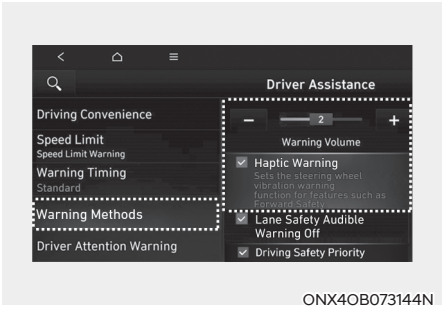
- **Even though 'Normal' is selected for Warning Timing if the vehicle ahead of you suddenly stops, the initial warning activation time may seem late.**
- **Select 'Late' for Warning Timing when traffic is light and your vehicle speed is slow.**

Information

When the engine is restarted, the Warning Timing maintains its last setting.



ONX4OB073097N



ONX4OB073144N

Warning Methods

The Warning Methods can be set with the vehicle on. Select 'User Settings → Driver Assistance → Warning Methods' from the settings menu in the instrument cluster or 'Setup → Vehicle → Driver Assistance → Warning Methods' from the settings menu in the infotainment system to change the following settings.

- **Warning Volume**: Adjusts the volume of the warning sound.

  Even if you set the warning volume to 'Off' or '0', the warning sound will sound at the volume set to 'Low' or '1'. (if equipped)
- **Haptic Warning**: Activate the steering wheel vibration warning. (if equipped)

Information

- **If you change the Warning Methods, it can be applied to each function of the driver assistance system. Please check and change it in each function.**
- **If the vehicle is restarted, Warning Methods will maintain the last setting.**
- **The setting menu may not exist based on vehicle specification.**
- **If you turn off the haptic warning when the warning volume is 'Off' or '0', the warning volume will turn on and will be set to 'Medium' or '2'.**
- **If you set the warning volume to 'Off' or '0' when the haptic warning is off, the haptic warning will turn on.**

Rear Cross-Traffic Collision-Avoidance Assist Operation

Warning and control

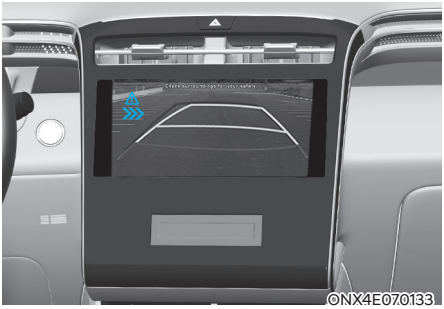
Rear Cross-Traffic Collision-Avoidance Assist will warn and control the vehicle depending on collision risk level: 'Collision Warning', 'Emergency Braking' and 'Stopping vehicle and ending brake control'.



OPDEN060039



ONX4070055



ONX4E070133

Collision Warning

- To warn the driver of an approaching vehicle from the rear left/right side of your vehicle, the warning light on the side view mirror will blink and a warning will appear on the cluster. At the same time, an audible warning will sound. If Rear View Monitor is operating, a warning will also appear on the infotainment system screen.
- Rear Cross-Traffic Collision-Avoidance Assist will operate when all the following conditions are satisfied:
  - The gear is shifted to R (Reverse)
  - Vehicle speed is below 5 mph (8 km/h)
  - The approaching vehicle is within approximately 82 ft. (25 m) from the left and right side of your vehicle
  - The speed of the vehicle approaching from the left and right is above 3 mph (5 km/h)

Information

If the operating conditions are satisfied, there will be a warning whenever the vehicle approaches from the left or right side even though your vehicle speed is 0 mph (0 km/h).

Information

The images and colors in the cluster may differ depending on the cluster type or theme selected from the cluster.



OPDEN060039



ONX4E070057



ONX4E070133

Emergency Braking

- To warn the driver of an approaching vehicle from the rear left/right side of your vehicle, the warning light on the side view mirror will blink and, the 'Emergency Braking' warning message will appear on the cluster. At the same time, an audible warning will sound. If Rear View Monitor is operating, a warning will also appear on the infotainment system screen.
- Rear Cross-Traffic Collision-Avoidance Assist will operate when all the following conditions are satisfied:
  - The gear is shifted to R (Reverse)
  - Vehicle speed is below 5 mph (8 km/h)
  - The approaching vehicle is within approximately 5 ft (1.5 m) from the left and right side of your vehicle
  - The speed of the vehicle approaching from the left and right is above 3 mph (5 km/h)
- Emergency Braking will be assisted to help prevent collision with approaching vehicles from the left and right.

WARNING

Brake control ends when the conditions of the approaching vehicle from the rear left or right side are as below:

- **The approaching vehicle is out of the detecting range**
- **The approaching vehicle passes behind your vehicle**
- **The approaching vehicle does not drive toward your vehicle**
- **The approaching vehicle speed slows down**
- **The driver depresses the brake pedal with sufficient power**



ONX4E070058

Stopping vehicle and ending brake control

- When the vehicle is stopped due to emergency braking, the 'Drive carefully' warning message will appear on the cluster.
- For your safety, the driver should depress the brake pedal immediately and check the surroundings.
- Brake control will end after the vehicle is stopped by emergency braking for approximately 2 seconds.
- During emergency braking, braking control by Rear Cross-Traffic Collision-Avoidance Assist will automatically cancel when the driver excessively depresses the brake pedal.

WARNING

Take the following precautions when using Rear Cross-Traffic Collision-Avoidance Assist :

- **For your safety, only change the Settings after parking the vehicle at a safe location.**
- **If any other system's warning message is displayed or audible warning is generated, Rear Cross-Traffic Collision-Avoidance Assist warning message may not be displayed and audible warning may not be generated.**
- **You may not hear the warning sound of Rear Cross-Traffic Collision-Avoidance Assist if the surroundings are noisy.**
- **Rear Cross-Traffic Collision-Avoidance Assist may not operate if the driver applies the brake pedal to avoid collision.**
- **During Rear Cross-Traffic Collision-Avoidance Assist operation, the vehicle may stop suddenly injuring passengers and shifting loose objects. Always have the seat belt on and keep loose objects secured.**
- **Even if there is a problem with Rear Cross-Traffic Collision-Avoidance Assist, the vehicle's basic braking performance will operate normally.**
- **When Rear Cross-Traffic Collision-Avoidance Assist is operating, braking control by the function will automatically cancel when the driver excessively depresses the accelerator pedal.**
- **Rear Cross-Traffic Collision-Avoidance Assist does not operate in all situations and cannot avoid all collisions.**
- **Rear Cross-Traffic Collision-Avoidance Assist may warn the driver late and may not warn the driver depending on the road and driving conditions.**

- **The driver has the responsibility to control the vehicle. Do not solely depend on Rear Cross-Traffic Collision-Avoidance Assist. Rather, maintain a safe braking distance, and if necessary, depress the brake pedal to reduce driving speed or to stop the vehicle.**
- **Never deliberately operate Rear Cross-Traffic Collision-Avoidance Assist on people, animal, objects, etc. It may cause serious injury or death.**

CAUTION

The brake control may not operate properly depending on the status of ESC (Electronic Stability Control).

There will only be a warning when:

- **The ESC (Electronic Stability Control) warning light is on**
- **ESC (Electronic Stability Control) is engaged in a different function**

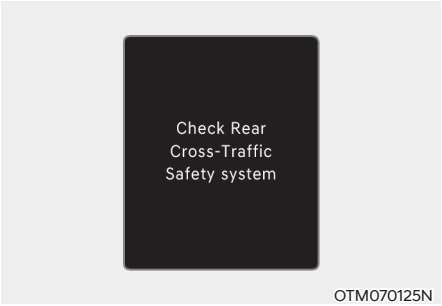
Information

If braking is assisted by Rear Cross-Traffic Collision-Avoidance Assist, the driver must immediately depress the brake pedal and check vehicle surroundings.

- **Brake control will end when the driver depresses the brake pedal with sufficient power.**
- **After shifting the gear to R (Reverse), braking control will operate once for left and right vehicle approach.**

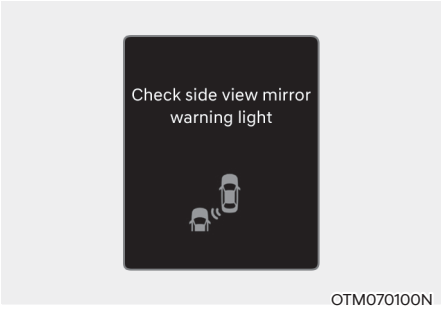
Rear Cross-Traffic Collision-Avoidance Assist Malfunction and Limitations

Rear Cross-Traffic Collision-Avoidance Assist malfunction



OTM070125N

When Rear Cross-Traffic Collision-Avoidance Assist is not working properly, the 'Check rear cross-traffic safety system' warning message will appear on the cluster for several seconds, and the master (⚠) warning light will illuminate on the cluster. If the master warning light illuminates, have the vehicle inspected by an authorized HYUNDAI dealer.



OTM070100N

When the side view mirror warning light is not working properly, the ‘Check side view mirror warning light’ warning message will appear on the cluster for several seconds, and the master (⚠) warning light will illuminate on the cluster. If the master warning light illuminates, have the vehicle inspected by an authorized HYUNDAI dealer.

Rear Cross-Traffic Collision-Avoidance Assist disabled



OTM070124N

When the rear bumper around the rear-side radar or sensor is covered with foreign material, such as snow or rain, or installing a trailer or carrier, it can reduce the detecting performance and temporarily limit or disable Rear Cross-Traffic Collision-Avoidance Assist.

If this occurs, the 'Rear Cross-Traffic Safety system disabled. Radar blocked' warning message will appear on the cluster.

Rear Cross-Traffic Collision-Avoidance Assist will operate normally when such foreign material or trailer, etc. is removed.

If Rear Cross-Traffic Collision-Avoidance Assist does not operate normally after it is removed, have the vehicle inspected by an authorized HYUNDAI dealer.

WARNING

- **Even though the warning message does not appear on the cluster, Rear Cross-Traffic Collision-Avoidance Assist may not operate properly.**
- **Rear Cross-Traffic Collision-Avoidance Assist may not operate properly in an area (for example: open terrain), where any substance are not detected after turning ON the engine.**

CAUTION

Turn off Rear Cross-Traffic Collision-Avoidance Assist to install a trailer, carrier, etc., or remove the trailer, carrier, etc. to use Rear Cross-Traffic Collision-Avoidance Assist.

Limitations of Rear Cross-Traffic Collision-Avoidance Assist

Rear Cross-Traffic Collision-Avoidance Assist may not operate normally, or it may operate unexpectedly under the following circumstances:

- Departing from where trees or grass are overgrown
- Departing from where roads are wet
- Speed of the approaching vehicle is fast or slow

Braking control may not work, driver's attention is required in the following circumstances:

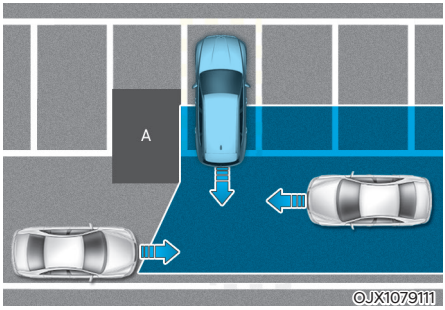
- The vehicle severely vibrates while driving over a bumpy road, uneven road or concrete patch
- Driving on a slippery surface due to snow, water puddle, ice, etc.
- The tire pressure is low or a tire is damaged
- The brake is modified
- Remote Smart Parking Assist is operating (if equipped)

Information

For more details on the limitations of the rear corner radar, refer to "Blind-Spot Collision-Avoidance Assist (BCA)" section in this chapter.

WARNING

- **Driving near a vehicle or structure**

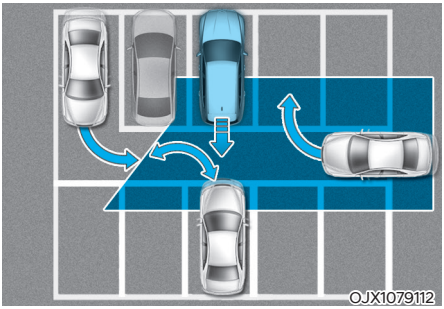


[A] : Structure

Rear Cross-Traffic Collision-Avoidance Assist may be limited when driving near a vehicle or structure, and may not detect the vehicle approaching from the left or right. If this occurs, the function may not warn the driver or control the brakes when necessary.

Always check your surroundings while backing up.

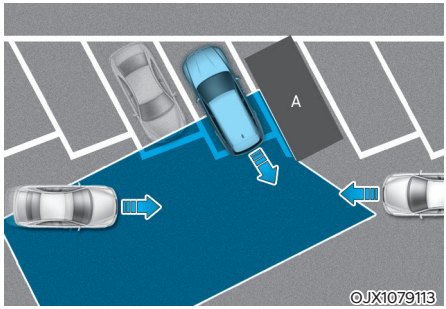
- **When the vehicle is in a complex parking environment**



Rear Cross-Traffic Collision-Avoidance Assist may detect vehicles which are parking or pulling out near your vehicle (for example: a vehicle leaving beside your vehicle, a vehicle parking or pulling out in the rear area, a vehicle approaching your vehicle making a turn, etc.). If this occurs, the function may unnecessarily warn the driver and control the brake.

Always check your surroundings while backing up.

- **When the vehicle is parked diagonally**

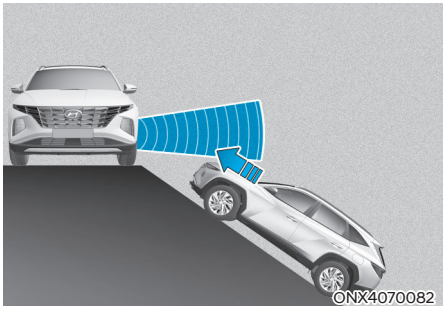


[A] : Vehicle

Rear Cross-Traffic Collision-Avoidance Assist may be limited when backing up diagonally, and may not detect the vehicle approaching from the left or right. If this occurs, the function may not warn the driver or control the brakes when necessary.

Always check your surroundings while backing up.

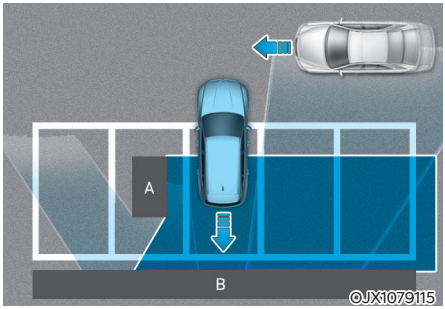
- **When the vehicle is on or near a slope**



Rear Cross-Traffic Collision-Avoidance Assist may be limited when the vehicle is on a uphill or downhill slope, or near it, and may not detect the vehicle approaching from the left or right. If this occurs, the function may not warn the driver or control the brakes when necessary.

Always check your surroundings while backing up.

- **Pulling into the parking space where there is a structure**

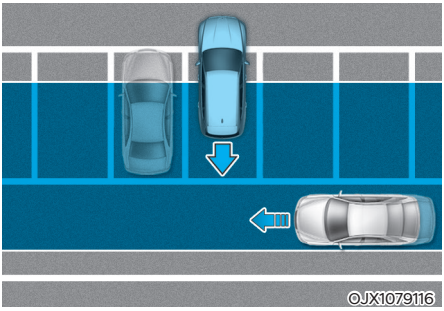


[A] : Structure, [B] :Wall

Rear Cross-Traffic Collision-Avoidance Assist may detect vehicles passing by in front of you when parking in reverse into a parking space with a wall or structure in the rear or side area. If this occurs, the function may unnecessarily warn the driver and control the brake.

Always check your surroundings while backing up.

- **When the vehicle is parked rearward**



Rear Cross-Traffic Collision-Avoidance Assist may detect vehicles passing by behind you when parking in reverse into a parking space. If this occurs, the function may unnecessarily warn the driver and control the brake.

Always check your surroundings while backing up.

WARNING

- **When you are towing a trailer or another vehicle, have Rear Cross-Traffic Collision-Avoidance Assist turned off due to safety reasons.**
- **Rear Cross-Traffic Collision-Avoidance Assist may not operate normally if interfered by strong electromagnetic waves.**
- **Rear Cross-Traffic Collision-Avoidance Assist may not operate for 3 seconds after the vehicle is started, or the rear corner radars are initialized.**

Information

This device complies with Part 15 of the FCC rules.

Operation is subject to the following three conditions:

1. **This device may not cause harmful interference, and**
2. **This device must accept any interference received, including interference that may cause undesired operation.**
3. **Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.**

Information

Radio frequency radiation exposure information:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

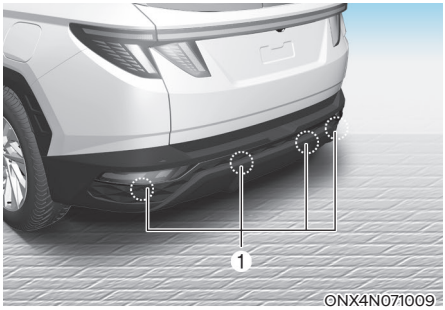
This equipment should be installed and operated with minimum distance of 8 in. (20 cm) between the radiator (antenna) and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

REVERSE PARKING DISTANCE WARNING (PDW) (IF EQUIPPED)

Reverse Parking Distance Warning will help warn the driver if an obstacle is detected within a certain distance when the vehicle is moving in reverse at low speeds.

Detecting sensor



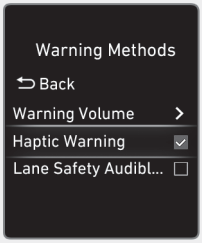
ONX4N071009

[1] : Rear ultrasonic sensors

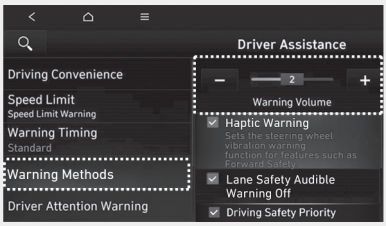
Refer to the picture above for the detailed location of the detecting sensors.

Reverse Parking Distance Warning Settings

Setting features



ONX4OB073097N



ONX4OB073143N

Warning Methods

The Warning Methods can be set with the vehicle on. Select 'User Settings → Driver Assistance → Warning Methods' from the settings menu in the instrument cluster or 'Setup → Vehicle → Driver Assistance → Warning Methods' from the settings menu in the infotainment system to change the following settings.

- **Warning Volume**: Adjusts the volume of the warning sound.

  Even if you set the warning volume to 'Off' or '0', the warning sound will sound at the volume set to 'Low' or '1'. (if equipped)

Information

- **If you change the Warning Methods, it can be applied to each function of the driver assistance system. Please check and change it in each function.**
- **If the vehicle is restarted, Warning Methods will maintain the last setting.**
- **The setting menu may not exist based on vehicle specification.**

Reverse Parking Distance Warning Operation

Operating button

Parking Distance Warning Off button

- Press the Parking Distance Warning Off (P OFF) button to turn on Reverse Parking Distance Warning. Press the button again to turn off → on the function.
- When Reverse Parking Distance Warning is off (button indicator light off → on), if you shift the gear to R (Reverse), Reverse Parking Distance Warning will automatically turn on.

Reverse Parking Distance Warning

- Reverse Parking Distance Warning will operate when the gear is in R (Reverse).
- Reverse Parking Distance Warning helps detect a person, animal or object in the rear when the vehicle's rearward speed is below 6 mph (10 km/h).

Distance from object	Warning indicator when driving backward	Warning sound
24~48 in. (60~120cm)		Buzzer beeps intermittently
12~24 in. (30~60cm)		Beeps more frequently
within 12 in. (30cm)		Beeps continuously

- The corresponding indicator will illuminate whenever each ultrasonic senor detects a person, animal or object in its sensing range. Also an audible warning will sound.
- When more than two objects are detected at the same time, the closest one will be warned with an audible warning.
- The shape of the indicator in the illustration may differ from the actual vehicle.

Reverse Parking Distance Warning Malfunction and Precautions

Reverse Parking Distance Warning malfunction

After starting the engine, a beep will sound when the gear is shifted to R (Reverse) to indicate Reverse Parking Distance Warning is operating normally.

However, if one or more of the following occurs, first check whether the ultrasonic sensor is damaged blocked with foreign material. If it still does not work properly, have the vehicle inspected by an authorized HYUNDAI dealer.

- The audible warning does not sound.
- The buzzer sounds intermittently.
- The 'Parking sensor error or blockage' warning message appears on the cluster.



ONX4E070101

WARNING

- **Reverse Parking Distance Warning is a supplemental function. The operation of Reverse Parking Distance Warning can be affected by several factors (including environmental conditions). It is the responsibility of the driver to always check the rear view before and while parking.**
- **Your new vehicle warranty does not cover any accidents or damage to the vehicle due to the malfunction of Reverse Parking Distance Warning.**
- **Pay close attention when driving near objects, pedestrians, and especially children. Some objects may not be detected by the ultrasonic sensors, due to the objects distance, size or material, all of which can limit the effectiveness of the sensor.**

Limitations of Reverse Parking Distance Warning

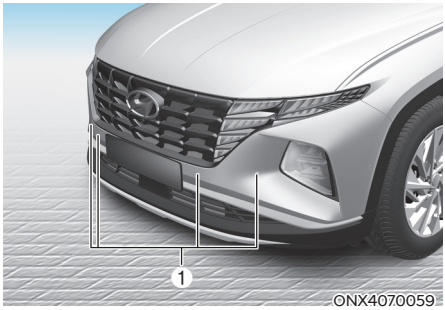
- Reverse Parking Distance Warning may not operate normally when:
  - Moisture is frozen to the sensor
  - Sensor is covered with foreign material, such as snow or water (Reverse Parking Distance Warning will operate normally when such foreign material are removed.)
  - The weather is extremely hot or cold
  - The sensor or sensor assembly is disassembled
  - The surface of the sensor is pressed hard or an impact is applied with a hard object
  - The surface of the sensor is scratched with a sharp object
  - The sensors or its surrounding area is directly sprayed with high pressure washer

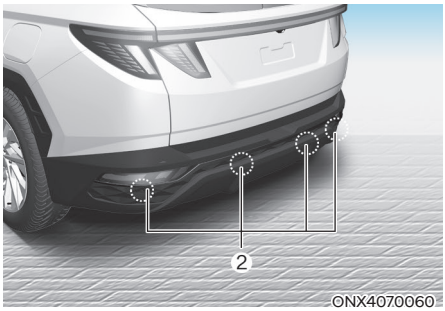
- Reverse Parking Distance Warning may malfunction when:
  - Heavy rain or water spray is present
  - Water flows on the surface of the sensor
  - Affected by another vehicle's sensors
  - The sensor is covered with snow
  - Driving on uneven road, gravel roads or bushes
  - Objects that generates ultrasonic waves are near the sensor
  - Installing the license plate differently from the original location
  - The vehicle bumper height or ultrasonic sensor installation has been modified
  - Attaching equipments or accessories around the ultrasonic sensors
- The following objects may not be detected:
  - Sharp or slim objects, such as ropes, chains or small poles.
  - Objects, which tend to absorb sensor frequency, such as clothes, spongy material or snow.
  - Objects smaller than 40 in. (100 cm) in length and narrower than 6 in. (14 cm) in diameter.
  - Pedestrians, animals or objects that are very close to the ultrasonic sensors
- Parking Distance Warning Indicators may be displayed differently from the actual detected location when the obstacle is located between the sensors.
- Parking Distance Warning indicator may not occur sequentially depending on vehicle speed or obstacle shape.
- If Reverse Parking Distance Warning needs repair, have the vehicle inspected by an authorized HYUNDAI dealer.

FORWARD/REVERSE PARKING DISTANCE WARNING (PDW) (IF EQUIPPED)

Forward/Reverse Parking Distance Warning will help warn the driver if an obstacle is detected within a certain distance when the vehicle is moving forward or in reverse at low speeds.

Detecting sensor





[1] : Front ultrasonic sensors,
[2] : Rear ultrasonic sensors

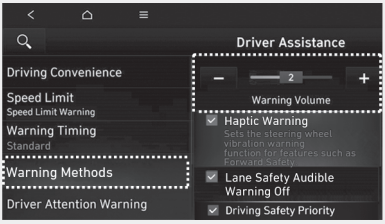
Refer to the picture above for the detailed location of the detecting sensors.

Forward/Reverse Parking Distance Warning Settings

Setting features



ONX4OB073097N



ONX4OB073143N

Warning Methods

The Warning Methods can be set with the vehicle on. Select 'User Settings → Driver Assistance → Warning Methods' from the settings menu in the instrument cluster or 'Setup → Vehicle → Driver Assistance → Warning Methods' from the settings menu in the infotainment system to change the following settings.

- **Warning Volume**: Adjusts the volume of the warning sound.

  Even if you set the warning volume to 'Off' or '0', the warning sound will sound at the volume set to 'Low' or '1'. (if equipped)

Information

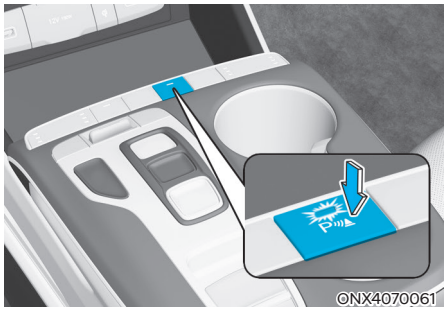
- **If you change the Warning Methods, it can be applied to each function of the driver assistance system. Please check and change it in each function.**
- **If the vehicle is restarted, Warning Methods will maintain the last setting.**
- **The setting menu may not exist based on vehicle specification.**

Parking Distance Warning Auto On

To use Parking Distance Warning Auto On function, select 'Driver Assistance → Parking Safety → Parking Distance Warning Auto On' from the cluster or infotainment system Settings menu.

Forward/Reverse Parking Distance Warning Operation

Operating button



Parking Safety button

- Press the Parking Safety (P) button to turn on Forward/Reverse Parking Distance Warning. Press the button again to turn off the function.
- When Forward/Reverse Parking Distance Warning is off (button indicator light off), if you shift the gear to R (Reverse), Forward/Reverse Parking Distance Warning will automatically turn on.
- When Forward/Reverse Parking Distance Warning turns on, the button indicator light will turn on. If vehicle speed is above 18 mph (30 km/h), Forward/Reverse Parking Distance Warning will turn off (button indicator light off).

Forward Parking Distance Warning

- Forward Parking Distance Warning will operate when one of the condition is satisfied.
  - The gear is shifted from R (Reverse) to D (Drive) with Reverse Parking Distance Warning on
  - The gear is in D (Drive) and the Parking Safety button indicator light is on
  - 'Parking Distance Warning Auto On' is selected from the Settings menu and the gear is in D (Drive)
- Forward Parking Distance Warning helps detect a person, animal or object in front when the vehicle's forward speed is below 6 mph (10 km/h).
- Forward Parking Distance Warning does not operate when the vehicle's forward speed is above 6 mph (10 km/h) even when the Parking Safety button indicator is on. Forward Parking Distance Warning will operate again when the vehicle's forward speed decreases below 18 mph (30 km/h) → 6 mph (10 km/h) while the Parking Safety button indicator is on.
- When 'Parking Distance Warning Auto On' is selected, the Parking Safety button indicator light stays on.
- When 'Parking Distance Warning Auto On' is deselected, and the vehicle's forward speed is above 18 mph (30 km/h), the Parking Safety button indicator will turn off. Although you drive below 6 mph (10 km/h), Forward Parking Distance Warning will not turn on.

Distance from object	Warning indicator when driving backward	Warning sound
24~40 in. (60~100cm)		Buzzer beeps intermittently
12~24 in. (30~60cm)		Beeps more frequently
within 12 in. (30cm)		Beeps continuously

- The corresponding indicator will illuminate whenever each ultrasonic senor detects a person, animal or object in its sensing range. Also an audible warning will sound.
- When more than two objects are detected at the same time, the closest one will be warned with an audible warning.
- The shape of the indicator in the illustration may differ from the actual vehicle.

Reverse Parking Distance Warning

- Reverse Parking Distance Warning will operate when the gear is in R (Reverse).
- Reverse Parking Distance Warning helps detect a person, animal or object in the rear when the vehicle's rearward speed is below 6 mph (10 km/h).
- When the vehicle's rearward speed is below 6 mph (10 km/h), both the front and rear ultrasonic sensors will help detect objects. However, the front ultrasonic sensors can help detect a person, animal or object when it is within 24 in. (60 cm) from the sensors.

Distance from object	Warning indicator when driving backward	Warning sound
24~48 in. (60~120cm)		Buzzer beeps intermittently
12~24 in. (30~60cm)		Beeps more frequently
within 12 in. (30cm)		Beeps continuously

- The corresponding indicator will illuminate whenever each ultrasonic senor detects a person, animal or object in its sensing range. Also an audible warning will sound.
- When more than two objects are detected at the same time, the closest one will be warned with an audible warning.
- The shape of the indicator in the illustration may differ from the actual vehicle.

Forward/Reverse Parking Distance Warning Malfunction and Precautions

Forward/Reverse Parking Distance Warning malfunction

After starting the engine, a beep will sound when the gear is shifted to R (Reverse) to indicate Forward/Reverse Parking Distance Warning is operating normally.

However, if one or more of the following occurs, first check whether the ultrasonic sensor is damaged or blocked with foreign material. If it still does not work properly, have the vehicle inspected by an authorized HYUNDAI dealer.

- The audible warning does not sound.
- The buzzer sounds intermittently.
- The 'Parking sensor error or blockage' warning message appears on the cluster.



ONX4E070062

WARNING

- **Forward/Reverse Parking Distance Warning is a supplemental function. The operation of Forward/Reverse Parking Distance Warning can be affected by several factors (including environmental conditions). It is the responsibility of the driver to always check the front and rear views before and while parking.**
- **Your new vehicle warranty does not cover any accidents or damage to the vehicle due to the malfunction of Forward/Reverse Parking Distance Warning.**
- **Pay close attention when driving near objects, pedestrians, and especially children. Some objects may not be detected by the ultrasonic sensors, due to the objects distance, size or material, all of which can limit the effectiveness of the sensor.**

Limitations of Forward/Reverse Parking Distance Warning

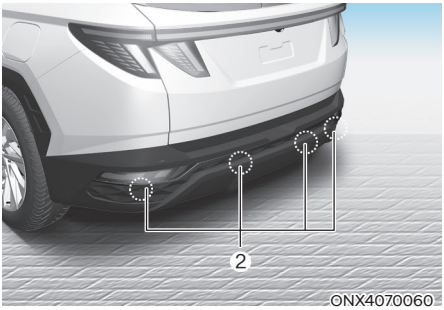
- Forward/Reverse Parking Distance Warning may not operate normally when:
  - Moisture is frozen to the sensor
  - Sensor is covered with foreign material, such as snow or water (Forward/Reverse Parking Distance Warning will operate normally when such foreign material are removed.)
  - The weather is extremely hot or cold
  - The sensor or sensor assembly is disassembled
  - The surface of the sensor is pressed hard or an impact is applied with a hard object
  - The surface of the sensor is scratched with a sharp object
  - The sensors or its surrounding area is directly sprayed with high pressure washer
- Forward/Reverse Parking Distance Warning may malfunction when:
  - Heavy rain or water spray is present
  - Water flows on the surface of the sensor
  - Affected by another vehicle's sensors
  - The sensor is covered with snow
  - Driving on uneven road, gravel roads or bushes
  - Objects that generates ultrasonic waves are near the sensor
  - Installing the license plate differently from the original location
  - The vehicle bumper height or ultrasonic sensor installation has been modified
  - Attaching equipments or accessories around the ultrasonic sensors
- The following objects may not be detected:
  - Sharp or slim objects, such as ropes, chains or small poles.
  - Objects, which tend to absorb sensor frequency, such as clothes, spongy material or snow.
  - Objects smaller than 40 in. (100 cm) in length and narrower than 6 in. (14 cm) in diameter.
  - Pedestrians, animals or objects that are very close to the ultrasonic sensors
- Parking Distance Warning Indicators may be displayed differently from the actual detected location when the obstacle is located between the sensors.
- Parking Distance Warning indicator may not occur sequentially depending on vehicle speed or obstacle shape.
- If Forward/Reverse Parking Distance Warning needs repair, have the vehicle inspected by an authorized HYUNDAI dealer.

REVERSE PARKING COLLISION-AVOIDANCE ASSIST (PCA) (IF EQUIPPED)

Reverse Parking Collision-Avoidance Assist can warn the driver or assist with braking to help reduce the possibility of collision when a pedestrian or an object Is detected while driving at low speed.

Detecting sensor





[1] : Wide-rear view camera,
[2] : Rear ultrasonic sensors

Refer to the picture above for the detailed location of the detecting sensors.

Reverse Parking Collision-Avoidance Assist Settings

Setting features



OTM070231N

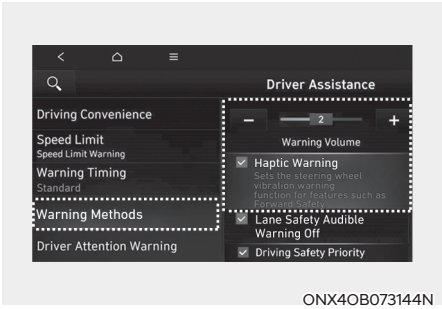
Parking safety

With the engine on, select or deselect 'Driver Assistance → Parking Safety' from the Settings menu to set whether or not to use each function.

- If 'Rear Active Assist' is selected, Reverse Parking Collision-Avoidance Assist will warn the driver and assist with braking when a collision with a pedestrian or an object is imminent.
- If 'Rear warning only' is selected, Reverse Parking Collision-Avoidance Assist will warn the driver when a collision with a pedestrian or an object is imminent. Braking will not be assisted.
- If 'Off' is selected, Reverse Parking Collision-Avoidance Assist will turn off.



ONX4OB073097N



ONX4OB073144N

Warning Methods

The Warning Methods can be set with the vehicle on. Select 'User Settings → Driver Assistance → Warning Methods' from the settings menu in the instrument cluster or 'Setup → Vehicle → Driver Assistance → Warning Methods' from the settings menu in the infotainment system to change the following settings.

- **Warning Volume**: Adjusts the volume of the warning sound.

  Even if you set the warning volume to 'Off' or '0', the warning sound will sound at the volume set to 'Low' or '1'. (if equipped)
- **Haptic Warning**: Activate the steering wheel vibration warning. (if equipped)

Information

- **If you change the Warning Methods, it can be applied to each function of the driver assistance system. Please check and change it in each function.**
- **If the vehicle is restarted, Warning Methods will maintain the last setting.**
- **The setting menu may not exist based on vehicle specification.**
- **If you turn off the haptic warning when the warning volume is 'Off' or '0', the warning volume will turn on and will be set to 'Medium' or '2'.**
- **If you set the warning volume to 'Off' or '0' when the haptic warning is off, the haptic warning will turn on.**

Reverse Parking Collision-Avoidance Assist Operation

Operating conditions

If 'Rear Active Assist' or 'Rear Warning Only' is set from the Settings menu, Reverse Parking Collision-Avoidance Assist will be in the ready status when the following conditions are satisfied:

- The liftgate is closed
- The gear is shifted to R (Reverse)
- Vehicle speed is below 6 mph (10 km/h)
- Reverse Parking Collision-Avoidance Assist components such as the wide-rear view camera and the rear ultrasonic sensors are in normal conditions

When Reverse Parking Collision-Avoidance Assist activates, a line appears behind the vehicle image in the instrument cluster.

Reverse Parking Collision-Avoidance Assist operates only once after the gear is shifted to R (Reverse). To reactivate Reverse Parking Collision-Avoidance Assist, shift the gear from another gear to R (Reverse).



OTM070174

Rear Active Assist

- If Reverse Parking Collision-Avoidance Assist detects a risk of collision with a pedestrian or an object, Reverse Parking Collision-Avoidance Assist will warn the driver with an audible warning and warning message on the cluster. When Rear View Monitor is operating, a warning will appear on the infotainment system screen.
- If Reverse Parking Collision-Avoidance Assist detects an imminent collision with a pedestrian or an object behind the vehicle, Reverse Parking Collision-Avoidance Assist will assist you with braking. The driver needs to pay attention as the brake assist will end within 2 seconds. The driver must immediately depress the brake pedal and check vehicle surroundings.
- Brake control will end when:
  - The gear is shifted to P (Park) or D (Drive).
  - The driver depresses the brake pedal with sufficient power
  - Braking assist has last for approximately 2 seconds
- The warning will turn off when:
  - The driver shifts the gear to P (Park), N (Neutral), or D (Drive)

Rear Warning Only

- If Reverse Parking Collision-Avoidance Assist detects a risk of collision with a pedestrian or an object, Reverse Parking Collision-Avoidance Assist will warn the driver with an audible warning and warning message on the cluster. When Rear View Monitor is operating, a warning will appear on the infotainment system screen.
- If 'Rear Warning Only' is selected, braking will not be assisted.
- The warning will turn off when the gear is shifted to P (Park), N (Neutral) or D (Drive).

Reverse Parking Collision-Avoidance Assist Malfunction and Limitations

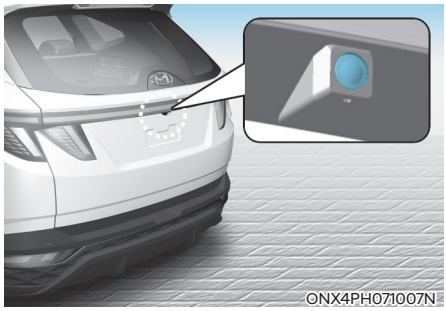
Reverse Parking Collision-Avoidance Assist malfunction



OTM070173L

When Reverse Parking Collision-Avoidance Assist or other related functions are not working properly, the 'Check Parking Safety system' warning message will appear on the cluster, and Reverse Parking Collision-Avoidance Assist will turn off automatically. Have the vehicle inspected by an authorized HYUNDAI dealer.

Reverse Parking Collision-Avoidance Assist disabled



ONX4PH071007N

The wide-rear view camera is used as a detecting sensor to help detect pedestrians. If the camera lens is covered with foreign material, such as snow or rain, it may adversely affect camera performance and Reverse Parking Collision-Avoidance Assist may not operate normally. Always keep the camera lens clean.



ONX4070065

The rear ultrasonic sensors are located inside the rear bumper to detect objects in the rear area. If the sensors are covered with foreign material, such as snow or rain, it may adversely affect sensor performance and Reverse Parking Collision-Avoidance Assist may not operate normally. Always keep the rear bumper clean.

■ Wide-rear view camera



OTM070219L

■ Rear ultrasonic sensor



OTM070176L

The 'Rear camera error or blockage' or 'Parking sensor error or blockage' warning message will appear on the cluster if the following situations occur:

- The wide-rear view camera or rear ultrasonic sensor(s) is covered with foreign material, such as snow or rain, etc.
- There is inclement weather, such as heavy snow, heavy rain, etc.

If this occurs, Reverse Parking Collision-Avoidance Assist may turn off or may not operate properly. Check whether the wide-rear view camera and rear ultrasonic sensors are clean.

Limitations of Reverse Parking Collision-Avoidance Assist

Reverse Parking Collision-Avoidance Assist may not assist braking or warn the driver even if there are pedestrians or objects under the following circumstances:

- Problems with vehicle
  - Any non-factory equipment or accessory is installed
  - Your vehicle is unstable due to an accident or other causes
  - Bumper height or rear ultrasonic sensor installation has been modified
  - Wide-rear view camera or rear ultrasonic sensor(s) is damaged
  - Wide-rear view camera or the rear ultrasonic sensor(s) is stained with foreign material, such as snow, dirt, etc.
  - Wide-rear view camera is obscured by a light source or by inclement weather, such as heavy rain, fog, snow, etc.
- Problems with the surroundings
  - The surrounding is very bright or very dark
  - Outside temperature is very high or very low
  - The wind is either strong (above 12 mph (20 km/h)) or blowing perpendicular to the rear bumper
  - Objects generating excessive noise, such as vehicle horns, loud motorcycle engines or truck air brakes, are near your vehicle
  - An ultrasonic sensor with similar frequency is near your vehicle
  - There is ground height difference between the vehicle and the pedestrian
  - The image of the pedestrian in the wide-rear view camera is indistinguishable from the background

- The pedestrian is near the rear edge of the vehicle
- The pedestrian is not standing upright
- The pedestrian is either very short or very tall for Reverse Parking Collision-Avoidance Assist to detect
- The pedestrian or cyclist is wearing clothing that easily blends into the background, making it difficult to detect
- The pedestrian is wearing clothing that does not reflect ultrasonic waves well
  - Size, thickness, height, or shape of the object does not reflect ultrasonic waves well (for example, pole, bush, curbs, carts, edge of a wall, etc.)
  - The pedestrian or the object is moving
  - The pedestrian or the object is very close to the rear of the vehicle
  - A wall is behind the pedestrian or the object
  - The object is not located at the rear center of your vehicle
  - The object is not parallel to the rear bumper
  - The road is slippery or inclined
  - The driver backs up the vehicle immediately after shifting to R (Reverse)
  - The driver accelerates or circles the vehicle

Reverse Parking Collision-Avoidance Assist may unnecessarily warn the driver or assist with braking even if there are no pedestrians or objects under the following circumstances:

- Any non-factory equipment or accessory is installed
- Your vehicle is unstable due to an accident or other causes
- Bumper height or rear ultrasonic sensor installation has been modified
- Your vehicle height is low or high due to heavy loads, abnormal tire pressure, etc.
- Wide-rear view camera or the rear ultrasonic sensor(s) is stained with foreign material, such as snow, dirt, etc.
- The pattern on the road is mistaken for a pedestrian
- There is shadow or light reflecting on the ground
- Pedestrians or objects are around the path of the vehicle
- Objects generating excessive noise, such as vehicle horns, loud motorcycle engines or truck air brakes, are near your vehicle
- Your vehicle is backing towards a narrow passage or parking space
- Your vehicle is backing towards an uneven road surface, such as an unpaved road, gravel, bump, gradient, etc.
- A trailer or carrier is installed on the rear of your vehicle
- An ultrasonic sensor with similar frequency is near your vehicle

WARNING

Take the following precautions when using Reverse Parking Collision-Avoidance Assist:

- **Always exercise extreme caution while driving. The driver is responsible for braking and safe driving.**
- **Always pay attention to road and traffic conditions while driving, whether or not there is a warning.**
- **Always look around your vehicle to make sure there are no pedestrians or objects before moving the vehicle.**
- **The performance of Reverse Parking Collision-Avoidance Assist may vary under certain conditions. If vehicle speed is above 2 mph (4 km/h), Reverse Parking Collision-Avoidance Assist will provide collision avoidance assist only when pedestrians are detected. Always look around and pay attention when backing up your vehicle.**
- **Some objects may not be detected by the rear ultrasonic sensors due to the objects distance, size or material, all of which can limit the effectiveness of the sensor.**
- **Reverse Parking Collision-Avoidance Assist may not operate properly or may operate unnecessarily depending on the road conditions and the surroundings.**
- **Do not solely rely on Reverse Parking Collision-Avoidance Assist. Doing so may lead to vehicle damage or injuries.**

CAUTION

- **Noise may be heard when sudden braking occurs to avoid a collision.**
- **If any other warning sound such as the seat belt warning chime is already generated, Reverse Parking Collision-Avoidance Assist warning may not sound.**
- **Reverse Parking Collision-Avoidance Assist may not work properly if the bumper has been damaged, replaced or repaired.**
- **Reverse Parking Collision-Avoidance Assist may not operate normally if interfered by strong electromagnetic waves.**
- **Playing the vehicle audio system at high volume may prevent passengers from hearing Reverse Parking Collision-Avoidance Assist warning sounds.**
- **Turn off Reverse Parking Collision-Avoidance Assist when towing a trailer. If towing and moving in reverse, Reverse Parking Collision-Avoidance Assist will activate as it detects the trailer.**
- **The brake control may not operate properly depending on the status of ESC (Electronic Stability Control).**

  There will only be a warning when:

  - **The ESC (Electronic Stability Control) warning light is on**
  - **ESC (Electronic Stability Control) is engaged in a different function**

CAUTION

Take the following precautions to maintain optimal performance of the detecting sensors:

- **Always keep the wide-rear view camera and rear ultrasonic sensors clean.**
- **Do not use any cleanser containing acid or alkaline detergents when cleaning the wide-rear view camera lens. Use only a mild soap or neutral detergent, and rinse thoroughly with water.**
- **Do not spray the wide-rear view camera or the rear ultrasonic sensors or their surrounding area directly with a high pressure washer. It may cause the wide-rear view camera or the rear ultrasonic sensors to malfunction.**
- **Do not apply objects, such as a bumper sticker or a bumper guard, near the wide-rear view camera or rear ultrasonic sensors or apply paint to the bumper. Doing so may adversely affect the performance of Reverse Parking Collision-Avoidance Assist.**
- **Never disassemble or apply impact on the wide-rear view camera or the rear ultrasonic sensors components.**
- **Do not apply unnecessary force on the wide-rear view camera or the rear ultrasonic sensors. Reverse Parking Collision-Avoidance Assist may not operate properly if the wide-rear view camera or the rear ultrasonic sensor(s) is forcibly moved out of proper alignment. Have the vehicle inspected by an authorized HYUNDAI dealer.**

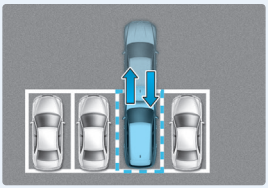
Information

Reverse Parking Collision-Avoidance Assist can detect a pedestrian or an object when:

- **A pedestrian is standing behind the vehicle**
- **A large obstacle, such as a vehicle, is parked in the rear center of your vehicle**

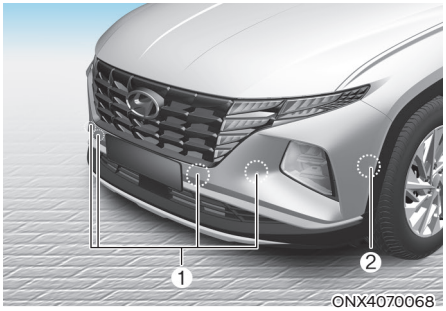
REMOTE SMART PARKING ASSIST (RSPA) (IF EQUIPPED)

Remote Smart Parking Assist uses vehicle sensors to help the driver park and exit parking spaces remotely from outside the vehicle by controlling the steering wheel, vehicle speed and gearshifts.

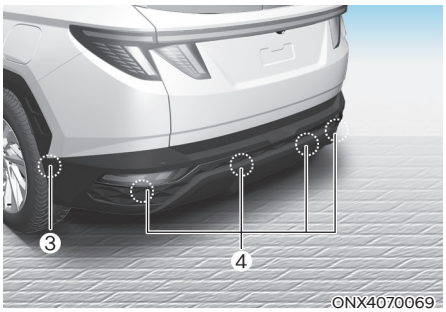
Function	Description
Remote Operation	Remotely moving forward/ backward  OJX1079037

- Remote Operation function helps the driver move the vehicle forward or backward from outside the vehicle using the smart key.
- When Remote Smart Parking Assist operates, Surround View Monitor and Parking Distance Warning will also operate. For more details, refer to “Surround View Monitor (SVM) and “Parking Distance Warning (PDW)” sections in this chapter.

Detecting sensor



ONX4070068



ONX4070069

[1] : Front ultrasonic sensors,
[2] : Front side ultrasonic sensors,
[3] : Rear side ultrasonic sensors,
[4] : Rear ultrasonic sensors

Refer to the picture above for the detailed location of the detecting sensors.

CAUTION

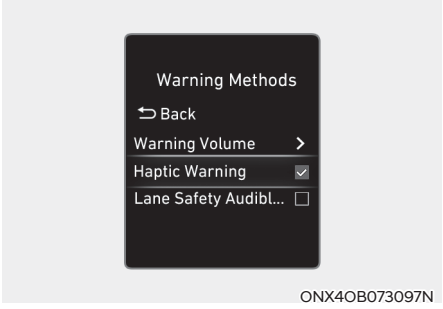
Take the following precautions to maintain optimal performance of the detecting sensors:

- **Never disassemble the detecting sensor or sensor assembly, or apply any damage to it.**
- **If the detecting sensor have been replaced or repaired, have the vehicle inspected by an authorized HYUNDAI dealer.**

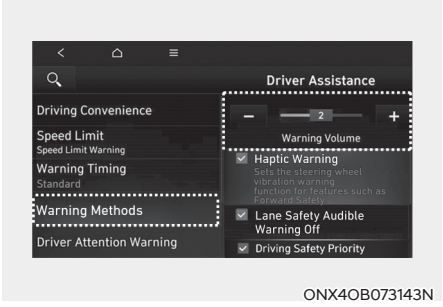
- **Remote Smart Parking Assist may malfunction if the vehicle bumper height or ultrasonic sensor installation has been modified or damaged. Any non-factory installed equipment or accessories may also interfere with the sensor performance.**
- **When the ultrasonic sensor is frozen or stained with snow, dirt, or water, the sensor may not operate until the stains are removed using a soft cloth.**
- **Do not push, scratch or strike the ultrasonic sensor. Sensor damage could occur.**
- **Do not spray the ultrasonic sensors or its surrounding area directly with a high pressure washer.**

Remote Smart Parking Assist Settings

Settings features



ONX4OB073097N



ONX4OB073143N

Warning Methods

The Warning Methods can be set with the vehicle on. Select 'User Settings → Driver Assistance → Warning Methods' from the settings menu in the instrument cluster or 'Setup → Vehicle → Driver Assistance → Warning Methods' from the settings menu in the infotainment system to change the following settings.

- **Warning Volume**: Adjusts the volume of the warning sound.

  Even if you set the warning volume to 'Off' or '0', the warning sound will sound at the volume set to 'Low' or '1'. (if equipped)

Information

- **If you change the Warning Methods, it can be applied to each function of the driver assistance system. Please check and change it in each function.**
- **If the vehicle is restarted, Warning Methods will maintain the last setting.**
- **The setting menu may not exist based on vehicle specification.**

Remote Smart Parking Assist Operation

Remote Smart Parking button

Parking/View button	Smart key
 ONX4070043	 OTM070177

Location	Name	Symbol	Description
Inside vehicle	Parking/View button	P	• Press and hold the Parking/View button to turn on Remote Smart Parking Assist. Also, Forward/Backward Parking Distance warning will automatically turn on.
	Parking Safety button	P	• Press the Parking Safety button while Remote Smart Parking Assist is operating to end Remote Smart Parking Assist operation.
Smart key	Remote Start button	HOLD	• Press the Remote Start button after the door is locked with the engine off to start the engine remotely. • Press the Remote Start button while Remote Smart Parking or Remote Operation function is operating to end function operation.
	Forward button	P	• When using the Remote Operation function, the vehicle moves in the direction of the button while the button is pressed.
	Backward button	P	

Remote Operation

Operating order

Remote Operation function operates in the following order:

1. Getting ready to remotely move forward/backward
2. Remotely moving forward/backward

1. Getting ready to remotely move forward/backward

There are two ways to operate Remote Operation function.


OTM070178

Method (1) Using the function with engine off

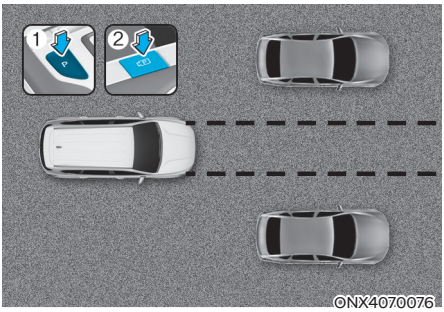
(1) Within a certain range from the vehicle press the door lock ( ) button on the smart key and lock all doors.

(2) Press and hold the Remote Start button (HOLD) within 4 seconds until the engine starts.

- For more details on remotely starting the engine, refer to “Remote Start” section in chapter 6.

Information

If the vehicle is remotely started that has been parked in cold weather for a long time, the operation of Remote Entry/ Exit Parking function may be delayed depending on the engine condition.



ONX4070076



OTM070223L

Method (2) Using the function with engine on

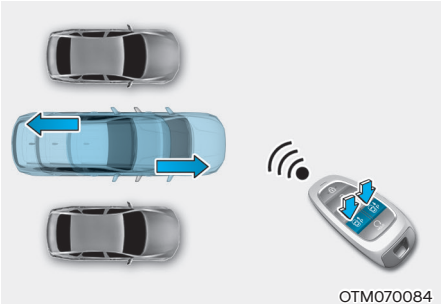
(1) Park the vehicle in front of the space where you want to use Remote Operation function, and shift the gear to P (Park).

(2) Press and hold the Parking/View (P) button to turn on Smart Parking Assist. A message ‘Under Remote Control’ will appear on the infotainment system screen.

(3) Get out of the vehicle with the smart key and close all doors.

- 'Agree' must be selected on the infotainment system screen and the infotainment system has to operate properly to use Remote Operation function.

2. Remotely moving forward/backward


OTM070084

(1) Press and hold one of the Forward (P) or Backward (P) button on the smart key. Remote Smart Parking Assist will automatically control the steering wheel, vehicle speed and gearshift. The vehicle will move in the direction of the button pressed.

(2) While Remote Operation function is operating, if the you do not hold down the Forward (P) or Backward (P) button, the vehicle will stop and system control will pause. The function will start operating again when the button is pressed and held again.

(3) When the vehicle reaches the target location, release the smart key Forward or Backward button.

(4) When the driver gets in the vehicle with the smart key, a message will appear informing the driver Remote Operation function is complete on the infotainment system screen and the engine will remain on.

In addition, when the Remote Start (HOLD) button is pressed on the smart key from outside the vehicle, a message will appear informing the driver Remote Operation function is complete and the engine will turn off.

- Check that all smart keys are outside the vehicle when using Remote Operation function.
- Remote Operation function will operate only when the smart key is within 13 ft. (4 m) from the vehicle. If there is no vehicle movement even when the Forward or Backward button is pressed on the smart key, check the distance to the vehicle and press the button again.
- The detecting range of the smart key may vary depending on the surroundings that are affected by radio waves such as transmission tower, broadcast station, etc.
- When remotely moving forward using method (1), it is recognized as an exit situation, and the vehicle moves 13 ft. (4 m) to check for pedestrians, animals or objects around the vehicle. After confirmation, the steering wheel is controlled according to the condition ahead.
- When remotely moving forward using method (2), it is recognized as a parking situation, and will immediately control the steering wheel according to the condition ahead to assist with entering the parking space and aligning the vehicle. However, performance may reduce depending on the pedestrians, animals, shape of objects, location, etc. around the vehicle.
- For moving remotely backward, both method (1) and (2) aligns the steering wheel first, and then will only move the vehicle straight.
- When remotely moving forward or backward is completed, the vehicle will automatically shift to P (Park) and engage EPB (Electronic Parking Brake).

CAUTION

- **When using Remote Operation function, make sure that all passengers have gotten out of the vehicle.**
- **If the vehicle's battery is discharged or Remote Smart Parking Assist malfunctions when parked in a narrow parking space, Remote Operation function will not operate. Always park your vehicle in a space wide enough for you to get in or out of your vehicle.**
- **Please note that depending on the parking space, you may not be able to exit from the space you have entered by using Remote Operation function.**
- **After parking, the surrounding may change due to the movement of surrounding vehicles. If this occurs, Remote Operation function may not operate.**
- **Before leaving the vehicle, close windows and sunroofs, and make sure the engine is off before locking the doors.**

Remote Operation function operation status

Operation status	Smart key LED	Hazard warning light
Under control	Green LED continuously blinks	-
Pause	Red LED continuously blinks	Blinks
Off	Red LED illuminates for 4 seconds and then turns off	Blinks 3 times and turns off
Complete	Green LED illuminates for 4 seconds and then turns off	Blinks 1 time and turns off

Information

- **Operation status by the hazard warning light may not be applicable based on the regulation of your country.**
- **If the smart key is not within the operating range from the vehicle (approximately 13 ft. (4 m)), the smart key LED will not illuminate or blink. Use the smart key within the operating range.**

How to turn off Remote Operation function while operating

- Press the Parking/View (P) button while the infotainment system screen guides the driver using method 2.
- Shift the gear except to P (Park) while the infotainment system screen guides the driver using method 2.
- Press the Parking Safety (P) button or select 'Cancel' on the infotainment system screen.
- Press the Remote Start (HOLD) button on the smart key while the vehicle is being controlled by Remote Operation function. Remote Operation function will turn off. At this time, the engine will turn off.
- Get on the vehicle with the smart key. Remote Operation function will turn off. At this time, the engine will remain on.

The function will pause in the following conditions when:

- There is a pedestrian, animal or object in the direction the vehicle is moving
- The door or liftgate is open
- The Forward (P) or Backward (P) button is not continuously pressed
- Simultaneously pressing multiple buttons on a smart key
- The smart key is not operated within 13 ft. (4 m) from the vehicle
- Button of another smart key is pressed in addition to the operating smart key
- Parking Collision-Avoidance Assist or Rear Cross-Traffic Collision-Avoidance Assist operates while the vehicle is being controlled in the reverse direction.
- The vehicle moves 22 ft. (7 m) while the smart key is pressed with Remote Operation function (maximum travel distance per button press)

When Remote Operation function is paused, the vehicle will stop. If the condition that made the function to pause disappears, the function may operate again.

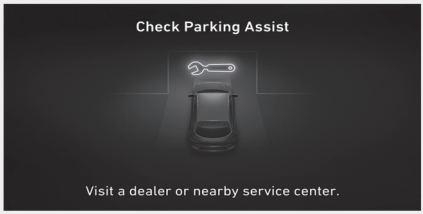
The function will cancel in the following conditions when:

- The steering wheel is steered
- The gear is shifted while the vehicle is moving
- Operating EPB while the vehicle is moving
- The engine hood is open
- The brake pedal or accelerator pedal is depressed when all the doors are closed
- The smart key is outside the vehicle when the brake pedal is depressed while the driver's door is open
- Rapid acceleration occurs
- Vehicle skid occurs
- The wheel is stuck by an obstacle and cannot move
- There are pedestrians, animals or objects at the front and rear of the vehicle at the same time
- Approximately 3 minutes and 50 seconds have past after Remote Operation function has started to operate
- The slope of the road exceeds the operational range
- The function is paused for more than 1 minute
- The total travel distance of the vehicle has exceeded 45 ft. (14 m) after Remote Operation function operation
- The steering wheel, gearshift, braking, and drive controls are not working normally
- There is a problem with the smart key or the smart key battery is low
- ABS, TCS or ESC system operates due to slippery road conditions
- The alarm of the Theft Alarm System sounds

When Remote Operation function is canceled, the vehicle will automatically stop, shift the gear to P (Park) and engage EPB (Electronic Parking Brake).

Remote Smart Parking Assist Malfunction and Limitations

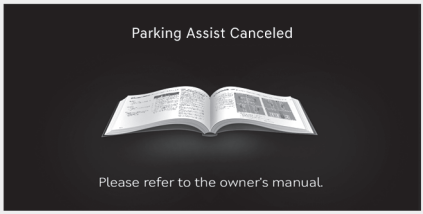
Remote Smart Parking Assist malfunction



OTM070222L

Remote Smart Parking Assist check

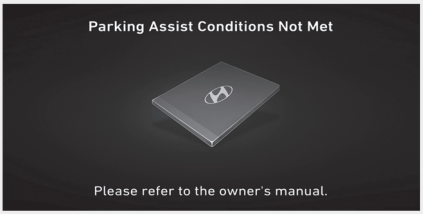
When Remote Smart Parking Assist is not working properly, the ‘Check Parking Assist’ warning message will appear on the infotainment system screen. If the message appears, stop using Remote Smart Parking Assist, and have the vehicle inspected by an authorized HYUNDAI dealer.



OJX1079200L

Remote Smart Parking Assist canceled

When Remote Parking Assist is operating, the function can be canceled, and the ‘Parking Assist Canceled’ warning message may appear regardless of the parking order. Other messages may appear depending on the situations. Follow the instructions provided on the infotainment system screen while parking your vehicle with Remote Parking Assist. Always look around and pay attention when using Remote Smart Parking Assist.



OTM070221L

Remote Smart Parking Assist standby

When ‘Parking Assist Conditions Not Met’ message appears, when Parking/View (P) button has been pressed and held, Remote Smart Parking Assist is in standby. After a while, press and hold the Parking/View (P) button again to see if Remote Smart Parking Assist works.

The message appears even when the smart key's battery is low. Check the smart key battery level.

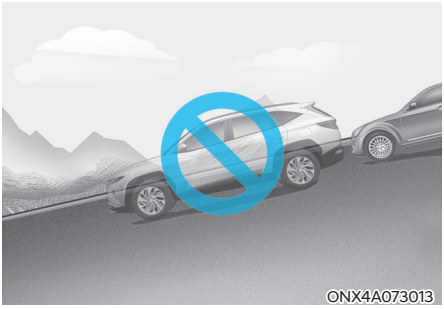
Limitations of Remote Smart Parking Assist

In the following circumstances, Remote Smart Parking Assist performance to park or exit the vehicle may be limited, there may be a risk of collision, or Remote Smart Parking Assist may turn off. Park or exit the vehicle manually if necessary.

- An object is attached to the steering wheel
- The vehicle is installed with a snow chain, spare tire or different size wheel
- Tire pressure is lower or higher than the standard tire pressure
- Your vehicle is loaded with cargo longer or wider than your vehicle or a trailer is connected to your vehicle
- There is a problem with the wheel alignment
- Your vehicle is leaned severely to one side
- Your vehicle is equipped with a trailer hitch
- The license plate is installed differently from the original location
- There is a person, animal or object above or below the ultrasonic sensor when Remote Smart Parking Assist is activated
- The parking space is curved or diagonal
- There is an obstacle such as a person, animal or object (trash can, bicycle, motorcycle, shopping cart, narrow pillar etc.) near the parking space
- There is a circular pillar or narrow pillar, or a pillar surrounded by objects such as fire extinguisher, etc. near the parking space
- The road surface is bumpy (curbstone, speed bump, etc.)
- The road is slippery
- The parking space is near a vehicle with higher ground clearance or big, such as a truck, etc.
- The parking space is Inclined
- There is heavy wind
- Operating Remote Smart Parking Assist on uneven roads, gravel roads, bushes, etc.
- The performance of the ultrasonic sensor is affected by extremely hot or cold weather
- The ultrasonic sensor is covered with snow or water
- An object that generates ultrasonic waves is nearby
- A wireless device with a transmission function operates near the ultrasonic sensors
- Your vehicle is affected by another vehicle's Parking Distance Warning
- The sensor is mounted or positioned incorrectly by an impact to the bumper
- When the ultrasonic sensor cannot detect the following objects:
  - Sharp or slim objects, such as ropes, chains or small poles
  - Objects smaller than 10 in. (100 cm) in length and narrower than 6 in. (14 cm) in diameter
  - Objects which tend to absorb sensor frequency, such as clothes, spongy material or snow

Remote Smart Parking Assist may not operate normally under the following circumstances:

- Parking on inclines



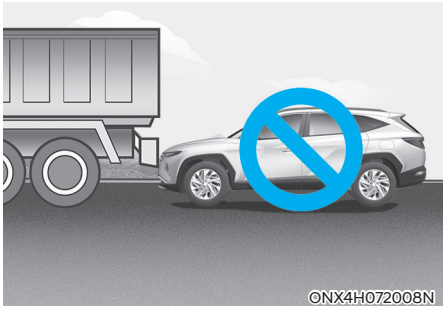
Park manually when parking on inclines.

- Parking on uneven road



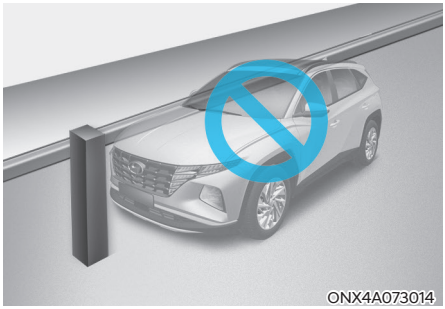
Remote Smart Parking Assist may cancel when the vehicle slips, or the vehicle cannot move due to road conditions such as pebbles or fragmented stones.

- Parking behind a truck



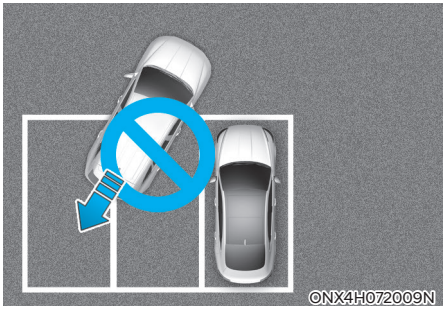
Do not use Remote Smart Parking Assist around vehicles with higher ground clearance, such as a bus, truck, etc. It may lead to an accident.

- Parking near a pillar



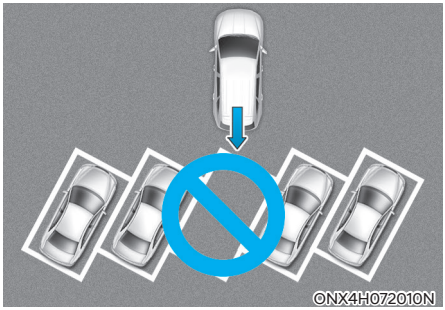
Remote Smart Parking Assist performance may reduce or collision with an obstacle may occur when there is a narrow object, circular pillar, square pillar, or a pillar surrounded by objects such as a fire extinguisher, etc., near the parking space. The driver should park the vehicle manually.

- Parking in a parking space with a vehicle on one side only



If Remote Smart Parking Assist is used, when parking in a parking space with a vehicle only on one side, your vehicle may cross the parking line to avoid the parked vehicle.

- Parking diagonal



Remote Operation may not operate provide properly in a diagonal parking space.

- Parking in snow



Snow may interfere with sensor operation, or Remote Smart Parking Assist may cancel if the road is slippery while parking.

WARNING

Take the following precautions when using Remote Smart Parking Assist:

- **The driver is responsible for safe parking and exit when using Remote Smart Parking Assist. Make sure there are no pedestrians, animals or objects around the vehicle when using Remote Smart Parking Assist.**
- **When using Remote Smart Parking Assist, stay out of the way in the direction the vehicle moves for your safety.**
- **Always check surroundings when using Remote Smart Parking Assist. You may collide with pedestrians, animals, or objects if they are near the sensor or are in the sensor's blind spot area.**
- **A collision may occur if a pedestrian, animal, or object suddenly appears while Remote Smart Parking Assist is operating.**

- Do not use Remote Smart Parking Assist when under the influence of alcohol.
- Do not let children or other people to use the smart key.
- If Remote Smart Parking Assist is used continuously for a long period, it may adversely affect Remote Smart Parking Assist performance.
- Remote Smart Parking Assist may not operate normally if the vehicle needs wheel alignment adjustment such as when the vehicle tilts to one side. Have the vehicle inspected by an authorized HYUNDAI dealer.
- Noise may be heard when braking occurs by Remote Smart Parking Assist or when the brake pedal is depressed by the driver.
- Remote Smart Parking Assist may suddenly apply the brake to avoid collision.
- Use Remote Smart Parking Assist only in a parking space that is large enough for the vehicle to move safely.

NOTICE

- If the 3rd stage warning (continuous beep) of the Forward/Backward Parking Distance Warning sounds while Remote Smart Parking Assist is operating, it means the obstacle detected is close to your vehicle. At this time, Remote Smart Parking Assist will temporarily stop operating. Make sure there are no pedestrians, animals, or objects around your vehicle.
- Depending on brake operation, the stop lights may come on while the vehicle is moving.
- If the vehicle is remotely started and has been parked in cold weather for a long time, the operation of the Remote Smart Parking function may be delayed or canceled depending on vehicle conditions.

DECLARATION OF CONFORMITY

The radio frequency components complies:

Front Radar

- For USA



The antenna(s) must be installed such that a minimum separation distance of at least 20 cm is maintained between the radiator (antenna) and all persons at all times. This device must not be co-located or operating in conjunction with any other antenna or transmitter.

OANATEL275

- For Canada

This device complies with Innovation, Science and Economic Development Canada's licence-exempt RSS standard(s). Operation is subject to the following two conditions:
(1) this device may not cause interference, and
(2) this device must accept any interference, including interference that may cause undesired operation of the device.
Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée
aux deux conditions suivantes:
(1) l'appareil ne doit pas produire de brouillage, et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

OANATEL276

Rear Corner Radar

- For USA



The antenna(s) must be installed such that a minimum separation distance of at least 20 cm is maintained between the radiator (antenna) and all persons at all times. This device must not be co-located or operating in conjunction with any other antenna or transmitter.

OANATEL124

- For Canada

This device complies with Innovation, Science and Economic Development Canada's licence-exempt RSS standard(s). Operation is subject to the following two conditions:
(1) this device may not cause interference, and
(2) this device must accept any interference, including interference that may cause undesired operation of the device.
Le prèsent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisèe
aux deux conditions suivantes:
(1) l'appareil ne doit pas produire de brouillage,
et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioèlectrique subi, mème si le brouillage est susceptible d'en compromettre le fonctionnement.

OANATEL123

8. Emergency Situations

Hazard Warning Flasher 8-2

In Case of an Emergency while Driving 8-3
- If the Engine Stalls while Driving 8-3
- If the Engine Stalls at a Crossroad or Crossing 8-3
- If you have a Flat Tire while Driving 8-3

If the Engine Will Not Start 8-4

If the 12 V Battery is Discharged (Hybrid Vehicle) 8-5
- Before Jump Starting 8-5
- Jump Starting 8-6

If the 12 V Battery is Discharged (Plug-in Hybrid Vehicle) 8-8
- Jump Strating 8-8

If the Engine Overheats 8-10

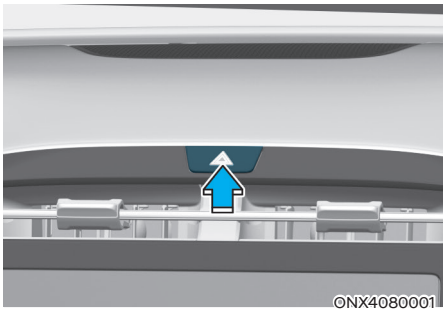
Tire Pressure Monitoring System (TPMS) 8-12
- Check Tire Pressure 8-12
- Tire Pressure Monitoring System 8-13
- Low Tire Pressure Warning Light 8-14
- Low Tire Pressure Position and Tire Pressure Telltale 8-14
- TPMS (Tire Pressure Monitoring System) malfunction indicator 8-15
- Changing a Tire with TPMS 8-15

If You Have a Flat Tire (with Tire Mobility Kit) 8-17
- Introduction 8-17
- Notes on the safe use of the Tire Mobility Kit 8-18
- Components of the Tire Mobility Kit 8-19
- Using the Tire Mobility Kit 8-20
- Checking the Tire Inflation Pressure 8-23

Towing 8-25
- Towing Service 8-25
- Removable Towing Hook 8-26
- Emergency Towing 8-27

Emergency/Roadside Assistance Accessories 8-29
- Fire Extinguisher 8-29
- First Aid Kit 8-29
- Triangle Reflector 8-29
- Tire Pressure Gauge 8-29

HAZARD WARNING FLASHER



The hazard warning flasher serves as a warning to other drivers to exercise extreme caution when approaching, overtaking, or passing your vehicle.

It should be used whenever emergency repairs are being made or when the vehicle is stopped near the edge of a roadway.

To turn the hazard warning flasher on or off, press the hazard warning flasher button with the ignition switch in any position. The button is located in the center fascia panel. All turn signal lights will flash simultaneously.

- The hazard warning flasher operates regardless of whether your vehicle is in the READY state or not.
- The turn signals do not work when the hazard flasher is on.

IN CASE OF AN EMERGENCY WHILE DRIVING

If the Engine Stalls while Driving

- Reduce your speed gradually, keeping a straight line. Move cautiously off the road to a safe place.
- Turn on your hazard warning flasher.
- Try to start the engine again. If your vehicle will not start, contact an authorized HYUNDAI dealer.

If the Engine Stalls at a Crossroad or Crossing

If the engine stalls at a crossroads or crossing, if safe to do so, move the shift button to the N (Neutral) position and then push the vehicle to a safe location.

If you have a Flat Tire while Driving

If a tire goes flat while you are driving:

- Take your foot off the accelerator pedal and let the vehicle slow down while driving straight ahead. Do not apply the brakes immediately or attempt to pull off the road as this may cause loss of vehicle control resulting in an accident. When the vehicle has slowed to such a speed that it is safe to do so, brake carefully and pull off the road. Drive off the road as far as possible and park on firm, level ground. If you are on a divided highway, do not park in the median area between the two traffic lanes.
- When the vehicle is stopped, press the hazard warning flasher button, move the shift button into P (Park), apply the parking brake, and place Engine start/stop button in OFF position.
- Have all passengers get out of the vehicle. Be sure they all get out on the side of the vehicle that is away from traffic.
- When you have a flat tire, follow the Tire Mobility Kit instructions provided later in this chapter.

IF THE ENGINE WILL NOT START

- Be sure to shift the gear to N (Neutral) or P (Park). The engine starts only when the gear is in N (Neutral) or P (Park).
- This vehicle does not have a regular 12 V battery that needs periodic replacement. It is lithium ion type integrated into the HEV high voltage battery. The vehicle has a 12 V battery protection system that cuts 12 V battery from vehicle draw to prevent full discharge. If vehicle will not start, first try pressing the 12 V Battery Reset switch (left side of the steering wheel near the fuel door open switch) to reconnect the 12 V battery, but you must start vehicle within 15 seconds of pressing the 12 V Battery Reset switch. After starting the vehicle (indicator ON), operate the vehicle safely outdoors in ready mode stopped and/or drive it for 30 minutes total to charge the 12 V battery fully.
- Check the fuel level and add fuel if necessary.

If the vehicle still does not start, call an authorized HYUNDAI dealer for assistance.

NOTICE

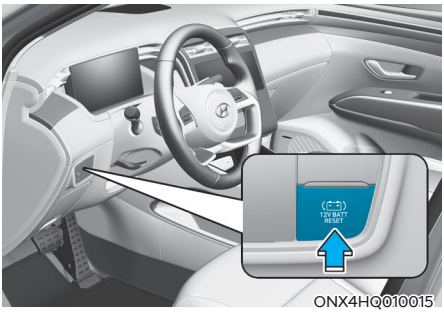
Push or pull starting the vehicle may cause the catalytic converter to overload which can lead to damage to the emission control system.

IF THE 12 V BATTERY IS DISCHARGED (HYBRID VEHICLE)

Before Jump Starting

This vehicle does not have a regular 12 V battery that needs periodic replacement. It is lithium ion type integrated into the HEV high voltage battery. The vehicle has a 12 V battery protection system that cuts 12 V battery from vehicle draw to prevent full discharge.

Using the 12 V battery reset switch



1. Press the 12 V Battery Reset switch to reconnect the 12 V battery.
2. Start the vehicle within 15 seconds of pressing the 12 V Battery Reset switch.
3. After starting the vehicle (indicator on), operate the vehicle safely outdoors in ready mode stopped and/or drive it for 30 minutes total to charge the 12 V battery fully.

If you do not start the vehicle immediately after pressing the 12 V Battery Reset switch, the power of 12 V battery is automatically disconnected after few seconds to save the 12 V battery from additional discharge. If the 12 V battery is disconnected prior to starting the vehicle, press the 12 V Battery Reset switch again and then immediately start the vehicle as explained.

Repeated use of the 12 V Battery Reset switch without a sufficient engine ON cycle (30 Min+) may cause over discharge of the 12 V battery, which will prevent the vehicle from starting. If the 12 V battery is over discharged to a point that the reset does not work, try to jump-start the vehicle.

Information

After starting the vehicle (indicator on), the 12 V battery is being charged whether the engine is running or not. Although there is no engine sound, it is unnecessary to depress the accelerator pedal.

The following items may need to be reset after the battery has been discharged or the battery has been disconnected.

See chapter 4 and 5 for:

- Power Windows
- Trip Computer
- Climate Control System
- Clock
- Audio System
- Sunroof

NOTICE

External power source using 12 V battery

The use of external power accessories may reduce performance and function of the vehicle. Especially, the use of dash cameras may shut off the power of the vehicle prior to the dash camera's automatic shut-down.

If the power of the vehicle is shut off, start the vehicle as explained. (refer to "Using the 12 V Battery Reset Switch")

Jump Starting

In the event vehicle still does not have a functional 12 V battery (check if interior lights will not turn on) then you can try a jump start to the engine compartment jumper terminals using a 12 V booster pack or jumper cables from another vehicle's 12 V battery according to the following instructions.

CAUTION

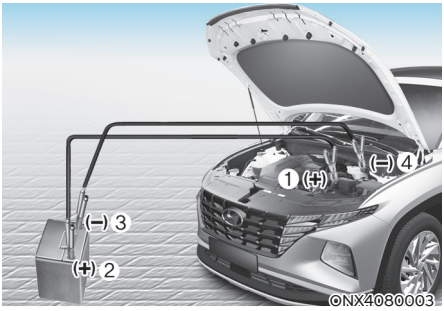
Jump starting can be dangerous if done incorrectly. Follow the jump starting procedure in this section to avoid serious injury or damage to your vehicle. If in doubt about how to properly jump start your vehicle, we strongly recommend that you have a service technician or towing service do it for you.

1. Position the vehicles close enough that the jumper cables will reach, but do not allow the vehicles to touch.

   Avoid fans or any moving parts in the engine compartment at all times, even when the vehicles are turned off.
2. Turn off all electrical devices such as radios, lights, air conditioning, etc. Put the vehicles in P (Park) and set the parking brake. Turn both vehicles OFF.

CAUTION

Before jump starting, make sure to correctly identify the positive (+) and negative (-) terminals to avoid reverse polarity connections.

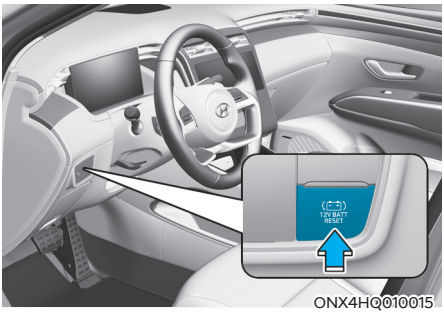


3. Connect the jumper cables in the exact sequence shown in the illustration. First connect one jumper cable to the red, positive (+) jumper terminal of your vehicle (1).
4. Connect the other end of the jumper cable to the red, positive (+) battery/ jumper terminal of the assisting vehicle (2).
5. Connect the second jumper cable to the black, negative (-) battery/jumper terminal of the assisting vehicle (3).
6. Connect the other end of the second jumper cable to the black, negative (-) chassis ground of your vehicle (4).

   Do not allow the jumper cables to contact anything except the correct battery or jumper terminals or the correct ground. Do not lean over the battery when making connections.

WARNING

Do not connect the jumper cable to the negative (-) jumper terminal of the discharged battery. A spark could cause the battery to explode and lead to a personal injury or vehicle damage.



7. Press the 12 V Battery Reset switch.
8. Start the engine of the assisting vehicle and let it run for a few minutes.
9. Start your vehicle as soon as possible. After starting the vehicle (indicator on), operate the vehicle safely outdoors in ready mode stopped and/or drive it for 30 minutes total to charge the 12 V battery fully.

If your vehicle will not start after a few attempts, it probably requires service. In this event please seek qualified assistance. If the cause of your battery discharging is not apparent, have your vehicle checked by an authorized HYUNDAI dealer.

Disconnect the jumper cables in the exact reverse order you connected them:

1. Disconnect the jumper cable from the black, negative (-) chassis ground of your vehicle (4).
2. Disconnect the other end of the jumper cable from the black, negative (-) battery/chassis ground of the assisting vehicle (3).
3. Disconnect the second jumper cable from the red, positive (+) battery/ jumper terminal of the assisting vehicle (2).
4. Disconnect the other end of the jumper cable from the red, charging terminal inside the engine compartment fuse panel (1).

Information

The voltage range of the charger should be 13.3~14V and its current range should be less than 60A. (13.8V is recommended).

CAUTION

- **The use of an improper charger with a voltage and current range higher than specified may cause overheating and damage to the 12 V battery.**
- **The use of an incorrect charger will lead to a power shut-off to save the 12 V battery. Stop using the incorrect charger once the power of the vehicle is shut off.**

Information



An inappropriately disposed battery can be harmful to the environment and human health. Dispose of the battery according to your local law(s) or regulations.

NOTICE

To prevent damage to your vehicle:

- **Only use a 12 V power supply (battery or jumper system) to jump start your vehicle.**
- **Do not attempt to jump start your vehicle by push-starting.**

CAUTION

Do not jump start another vehicle with your hybrid vehicle. Jump starting another vehicle will damage the hybrid vehicle's 12 V battery (lithium ion type).

WARNING

While jump starting your vehicle, avoid the positive (+) and negative (-) cables to come in contact. A spark could cause personal injury.

IF THE 12 V BATTERY IS DISCHARGED (PLUG-IN HYBRID VEHICLE)

Jump Strating

Jump starting can be dangerous if done incorrectly. Follow the jump starting procedure in this section to avoid serious injury or damage to your vehicle. If in doubt about how to properly jump start your vehicle, we strongly recommend that you have a service technician or towing service do it for you.

WARNING

To prevent SERIOUS INJURY or DEATH to you or bystanders, always follow these precautions when working near or handling the battery:



Always read and follow instructions carefully when handling a battery.



Wear eye protection designed to protect the eyes from acid splashes.



Keep all flames, sparks, or smoking materials away from the battery.



Hydrogen is always present in battery cells, is highly combustible, and may explode if ignited.



Keep batteries out of reach of children.



Batteries contain sulfuric acid which is highly corrosive. Do not allow acid to contact your eyes, skin or clothing.

If acid gets into your eyes, flush your eyes with clean water for at least 15 minutes and get immediate medical attention. If acid gets on your skin, thoroughly wash the area. If you feel pain or a burning sensation, get medical attention immediately.

- **When lifting a plastic-cased battery, excessive pressure on the case may cause battery acid to leak. Lift with a battery carrier or with your hands on opposite corners.**
- **Do not attempt to jump start your vehicle if your battery is frozen.**
- **NEVER attempt to recharge the battery when the vehicle's battery cables are connected to the battery.**
- **The electrical ignition system works with high voltage. NEVER touch these components with the engine running or when the Engine Start/ Stop button is in the ON position.**
- **Do not allow the (+) and (-) jumper cables to touch. It may cause sparks.**
- **The battery may rupture or explode when you jump start with a low or frozen battery.**

NOTICE

To prevent damage to your vehicle:

- **Only use a 12 V power supply (battery or jumper system) to jump start your vehicle.**
- **Do not attempt to jump start your vehicle by push-starting.**

Information



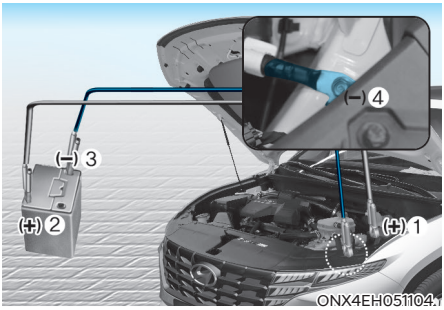
An inappropriately disposed battery can be harmful to the environment and human health. Dispose the battery according to your local law(s) or regulations.

Jump starting procedure

1. Position the vehicles close enough that the jumper cables will reach, but do not allow the vehicles to touch.
2. Avoid fans or any moving parts in the engine compartment at all times, even when the vehicles are turned off.
3. Turn off all electrical devices such as radios, lights, air conditioning, etc. Put the vehicles in P (Park) and set the parking brake. Turn both vehicles OFF.

Information

Your vehicle has a battery in the luggage compartment, but when you jump start your vehicle, use the jumper terminal in the engine compartment.



4. Connect the jumper cables in the exact sequence shown in the illustration. First connect one jumper cable to the red, charging terminal inside the engine compartment fuse panel (1).
5. Connect the other end of the jumper cable to the red, positive (+) battery/ jumper terminal of the assisting vehicle (2).
6. Connect the second jumper cable to the black, negative (-) battery/chassis ground of the assisting vehicle (3).
7. Connect the other end of the second jumper cable to the black, negative (-) chassis ground of your vehicle (4).

   Do not allow the jumper cables to contact anything except the correct battery or jumper terminals or the correct ground. Do not lean over the battery when making connections.
8. Start the engine of the assisting vehicle and let it run at approximately 2,000 RPM for a few minutes. Then start your vehicle.

If your vehicle will not start after a few attempts, it probably requires servicing. In this event please seek qualified assistance. If the cause of your battery discharging is not apparent, have your vehicle checked by an authorized HYUNDAI dealer.

Disconnect the jumper cables in the exact reverse order you connected them:

1. Disconnect the jumper cable from the black, negative (-) chassis ground of your vehicle (4).
2. Disconnect the other end of the jumper cable from the black, negative (-) battery/chassis ground of the assisting vehicle (3).
3. Disconnect the second jumper cable from the red, positive (+) battery/ jumper terminal of the assisting vehicle (2).
4. Disconnect the other end of the jumper cable from the red, positive (+) jumper terminal of your vehicle (1).

IF THE ENGINE OVERHEATS

If your temperature gauge indicates overheating, you experience a loss of power, or hear loud pinging or knocking, the engine may be overheating. If this happens, you should:

1. Pull off the road and stop as soon as it is safe to do so.
2. Shift the gear to P (Park) and set the parking brake
3. Turn off the air conditioner.
4. When the coolant or hot steams gush out of the reservoir, stop the engine and call an authorized HYUNDAI dealer for assistance. If the coolant does not flow out, leave the engine compartment opened, while running the engine. Check the coolant temperature gauge on the instrument cluster and turn off the engine to make sure the coolant temperature is sufficiently cooled down.
5. Cool down the engine sufficiently and check the coolant level. When it is insufficient, check its connection with the radiator, the heater hose, and the water pump for any leakage. When there is no leakage, add the coolant. However, if the problems persists, such as the coolant leakages, the cooling-fan malfunction or the water pump drive belt damages, immediately stop the engine, and have your vehicle checked by an authorized HYUNDAI dealer.

- You should mix antifreeze and water in a proper ratio to make coolant. If the antifreeze ratio is too high or low, it may cause overheating due to the lack of cooling function.

  (Refer to the Mix Ratio in “Checking the coolant level” in chapter 9.)
- If overheating happens repeatedly, have your vehicle to be checked by an authorized HYUNDAI dealer.

WARNING



While the engine is running, keep hands, clothing and tools away from the moving parts such as the cooling fan and drive belt to prevent serious injury.

WARNING



Never remove the engine coolant cap and/or inverter coolant cap or the drain plug while the engine and radiator are hot.

Hot coolant and steam may blow out under pressure, causing serious injury.

Turn the hybrid system off and wait until the engine cools down. Use extreme care when removing the engine coolant cap and/or inverter coolant cap. Wrap a thick towel around it, and turn it counterclockwise slowly to the first stop. Step back while the pressure is released from the cooling system. When you are sure all the pressure has been released, press down on the cap, using a thick towel, and continue turning counterclockwise to remove it.

CAUTION

- **Serious loss of coolant indicates a leak in the cooling system and should be checked as soon as possible by an authorized HYUNDAI dealer.**
- **When the engine overheats from low engine coolant, suddenly adding engine coolant may cause cracks in the engine. To prevent damage, add engine coolant slowly in small quantities.**

TIRE PRESSURE MONITORING SYSTEM (TPMS)



ONX4080004



ONX4E080005

(1) Low Tire Pressure Indicator/TPMS Malfunction Indicator

(2) Low Tire Pressure Position Indicator and Tire Pressure Indicator (Shown on the cluster display)

Check Tire Pressure (if equipped)



ONX4E040019

- You can check the tire pressure in the Warning mode on the cluster.

  Refer to the “Cluster Display Modes” section in chapter 4.
- Tire pressure is displayed after a few minutes of driving after initial vehicle start up.
- If tire pressure is not displayed when the vehicle is stopped, “Drive to display” message will appear. After driving, check the tire pressure.
- The displayed tire pressure values may differ from those measured with a tire pressure gauge.
- You can change the tire pressure unit in the User Settings mode in the cluster display.
  - psi, kpa, bar **(Refer to the “User Settings Mode” section in chapter 4)**.

Tire Pressure Monitoring System

WARNING

Over-inflation or under-inflation can reduce tire life, adversely affect vehicle handling, and lead to sudden tire failure that may cause loss of vehicle control resulting in an accident.

Each tire, including the spare (if provided), should be checked monthly when cold and inflated to the inflation pressure recommended by the vehicle manufacturer on the vehicle placard or tire inflation pressure label. (If your vehicle has tires of a different size than the size indicated on the vehicle placard or tire inflation pressure label, you should determine the proper tire inflation pressure for those tires.)

As an added safety feature, your vehicle has been equipped with a tire pressure monitoring system (TPMS) that illuminates a low tire pressure telltale when one or more of your tires is significantly under-inflated. Accordingly, when the low tire pressure telltale illuminates, you should stop and check your tires as soon as possible, and inflate them to the proper pressure. Driving on a significantly under-inflated tire causes the tire to overheat and can lead to tire failure.

Under-inflation also reduces fuel efficiency and tire tread life, and may affect the vehicle's handling and stopping ability.

Please note that the TPMS is not a substitute for proper tire maintenance, and it is the driver's responsibility to maintain correct tire pressure, even if under-inflation has not reached the level to trigger illumination of the TPMS low tire pressure telltale.

Your vehicle has also been equipped with a TPMS malfunction indicator to indicate when the system is not operating properly. The TPMS malfunction indicator is combined with the low tire pressure telltale. When the system detects a malfunction, the indicator will flash for approximately one minute and then remain continuously illuminated. This sequence will continue upon subsequent vehicle start-ups as long as the malfunction exists.

When the malfunction indicator is illuminated, the system may not be able to detect or signal low tire pressure as intended. TPMS malfunctions may occur for a variety of reasons, including the installation of replacement or alternate tires or wheels on the vehicle that prevent the TPMS from functioning properly.

Always check the TPMS malfunction telltale after replacing one or more tires or wheels on your vehicle to ensure that the replacement or alternate tires and wheels allow the TPMS to continue to function properly.

NOTICE

If any of the below happens, have the system checked by an authorized HYUNDAI dealer.

1. **The Low Tire Pressure Telltale/TPMS Malfunction Indicator does not illuminate for 3 seconds when the Engine Start/Stop button is pressed to the ON position or the vehicle is in the ready ( ) mode.**
2. **The TPMS Malfunction Indicator remains illuminated after blinking for approximately 1 minute.**
3. **The Low Tire Pressure Position Telltale remains illuminated.**

Low Tire Pressure Warning Light

Low Tire Pressure Position and Tire Pressure Telltale



ONX4E040019

When the tire pressure monitoring system warning indicators are illuminated and a warning message displayed on the cluster LCD display, one or more of your tires is significantly under-inflated. The Low Tire Pressure Position Telltale will indicate which tire is significantly underinflated by illuminating the corresponding position light.

If either telltale illuminates, immediately reduce your speed, avoid hard cornering and anticipate increased stopping distances. You should stop and check your tires as soon as possible. Inflate the tires to the proper pressure as indicated on the vehicle's placard or tire inflation pressure label located on the driver's side center pillar outer panel.

If you cannot reach a service station or if the tire cannot hold the newly added air, replace the low pressure tire with the spare tire.

The Low Tire Pressure Telltale will remain on and the TPMS Malfunction Indicator may blink for one minute and then remain illuminated (when the vehicle is driven approximately 10 minutes at speed above 15.5 mph (25 km/h)) until you have the low pressure tire repaired and replaced on the vehicle.

CAUTION

In winter or cold weather, the Low Tire Pressure Telltale may be illuminated if the tire pressure was adjusted to the recommended tire inflation pressure in warm weather. It does not mean your TPMS is malfunctioning because the decreased temperature leads to a proportional lowering of tire pressure.

When you drive your vehicle from a warm area to a cold area or from a cold area to a warm area, or the outside temperature is greatly higher or lower, you should check the tire inflation pressure and adjust the tires to the recommended tire inflation pressure.

WARNING

Low pressure damage

Significantly low tire pressure makes the vehicle unstable and can contribute to loss of vehicle control and increased braking distances.

Continued driving on low pressure tires can cause the tires to overheat and fail.



TPMS (Tire Pressure Monitoring System) malfunction indicator

The TPMS Malfunction Indicator will illuminate after it blinks for approximately one minute when there is a problem with the Tire Pressure Monitoring System.

Have the system checked by an authorized HYUNDAI dealer as soon as possible.

NOTICE

If there is a malfunction with the TPMS, the Low Tire Pressure Position Indicator will not be displayed even though the vehicle has an under-inflated tire.

NOTICE

The TPMS Malfunction Indicator may illuminate after blinking for one minute if the vehicle is near electric power supply cables or radio transmitters such as police stations, government and public offices, broadcasting stations, military installations, airports, transmitting towers, etc.

Additionally, the TPMS Malfunction Indicator may illuminate if snow chains are used or electronic devices such as computers, chargers, remote starters, navigation, etc. This may interfere with normal operation of the TPMS.

Changing a Tire with TPMS

If you have a flat tire, the Low Tire Pressure and Position indicators will come on. Have the flat tire repaired by an authorized HYUNDAI dealer as soon as possible or replace the flat tire with the spare tire.

NOTICE

It is recommended that you do not use a puncture-repairing agent not approved by HYUNDAI dealer or the equivalent specified for your vehicle to repair and/or inflate a low pressure tire. Tire sealant not approved by HYUNDAI dealer or the equivalent specified for your vehicle may damage the tire pressure sensor.

The spare tire (if equipped) does not come with a tire pressure monitoring sensor. When the low pressure tire or the flat tire is replaced with the spare tire, the Low Tire Pressure Indicator will remain on. Also, the TPMS Malfunction Indicator will illuminate after blinking for one minute if the vehicle is driven at speed above 15.5 mph (25 km/h) for approximately 10 minutes.

Once the original tire equipped with a tire pressure monitoring sensor is reinflated to the recommended pressure and reinstalled on the vehicle, the Low Tire Pressure Indicator and TPMS Malfunction Indicator will go off within a few minutes of driving.

If the indicators do not extinguish after a few minutes, contact an authorized HYUNDAI dealer.

Each wheel is equipped with a tire pressure sensor mounted inside the tire behind the valve stem (except for the spare tire). You must use TPMS specific wheels. It is recommended that you always have your tires serviced by an authorized HYUNDAI dealer.

You may not be able to identify a tire with low pressure by simply looking at it. Always use a good quality tire pressure gauge to measure. Please note that a tire that is hot (from being driven) will have a higher pressure measurement than a tire that is cold.

A cold tire means the vehicle has been sitting for 3 hours and driven for less than 1 mile (1.6 km) in that 3 hour period.

Allow the tire to cool before measuring the inflation pressure. Always be sure the tire is cold before inflating to the recommended pressure.

WARNING

- **The TPMS cannot alert you to severe and sudden tire damage caused by external factors such as nails or road debris.**
- **If you feel any vehicle instability, immediately take your foot off the accelerator, apply the brakes gradually with light force, and slowly move to a safe position off the road.**

WARNING

Tampering with, modifying, or disabling the Tire Pressure Monitoring System (TPMS) components may interfere with the system's ability to warn the driver of low tire pressure conditions and/or TPMS malfunctions. Tampering with, modifying, or disabling the Tire Pressure Monitoring System (TPMS) components may void the warranty for that portion of the vehicle.

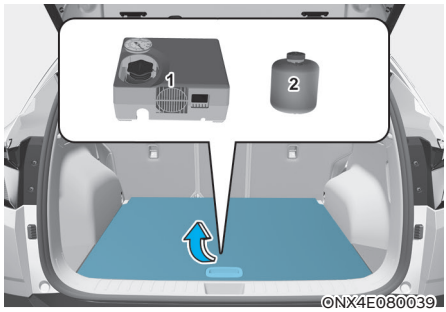
Information

This device complies with Part 15 of the FCC rules.

Operation is subject to the following three conditions:

1. **This device may not cause harmful interference, and**
2. **This device must accept any interference received, including interference that may cause undesired operation.**
3. **Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.**

IF YOU HAVE A FLAT TIRE (WITH TIRE MOBILITY KIT)



For safe operation, carefully read and follow the instructions in this manual before use.

(1) Compressor

(2) Sealant bottle

The Tire Mobility Kit is a temporary fix to the tire and have the tire inspected by an authorized HYUNDAI dealer as soon as possible.

CAUTION

When two or more tires are flat, do not use the tire mobility kit because the sealant provided with the Tire Mobility Kit must be used for only one flat tire.

WARNING

Do not use the Tire Mobility Kit to repair punctures in the tire walls. This can result in an accident due to tire failure.

WARNING

Have your tire repaired as soon as possible. The tire may lose air pressure at any time after inflating with the Tire Mobility Kit.

Introduction

With the Tire Mobility Kit you stay mobile even after experiencing a tire puncture.

The compressor and sealing compound system effectively and comfortably seals most punctures in a passenger car tire caused by nails or similar objects and reinflates the tire.

After you ensure that the tire is properly sealed you can drive cautiously on the tire (distance up to 200 km (120 miles)) at a max. speed of (80 km/h (50 mph) in order to reach a service station or tire dealer for the tire replacement.

It is possible that some tires, especially with larger punctures or damage to the sidewall, cannot be sealed completely.

Air pressure loss in the tire may adversely affect tire performance.

For this reason, you should avoid abrupt steering or other driving maneuvers, especially if the vehicle is heavily loaded or if a trailer is in use.

The Tire Mobility Kit is not designed or intended as a permanent tire repair method and is to be used for one tire only.

This instruction shows you step by step how to temporarily seal the puncture simply and reliably.

Read the section “Notes on the safe use of the Tire Mobility Kit”.

WARNING

Do not use the TMK if a tire is severely damaged by driving run flat or with insufficient air pressure.

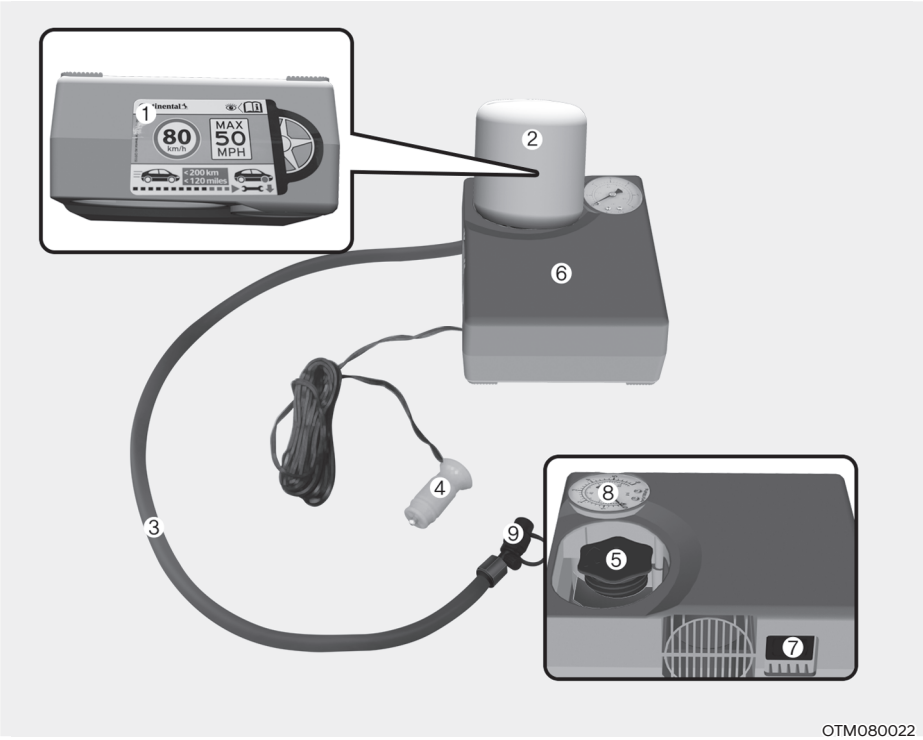
Only punctured areas located within the tread region of the tire can be sealed using the TMK.

Notes on the safe use of the Tire Mobility Kit

- Park your car at the side of the road so that you can work with the Tire Mobility Kit away from moving traffic.
- To be sure your vehicle will not move, even when you're on fairly level ground, always set your parking brake.
- Only use the Tire Mobility Kit for sealing/inflation passenger car tires. Only punctured areas located within the tread region of the tire can be sealed using the tire mobility kit.
- Do not use on motorcycles, bicycles or any other type of tires.
- When the tire and wheel are damaged, do not use Tire Mobility Kit for your safety.
- Use of the Tire Mobility Kit may not be effective for tire damage larger than approximately 16 inch (4 mm).

  Please contact the nearest HYUNDAI dealer if the tire cannot be made roadworthy with the Tire Mobility Kit.
- Do not use the Tire Mobility Kit if a tire is severely damaged by driving run flat or with insufficient air pressure.
- Do not remove any foreign objects such as nails or screws that have penetrated the tire.
- Provided the car is outdoors, leave the vehicle in the ready ( ) mode. Otherwise operating the compressor may eventually drain the car battery.
- Never leave the Tire Mobility Kit unattended while it is being used.
- Do not leave the compressor running for more than 10 minutes at a time or it may overheat.
- Do not use the Tire Mobility Kit if the ambient temperature is below -22 °F (-30 °C).
- In case of skin contact with the sealant, wash the area thoroughly with plenty of water. If the irritation persists, seek medical attention.
- In case of eye contact with the sealant, flush your eyes for at least 15 minutes. If the irritation persists, seek medical attention.
- In case of swallowing the sealant, rinse the mouth and drink plenty of water. However, never give anything to an unconscious person and seek medical attention immediately.
- Long time exposure to the sealant may cause damage to bodily tissue such as kidney, etc.

Components of the Tire Mobility Kit



OTM080022

1. Speed restriction label
2. Sealant and sealant bottle
3. Connection hose of compressor and tire
4. Connector and cable for connection of power outlet
5. Holder for the sealant bottle
6. Compressor
7. ON/OFF switch
8. Pressure gauge for displaying the tire inflation pressure
9. Valve for reducing tire inflation pressure

Connectors, cable and connection hose are stored in the compressor housing.

Strictly follow the specified sequence, otherwise the sealant may escape under high pressure.

WARNING

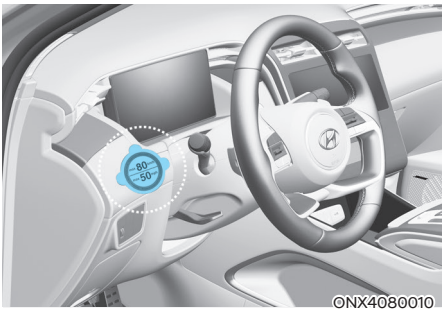
Do not use the tire sealant after the sealant has expired (for example, past the expiration date on the sealant container). This can increase the risk of tire failure.

WARNING

- **Keep out of reach of children.**
- **Avoid contact with eyes.**
- **Do not swallow.**

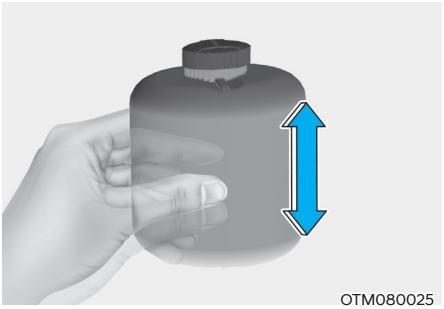
Using the Tire Mobility Kit

WARNING

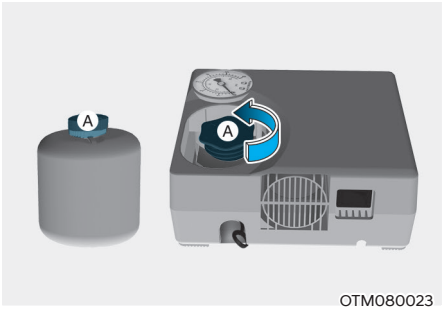


ONX4080010

Detach the speed restriction label (1) from the sealant bottle (2), and place it in a highly visible place inside the vehicle such as on the steering wheel to remind the driver not to drive too fast.


OTM080025

1. Shake the sealant bottle (2).

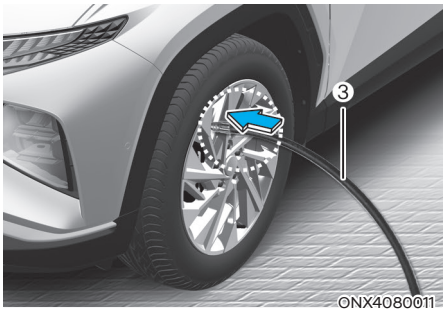


OTM080023

2. Remove the cover (A) of the sealant bottle (2) and compressor (6).


OTM080024

3. Connect the sealant bottle (2) and compressor (6).
4. Make sure that the valve (9) for reducing tire inflation pressure is closed.



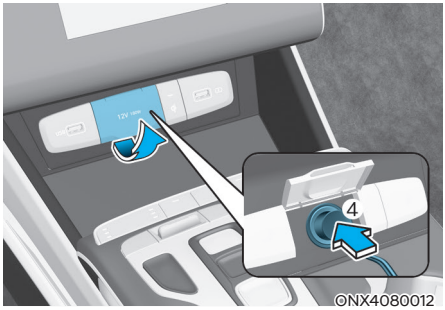
ONX4080011

5. Unscrew the valve cap from the valve of the defective and screw the connection hose (3) of the compressor and tire.

NOTICE

Securely install the sealant filling hose to the valve. If not, sealant may flow backward, possibly clogging the filling hose.

6. Make sure the compressor turns off by pressing [O] of the main switch (7).



ONX4080012

7. Connect the cable and connector (4) to the power outlet in the vehicle.
8. Start the vehicle.

9. With the vehicle ON (indicator ON), switch on the compressor and let it run for approximately 5~7 minutes to fill the sealant up to proper pressure. **(Refer to "Tire and Wheels" section in chapter2)**. The inflation pressure of the tire after filling is unimportant and will be checked/corrected later.

   Be careful not to overinflate the tire and stay away from the tire when filling it.

CAUTION

Do not attempt to drive your vehicle if the tire pressure is below 29 psi (200 kpa). This could result in an accident due to sudden tire failure.

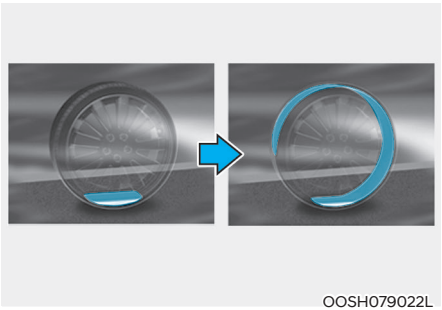
10. Switch off the compressor.
11. Detach the hoses from the sealant bottle connector and from the tire valve.

Return the Tire Mobility Kit to its storage location in the vehicle.

WARNING

Do not leave your vehicle running in a poorly ventilated area for extended periods of time. Carbon monoxide poisoning and suffocation can occur.

Distributing the sealant



OOSH079022L

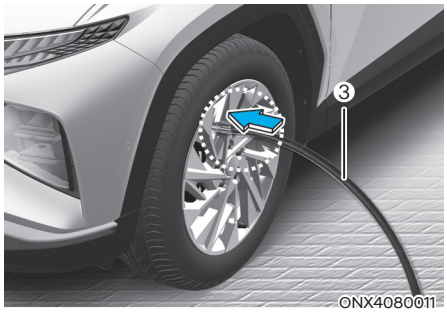
12. Immediately drive approximately 4~6 miles (7~10 km or about 10 minutes) to evenly distribute the sealant in the tire.

Do not exceed a speed of 50 mph (80 km/h). If possible, do not fall below a speed of 12 mph (20 km/h).

While driving, if you experience any unusual vibration, ride disturbance or noise, reduce your speed and drive with caution until you can safely pull off of the side of the road.

Call for road side service or towing.

13. After driving approximately 4~6 miles (7~10 km or about 10 minutes), stop at a safe location.



14. Connect the connection hose (3) of the compressor and tire into the tire valve.
15. Connect cables (4) to the power outlet.
16. Adjust the tire inflation pressure to the recommended tire inflation.

    With the vehicle in the ready ( ) mode, proceed as follows.

    - **To increase the inflation pressure:**

      Switch on the compressor.
      To check the current inflation pressure setting, briefly switch off the compressor.
    - **To reduce the inflation pressure:**

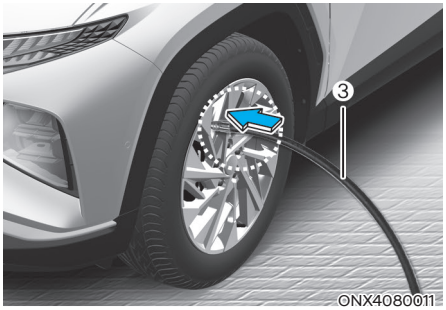
      Press the button (9) on the compressor.

NOTICE

Do not let the compressor run for more than 10 minutes, otherwise the device will overheat and may be damaged.

Checking the Tire Inflation Pressure

1. After driving approximately 4~6 miles (7~10 km or about 10 minutes), stop at a safe location.



2. Connect the connection hose (3) of the compressor and tire into the tire valve.
3. Connect cables (4) to the power outlet.
4. Adjust the tire inflation pressure to the recommended tire inflation.

   With the vehicle in the ready ( ) mode, proceed as follows.

   - **To increase the inflation pressure:**

     Switch on the compressor.
     To check the current inflation pressure setting, briefly switch off the compressor.
   - **To reduce the inflation pressure:**

     Press the button (9) on the compressor.

NOTICE

Do not let the compressor run for more than 10 minutes, otherwise the device will overheat and may be damaged.

Information

The pressure gauge may show higher than actual reading when the compressor is running. To get an accurate tire pressure, the compressor needs to be turned off.

CAUTION

If the inflation pressure is not maintained, drive the vehicle a second time, refer to Distributing the sealant. Then repeat steps 11 to 14.

Use of the TMK may be ineffectual for tire damage larger than approximately 0.16 in (4 mm).

Contact an authorized HYUNDAI dealer if the tire cannot be made roadworthy with the Tire Mobility Kit.

WARNING

The tire inflation pressure must be inflated to the proper pressure (Refer to “Tire and Wheels” section in chapter 2). If it is not, do not continue driving.

Call for road side service or towing.

CAUTION

Tire pressure sensor

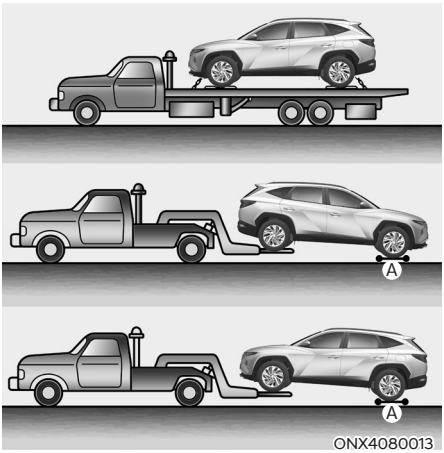
The sealant on the tire pressure sensor and wheel should be removed when you replace the tire with a new one and inspect the tire pressure sensors. Get this done at an authorized dealer.

Information

When reinstalling the repaired or replaced tire and wheel on the vehicle, tighten the wheel nut to 79~94 lbf·ft (11~13 kgf·m).

TOWING

Towing Service



[A] : Dollies

If emergency towing is necessary, have it done by an authorized HYUNDAI dealer or a commercial tow-truck service.

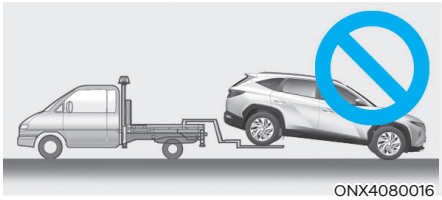
Proper lifting and towing procedures are necessary to prevent damage to the vehicle. The use of wheel dollies or flatbed is recommended.

For AWD vehicles, it must be towed with a wheel lift and dollies or flatbed equipment with all the wheels off the ground.

CAUTION

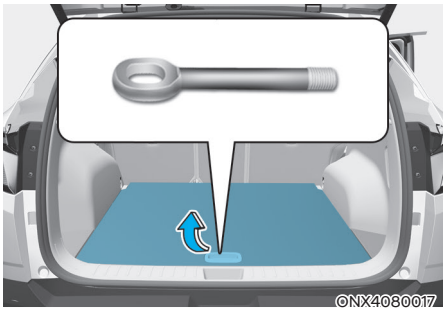


- **Do not tow with sling-type equipment. Use wheel lift or flatbed equipment.**

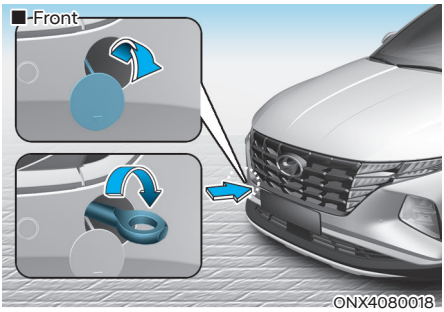


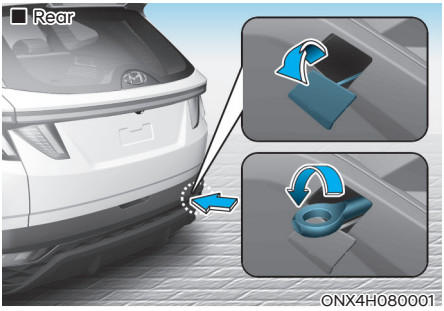
- **Do not tow the vehicle with the any wheels on the ground as this may cause damage to the vehicle.**

Removable Towing Hook



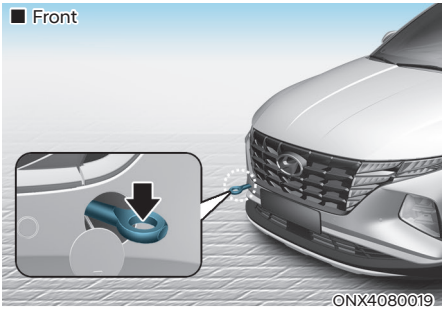
1. Open the liftgate, and remove the towing hook from the tool case.

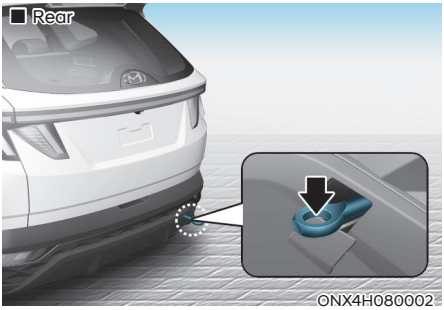




2. Remove the hole cover by pressing the lower part of the cover on the bumper.
3. Install the towing hook by turning it clockwise into the hole until it is fully secured.
4. Remove the towing hook and install the cover after use.

Emergency Towing





If towing is necessary, have it done by an authorized HYUNDAI dealer or a commercial tow truck service.

If a towing service is not available in an emergency, your vehicle may be temporarily towed using a cable or chain secured to the emergency towing hook at the front (or rear) of the vehicle.

Use extreme caution when towing the vehicle with a cable or chain. A driver must be in the vehicle to steer it and operate the brakes.

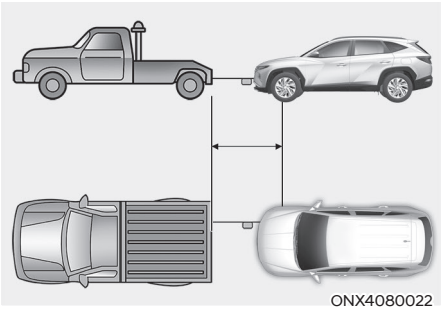
Towing in this manner may be done only on hard-surfaced roads for a short distance and at low speeds. Also, the wheels, axles, power train, steering and brakes must all be in good condition.

CAUTION

The driver must be in the vehicle for steering and braking operations when the vehicle is being towed. Passengers other than the driver must not be in the vehicle.

Always follow these emergency towing precautions:

- Place the ignition switch in the ACC position so the steering wheel is not locked.
- Place the shift button in N (Neutral).
- Release the parking brake.
- Depress the brake pedal with more force than normal as you will have reduced braking performance.
- More steering effort will be required because the power steering system will be disabled.
- Use a vehicle heavier than your own to tow your vehicle.
- The drivers of both vehicles should communicate with each other frequently.
- Before emergency towing, check that the hook is not broken or damaged.
- Fasten the towing cable or chain securely to the hook.
- Do not jerk the hook. Apply steady and even force.


ONX4080022

- Use a towing cable or chain less than 16 feet (5 m) long. Attach a white or red cloth (about 12 inches (30 cm) wide) in the middle of the cable or chain for easy visibility.
- Drive carefully so the towing cable or chain remains tight during towing.
- Before towing, check the automatic transmission for fluid leaks under your vehicle. If the automatic transmission fluid is leaking, flatbed equipment or a towing dolly must be used.

NOTICE

Accelerate or decelerate the vehicle in a slow and gradual manner while maintaining tension on the tow rope or chain to start or drive the vehicle, otherwise tow hooks and the vehicle may be damaged.

NOTICE

To avoid damage to your vehicle and vehicle components when towing:

- **Always pull straight ahead when using the towing hooks. Do not pull from the side or at a vertical angle.**
- **Do not use the towing hooks to pull a vehicle out of mud, sand or other conditions from which the vehicle cannot be driven out under its own power.**
- **Limit the vehicle speed to 10 mph (15 km/h) and drive less than 1 mile (1.5 km) when towing to avoid serious damage to the automatic transmission.**

EMERGENCY/ROADSIDE ASSISTANCE ACCESSORIES

Your HYUNDAI vehicle may come equipped with certain additional emergency or roadside assistance accessories that may be useful if a problem occurs.

Fire Extinguisher

If there is small fire and you know how to use the fire extinguisher, follow these steps carefully.

1. Pull out the safety pin at the top of the extinguisher that keeps the handle from being accidentally pressed.
2. Aim the nozzle towards the base of the fire.
3. Stand approximately 8 ft (2.5 m) away from the fire and squeeze the handle to discharge the extinguisher. If you release the handle, the discharge will stop.
4. Sweep the nozzle back and forth at the base of the fire. After the fire appears to be out, watch carefully since it may re-ignite.

First Aid Kit

Supplies for use in giving first aid such as scissors, bandages and adhesive tape, etc. are provided.

Triangle Reflector

Place the triangle reflector on the road to warn oncoming vehicles during emergencies, such as when the vehicle is parked by the roadside due to problems.

Tire Pressure Gauge

Tires normally lose some air in day-to-day use, and you may have to add a air periodically and usually it is not a sign of a leaking tire, but of normal wear. Always check tire pressure when the tires are cold because tire pressure increases with temperature.

To check the tire pressure, take the following steps:

1. Unscrew the inflation valve cap that is located on the rim of the tire.
2. Press and hold the gauge against the tire valve. Some air will leak as you begin and more will leak if you don't press the gauge in firmly.
3. A firm non-leaking push will activate the gauge.
4. Read the tire pressure on the gauge to see whether the tire pressure is low or high.
5. Adjust the tire pressure to the specified pressure. Refer to "Tires and Wheels" section in chapter 2.
6. Reinstall the inflation valve cap.

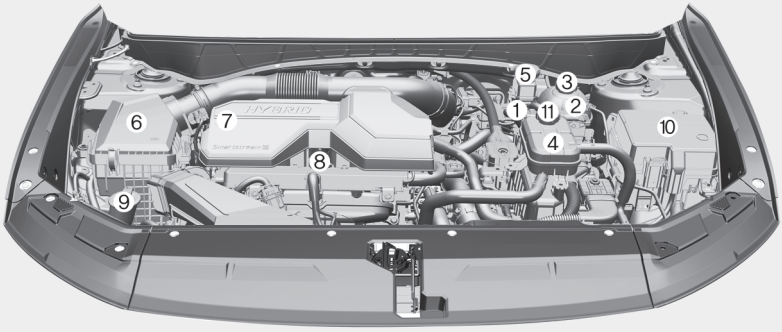
9. Maintenance

Engine Compartment 9-3
Maintenance Services 9-4
Owner's Responsibility 9-4
Owner Maintenance Precautions 9-4
Owner Maintenance 9-5
Owner Maintenance Schedule 9-5
Scheduled Maintenance Services 9-7
Normal Maintenance Schedule 9-9
Maintenance Under Severe Usage Conditions 9-12
Explanation of Scheduled Maintenance Items 9-14
Engine Oil 9-16
Checking the Engine Oil Level 9-16
Checking the Engine Oil and Filter 9-17
Engine Coolant/Inverter Coolant 9-18
Checking the Coolant Level 9-18
Changing Coolant 9-20
Hybrid Starter & Generator (HSG) Belt 9-21
Checking the Hybrid Starter & Generator (HSG) Belt 9-21
Brake Fluid 9-21
Checking the Brake Fluid Level 9-21
Washer Fluid 9-22
Checking the Washer Fluid Level 9-22
Air Cleaner 9-23
Filter Replacement 9-23
Cabin Air Filter 9-24
Filter Inspection 9-24
Filter Replacement 9-24
Wiper Blades 9-25
Blade Inspection 9-25
Blade Replacement 9-25
Battery (Plug-in Hybrid Vehicle) 9-29
For Best Battery Service 9-30
Battery Capacity Label 9-31
Battery Recharging 9-31
Reset Items 9-33

Tires and Wheels 9-34
Tire Care 9-34
Recommended Cold Tire Inflation Pressures 9-34
Check Tire Inflation Pressure 9-35
Tire Rotation 9-36
Wheel Alignment and Tire Balance 9-37
Tire Replacement 9-37
Wheel Replacement 9-38
Tire Traction 9-38
Tire Maintenance 9-38
Tire Sidewall Labeling 9-39
Tire Terminology and Definitions 9-42
All Season Tires 9-44
Summer Tires 9-44
Snow Tires 9-44
Radial-Ply Tires 9-45
Low Aspect Ratio Tires 9-45
Fuses 9-47
Instrument Panel Fuse Replacement 9-48
Engine Compartment Panel Fuse Replacement 9-49
Fuse/Relay Panel Description 9-50
Light Bulbs 9-59
Headlight, Position Lamp, Turn Signal Lamp, Daytime Running Light (DRL) Replacement 9-60
Side Repeater Lamp Replacement 9-60
Rear Combination Lamp Replacement 9-61
High Mounted Stop Lamp Replacement 9-64
License Plate Lamp Replacement 9-64
Interior Light Replacement 9-65
Appearance Care 9-67
Exterior Care 9-67
Interior Care 9-71
Emission Control System 9-74
Crankcase Emission Control System 9-74
Evaporative Emission Control System Including Onboard Refueling Vapor Recovery (ORVR) 9-74
Exhaust Emission Control System 9-75
California Perchlorate Notice 9-77

ENGINE COMPARTMENT

■ Smartstream G1.6 T-GDi HEV



The actual engine compartment in the vehicle may differ from the illustration.

ONX4PH091001N

1. ECU
2. Engine coolant reservoir
3. Engine coolant reservoir cap
4. Inverter coolant reservoir
5. Brake fluid reservoir
6. Air cleaner
7. Engine oil filler cap
8. Engine oil dipstick
9. Windshield washer fluid reservoir
10. Fuse box
11. Inverter coolant reservoir cap

MAINTENANCE SERVICES

You should exercise the utmost care to prevent damage to your vehicle and injury to yourself whenever performing any maintenance or inspection procedures.

Have your vehicle maintained and repaired by an authorized HYUNDAI dealer. An authorized HYUNDAI dealer meets HYUNDAI's high service quality standards and receives technical support from HYUNDAI in order to provide you with a high level of service satisfaction.

Owner's Responsibility

Maintenance service and record retention are the owner's responsibility.

You should retain documents that show proper maintenance has been performed on your vehicle in accordance with the scheduled maintenance service charts shown on the following pages. You need this information to establish your compliance with the servicing and maintenance requirements of your vehicle warranties.

Detailed warranty information is provided in your Owner's Handbook & Warranty Information booklet.

Repairs and adjustments required as a result of improper maintenance or a lack of required maintenance are not covered.

Owner Maintenance Precautions

Inadequate, incomplete or insufficient servicing may result in operational problems with your vehicle that could lead to vehicle damage, an accident, or personal injury. This chapter provides instructions only for the maintenance items that are easy to perform.

Your vehicle should not be modified in any way. Such modifications may adversely affect the performance, safety or durability of your vehicle and may, in addition, violate conditions of the limited warranties covering the vehicle.

NOTICE

Improper owner maintenance during the warranty period may affect warranty coverage. For details, read the separate Owner's Handbook & Warranty Information Booklet provided with the vehicle. If you're unsure about any servicing or maintenance procedure, have the system be serviced by an authorized HYUNDAI dealer.

OWNER MAINTENANCE

WARNING

Performing maintenance work on a vehicle can be dangerous. If you lack sufficient knowledge and experience or the proper tools and equipment to do the work, have it done by an authorized HYUNDAI dealer. ALWAYS follow these precautions for performing maintenance work:

- **Park your vehicle on level ground, move the shift button into the P (Park) position, apply the parking brake, and place the Engine Start/ stop button in the OFF position.**
- **Block the tires (front and back) to prevent the vehicle from moving.**

  Remove loose clothing or jewelry that can become entangled in moving parts.
- **If you must run the engine during maintenance, do so out doors or in an area with plenty of ventilation.**
- **Keep flames, sparks, or smoking materials away from the battery and fuel-related parts.**

The following lists are vehicle checks and inspections that should be performed by the owner or an authorized HYUNDAI dealer at the frequencies indicated to help ensure safe, dependable operation of your vehicle.

Any adverse conditions should be brought to the attention of your dealer as soon as possible.

These Owner Maintenance vehicle checks are generally not covered by warranties and you may be charged for labor, parts and lubricants used.

Owner Maintenance Schedule

When you stop for fuel:

- Check the coolant level in the engine coolant reservoir.
- Check the windshield washer fluid level.
- Check for low or under-inflated tires.

WARNING

Be careful when checking your engine coolant/inverter coolant level if the engine is hot. This may result in coolant being blown out of the opening and cause serious burns and other injuries.

While operating your vehicle:

- Note any changes in the sound of the exhaust or any smell of exhaust fumes in the vehicle.
- Check for vibrations in the steering wheel. Notice if there is any increased steering effort or looseness in the steering wheel, or change in its straight-ahead position.
- Notice if your vehicle constantly turns slightly or “pulls” to one side when traveling on smooth, level road.
- When stopping, listen and check for unusual sounds, pulling to one side, increased brake pedal travel or “hard-to-push” brake pedal.
- If any slipping or changes in the operation of your transmission occurs, check the transmission fluid level.
- Check the automatic transmission P (Park) function.
- Check the parking brake.
- Check for fluid leaks under your vehicle (water dripping from the air conditioning system during or after use is normal).

At least monthly:

- Check coolant level in the engine coolant reservoir.
- Check the operation of all exterior lights, including the stoplights, turn signals and hazard warning flashers.
- Check the inflation pressures of all tires including the spare for tires that are worn, show uneven wear, or are damaged.
- Check for loose wheel lug nuts.

At least twice a year:

- Check radiator, heater and air conditioning hoses for leaks or damage.
- Check windshield washer spray and wiper operation. Clean wiper blades with a clean cloth dampened with washer fluid.
- Check headlight alignment.
- Check muffler, exhaust pipes, shields and clamps.
- Check the seat belts for wear and function.

At least once a year:

- Clean body and door drain holes.
- Lubricate door hinges and hood hinges.
- Lubricate door and hood locks and latches.
- Lubricate door rubber weather strips.
- Check the air conditioning system.
- Inspect and lubricate automatic transmission linkage and controls.
- Clean the battery and terminals. (For plug-in hybrid vehicle)
- Check the brake fluid level.

SCHEDULED MAINTENANCE SERVICES

Follow Normal Maintenance Schedule if the vehicle is usually operated where none of the following conditions apply. If any of the following conditions apply, you must follow the Maintenance Under Severe Usage Conditions.

- Repeated driving short distance of less than 5 miles (8 km) in normal temperature or less than 10 miles (16 km) in freezing temperature
- Extensive engine idling or low speed driving for long distances
- Driving on rough, dusty, muddy, unpaved, graveled or salt-spread roads
- Driving in areas using salt or other corrosive materials or in very cold weather
- Driving in heavy dust conditions
- Driving in heavy traffic area
- Driving on uphill, downhill, or mountain roads repeatedly
- Using for towing or camping, and driving with loads on the roof
- Driving as a patrol car, taxi, other commercial use of vehicle towing
- Frequently driving under high speed or rapid acceleration/deceleration
- Frequently driving in stop-and-go conditions
- Engine oil usage which is not recommended (Mineral type, Semi-synthetic, Lower grade spec, etc.)

If your vehicle is operated under the above conditions, you should inspect, replace or refill more frequently than the following Normal Maintenance Schedule. After the periods or distance shown in the chart, continue to follow the prescribed maintenance intervals.

Information

After driving more than 10 years or 100,000 miles, use severe maintenance schedule.

Information

- **It is normal for engine oil to be consumed during driving. The engine oil level should be checked on regular basis.**
- **The engine oil change interval for normal operating conditions is based on the use of the recommended engine oil specification in chapter 2. If the recommended engine oil specification is not used, then replace the engine oil according to the maintenance schedule under severe operating conditions.**
- **The vehicle may be equipped with the Oil Life Management System that predicts engine oil life based on the driver's driving history and alerts the driver to change engine oil.**
  - **If the deterioration of the engine oil increases depending on the driver's driving style, the remaining oil life alert will appear on the instrument cluster before the normal engine oil replacement interval. Have the engine oil and filter changed by an authorized HYUNDAI dealer.**
  - **Oil Life Management System works when the recommended engine oil is used. If the recommended engine oil is not used, replace the engine oil according to the maintenance schedule under severe usage conditions. Also, check the engine oil level regularly as this system assumes that the engine oil is being filled normally.**
  - **Always reset the remaining engine oil life whenever the engine oil is changed. Otherwise, the indication of remaining Oil life in the Oil Life Management System may not be accurate.To reset the Oil Change Reminder, select 'RESET' from the instrument cluster or infotainment system screen. Then, select 'Yes' when the message "Reset oil life?" or "Has the engine oil been changed? Press [Yes] to reset the oil life." appears on the screen.**
  - **If there is no alert until the maximum maintenance interval, have the vehicle checked by an authorized HYUNDAI dealer.**

Normal Maintenance Schedule

The following maintenance services must be performed to ensure good emission control and performance.
Keep receipts for all vehicle emission services to protect your warranty. Where both mileage and time are shown, the frequency of service is determined by whichever occurs first.

MAINTENANCE INTERVALS / MAINTENANCE ITEM	Number of months or driving distance, whichever comes first														
Months	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180
Milesx1,000	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120
Kmx1,000	13	26	39	52	65	78	91	104	117	130	143	156	169	182	195
HSG belts *1	Inspect every 8,000 miles (13,000 km) or 12 months. Replace every 64,000 miles (104,000 km) or 48 months														
Engine oil and engine oil filter *2 *3 *5	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Fuel additives *4	Add every 8,000 miles (13,000 km) or 12 months														
Air cleaner filter	I	I	R	I	I	R	I	I	R	I	I	R	I	I	R
Spark plugs	Replace every 48,000 miles (78,000 km)														
Rotate tires	Rotate tires every 8,000 miles (13,000 km) or 12 months														
Cabin air filter	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I
Engine coolant	At first, replace at 120,000 miles (200,000 km) or 120 months. After that, replace every 24,000 miles (40,000 km) or 24 months														

I : Inspect and if necessary, adjust, correct, clean or replace.
R : Replace or change.

*1: The drive belt should be replaced when cracks occur or tension is reduced excessively.

*2: Requires<API SN PLUS (or above) Full synthetic> grade engine oil. If a lower grade engine oil (mineral oil including Semi-synthetic) is used, then the engine oil and engine oil filter must be replaced at every 5,000 miles (8,000 km) or 6 months as indicated for severe maintenance condition.

*3: As it is normal for engine oil to be consumed during driving, the amount of engine oil should be checked regularly.

*4: If TOP TIER Detergent Gasoline is not available, one bottle of additive is recommended. Additives are available from your authorized HYUNDAI dealer along with information on how to use them. Do not mix other additives.

*5: Never add any additives to the engine oil. Engine oil additives can change the properties of engine oil and may cause serious engine failure.

Normal Maintenance Schedule (CONT.)

MAINTENANCE ITEM \ MAINTENANCE INTERVALS		Number of months or driving distance, whichever comes first														
	Months	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180
	Milesx1,000	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120
	Kmx1,000	13	26	39	52	65	78	91	104	117	130	143	156	169	182	195
Inverter coolant	HEV	At first, replace at 120,000 miles (200,000 km) or 120 months. After that, replace every 24,000 miles (40,000 km) or 24 months														
	PHEV	Replace every 35,000 miles (60,000 km) or 36 months														
Intercooler, in/out hose		At first, inspect at 5,000 miles (8,000 km) or 6 months, After that, inspect every 20,000 miles (32,000 km) or 24 months														
Battery (12 V) condition (For plug-in hybrid vehicle)		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Brake lines, hoses and connections		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Disc brakes and pads		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Steering gear rack, linkage and boots		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Driveshaft and boots		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Suspension mounting bolts		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Air conditioner refrigerant		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Air conditioner compressor		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Exhaust pipe and muffler			I		I		I		I		I		I		I	
Automatic transmission fluid		No check, No service required														
Vapor hose, fuel filler cap and fuel tank			I		I		I		I		I		I		I	

I : Inspect and if necessary, adjust, correct, clean or replace.
R : Replace or change.

Normal Maintenance Schedule (CONT.)

MAINTENANCE ITEM \ MAINTENANCE INTERVALS	Number of months or driving distance, whichever comes first															
	Months	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180
	Milesx1,000	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120
	Kmx1,000	13	26	39	52	65	78	91	104	117	130	143	156	169	182	195
Fuel tank air filter			I		I		I		I		I		I		I	
Fuel lines, hoses and connections			I		I		I		I		I		I		I	
Parking brake			I		I		I		I		I		I		I	
Brake fluid	Inspect every 8,000 miles (13,000 km) or 12 months. Replace every 48,000 miles (78,000 km) or 48 months															
Transfer case oil/rear differential oil *6					I				I				I			
Drive shaft			I		I		I		I		I		I		I	

I : Inspect and if necessary, adjust, correct, clean or replace.
R : Replace or change.
*6 : Transfer case oil/rear differential oil should be changed anytime, front/rear differential have been submerged in water.

✳ Fuel filter is considered to be maintenance free but periodic inspection is recommended for this maintenance schedule depends on fuel quality. If there are some important safety matters like fuel flow restriction, surging, loss of power, hard starting problem etc, replace the fuel filter immediately regardless of maintenance schedule and consult an authorized HYUNDAI dealer for details.

Maintenance Under Severe Usage Conditions

The following items must be serviced more frequently on cars mainly used under severe driving conditions. Refer to the chart below for the appropriate maintenance intervals.
R : Replace
I : Inspect and if necessary, adjust, correct, clean or replace

Maintenance item	Maintenance operation	Maintenance Intervals	Driving condition
Engine oil and engine oil filter	R	Every 5,000 miles (8,000 km) or 6 months	D, H, I, L
Air cleaner filter	R	Replace more frequently depending on the condition	C, E
Spark plugs	R	Replace more frequently depending on the condition	A, B, F, G, H, I, K
HSG (Hybrid Starter & Generator) belt	R	Every 30,000 miles (48,000km) or 24 months	B, C, D, E, I, K
	I	Every 5,000 miles (8,000km) or 6 months	
Automatic transmission fluid	R	Every 60,000 miles (96,000km)	A, C, D, E, F, G, H, I, K
Steering gear rack, linkage and boots	I	Inspect more frequently depending on the condition	C, D, E, F, G, H, I
Front suspension ball joints	I	Inspect more frequently depending on the condition	C, D, E, F, G
Disc brakes and pads, calipers and rotors	I	Inspect more frequently depending on the condition	C, D, G, H, J, K

Maintenance item	Maintenance operation	Maintenance Intervals	Driving condition
Parking brake	I	Inspect more frequently depending on the condition	C, D, G, H
Driveshaft and boots	I	Inspect more frequently depending on the condition	C, D, E, F, G, H, I, J
Drive shaft	I	Inspect more frequently depending on the condition	C, D, E, F, G, H, I, J
Cabin air filter (for evaporator and blower unit)	R	Replace more frequently depending on the condition	C, E, G
Rear differential oil (AWD)	R	Replace every 72,000 miles (120,000 km)	C, D, E, G, H, I, J
Transfer case oil (AWD)	R	Replace every 72,000 miles (120,000 km)	C, D, E, G, H, I, J

Severe driving conditions

A. Repeatedly driving short distance of less than 5 miles (8 km) in normal temperature or less than 16 miles (10 km) in freezing temperature
B. Extensive engine idling or low speed driving for long distances
C. Driving on rough, dusty, muddy, unpaved, graveled or salt-spread roads
D. Driving in areas using salt or other corrosive materials or in very cold weather
E. Driving in the condition of inflowing sand or dust into engine
F. Driving in heavy traffic area
G. Driving on uphill, downhill, or mountain roads repeatedly
H. Using for towing or camping, and driving with loads on the roof
I. Driving as a patrol car, taxi, other commercial use or vehicle towing
J. Frequently driving under high speed or rapid acceleration/deceleration
K. Frequently driving in stop-and-go conditions
L. Engine oil usage which is not recommended (Mineral type, Semi-synthetic, Lower grade spec, etc.)

EXPLANATION OF SCHEDULED MAINTENANCE ITEMS

Engine Oil and Filter

The engine oil and filter should be changed at the intervals specified in the maintenance schedule. If the vehicle is being driven in severe conditions, more frequent oil and filter changes are required.

HSG (Hybrid Starter & Generator) Belt

The HSG belt should be changed at the intervals specified in the maintenance schedule.

Fuel Lines, Fuel Hoses and Connections

Check the fuel lines, fuel hoses and connections for leakage and damage. Have an authorized HYUNDAI dealer replace any damaged or leaking parts immediately.

Fuel Filter

The fuel filter is considered to be maintenance free but periodic inspection is recommended for this maintenance depends on fuel quality. If there are some important matters like fuel flow restriction, surging, loss of power, hard starting problem etc., replace the fuel filter immediately. Consult an authorized HYUNDAI dealer for details.

Vapor Hose and Fuel Filler Cap

The vapor hose and fuel filler cap should be inspected at those intervals specified in the maintenance schedule. Your HYUNDAI dealer will help to determine if replacement is needed.

Air Cleaner Filter

A genuine HYUNDAI air cleaner filter is recommended when the filter is replaced.

Spark Plugs

Make sure to install new spark plugs of the correct heat range.

When assembling parts, be sure to wipe the inside and outside of the boot bottom of the ignition coil and the insulator of the spark plug with a soft cloth to prevent contamination of the spark plug insulator.

WARNING

Do not remove spark plugs from the vehicle when the engine is hot. You may damage the engine and may also risk burn injury.

Cooling System

Check cooling system components, such as radiator, coolant reservoir, hoses and connections for leakage and damage. Replace any damaged parts.

Engine Coolant/Inverter Coolant

The coolant should be changed at the intervals specified in the maintenance schedule.

Automatic Transmission Fluid

The automatic transmission fluid level does not need to be checked under normal usage conditions.

Have the automatic transmission fluid changed by an authorized HYUNDAI dealer according to the maintenance schedule.

Brake Hoses and Lines

Visually check for proper installation, chafing, cracks, deterioration and any leakage. Replace any deteriorated or damaged parts immediately.

Brake Fluid

Check the brake fluid level in the brake fluid reservoir. The level should be between the MIN and the MAX marks on the side of the reservoir. Use only hydraulic brake fluid conforming to DOT 4 specification.

Parking Brake

Inspect the parking brake system.

Brake Discs, Pads, Calipers and Rotors

Check the pads for excessive wear, discs for run out and wear, and calipers for fluid leakage.

Exhaust Pipe and Muffler

Visually inspect the exhaust pipes, muffler and hangers for cracks, deterioration, or damage. Start the engine and listen carefully for any exhaust gas leakage. Tighten connections or replace parts as necessary.

Suspension Mounting Bolts

Check the suspension connections for looseness or damage. Retighten to the specified torque.

Steering Gear Box, Linkage & Boots/Lower Arm Ball Joint

With the vehicle stopped and the hybrid system off, check for excessive free-play in the steering wheel. Check the linkage for bends or damage. Check the dust boots and ball joints for deterioration, cracks, or damage.

Replace any damaged parts.

Air Conditioning Refrigerant

Check the air conditioning lines and connections for leakage and damage.

Drive Shaft and Related

Check the drive shaft, boots, clamps, rubber couplings and center-bearing rubber for cracks, deterioration, or damage. Replace any damaged parts and if necessary, repack the grease.

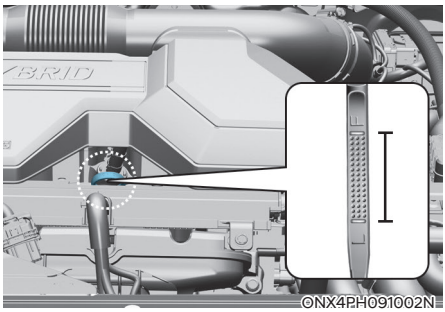
ENGINE OIL

Checking the Engine Oil Level

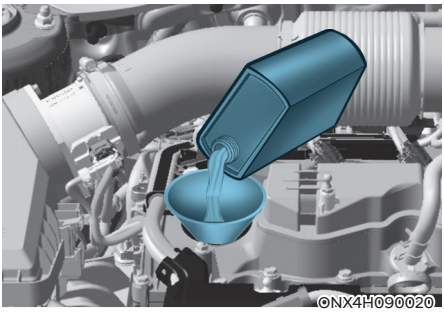
Engine oil is used for lubricating, cooling, and operating various hydraulic components in the engine. Engine oil consumption while driving is normal, and it is necessary to check and refill the engine oil regularly. Also, check and refill the oil level within the recommended maintenance schedule to prevent deterioration of oil performance.

Check the engine oil following the below procedure.

1. Follow all of the oil manufacturer's precautions.
2. Be sure the vehicle is on the level ground in P (Park) with the parking brake set and the wheels blocked.
3. Turn the engine on and warm the engine up until the coolant temperature reaches a constant normal temperature.
4. Turn the engine off, remove the oil filler cap and pull the dipstick out. Wait for 15 minutes for the oil to return to the oil pan.
5. Wipe the dipstick clean and re-insert it fully.



6. Pull the dipstick out again and check the level. The level should be between F (Full) and L (Low).



7. If the oil level is below L, add enough oil to bring the level to F.

Use only the specified engine oil (Refer to "Recommended Lubricants and Capacities" section in chapter 2).

NOTICE

To prevent damage to your engine:

- **Do not overfill with engine oil. Add oil in small quantities and recheck level to ensure engine is not overfilled.**
- **The engine oil consumption may increase while you break in a new vehicle and it will be stabilized after driving 4,000 miles (6,000 km).**
- **The engine oil consumption can be affected by driving habits, climate conditions, traffic conditions, oil quality, etc. Therefore, it is recommended that you inspect the engine oil level regularly and refill it if necessary.**

Checking the Engine Oil and Filter



- The lubrication, rust prevention, cooling, and cleaning effect of the engine oil will gradually degrade during its use. Have the engine oil and filter be changed by an authorized HYUNDAI dealer according to the Oil Life Management System or the Maintenance Schedule at the beginning of this chapter.
- If the maintenance schedule to replace engine oil is exceeded, the engine oil performance may deteriorate, and the engine condition may be affected. Therefore, replace the engine oil according to the maintenance schedule.
- To keep the engine in optimal condition, use the recommended engine oil and filter. If the recommended engine oil and filter are not used replace it according to the maintenance schedule under severe usage conditions.
- The engine oil change interval is set for the purpose of preventing oil deterioration, and is not related the amount of oil consumption; so, check and refill the amount of the oil regularly.

Information

When the oil pressure is low due to insufficient engine oil, the Engine Oil Pressure (🛢) warning light will illuminate. In addition, the enhanced engine protection system, which limits the engine's power is activated and the Malfunction Indicator Lamp (🔧) will illuminate when the vehicle is driven in this state continuously. When the engine oil pressure is restored, the warning light and the enhanced engine protection system will turn off after the engine is restarted.

CAUTION

The engine oil is very hot immediately after the vehicle has been driven and can cause burns during replacement. Replace the engine oil after the engine oil has cooled down.

WARNING

CALIFORNIA PROPOSITION 65 WARNING

Engine oil contains chemicals known to the State of California to cause cancer, birth defects and reproductive harm.

Used engine oil may cause irritation or cancer of the skin if left in contact with the skin for prolonged periods of time.

Always protect your skin by washing your hands thoroughly with soap and warm water as soon as possible after handling used oil.

NOTICE

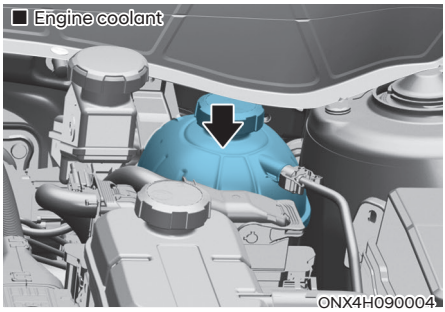
Never add any additives to the engine oil. Engine oil additives can change the properties of engine oil and may cause serious engine failure.

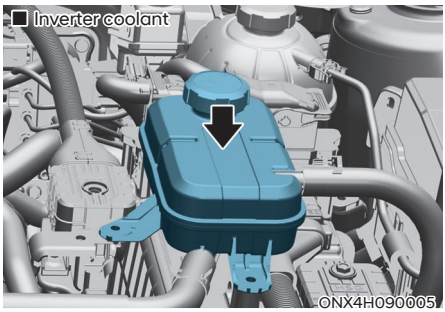
ENGINE COOLANT/INVERTER COOLANT

The high-pressure cooling system has a reservoir filled with year-round antifreeze coolant. The reservoir is filled at the factory.

Check the antifreeze protection and coolant level at least once a year, at the beginning of the winter season and before traveling to a colder climate.

Checking the Coolant Level





Check the condition and connections of all cooling system hoses and heater hoses. Replace any swollen or deteriorated hoses.

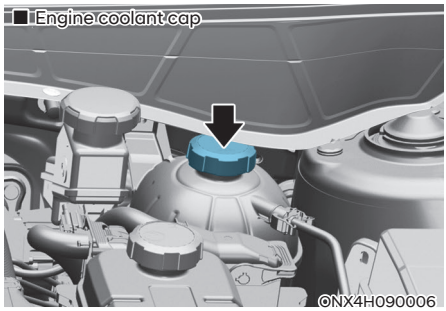
The coolant level should be filled between the MAX and the MIN marks on the side of the coolant reservoir when the engine is cool.

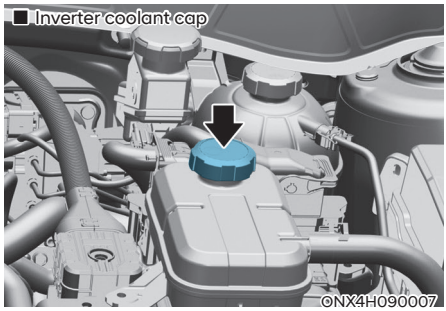
- Engine coolant/Inverter coolant for HEV
  - If the coolant level is low, add the selected anti-freeze according to the proper coolant mix ratio to bring the level to the MAX mark, but do not overfill.
- Inverter coolant for PHEV
  - If the inverter coolant level for the PHEV is low, it should be refilled by an authorized HYUNDAI dealer/ service partner.

If frequent additions are required, see an authorized HYUNDAI dealer for a cooling system inspection.

WARNING
- Inverter coolant for PHEV

Adding other cooling substances or water might lead to inverter cooling system degradation or even failure.





WARNING



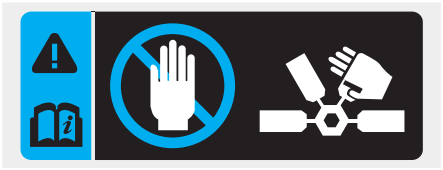
Never remove the engine coolant cap and/or inverter coolant cap or the drain plug while the engine and radiator are hot. Hot coolant and steam may blow out under pressure, causing serious injury.

Turn the vehicle off and wait until the engine cools down. Use extreme care when removing the engine coolant cap and/or inverter coolant cap. Wrap a thick towel around it, and turn it slowly to the first stop. Step back while the pressure is released from the cooling system. When you are sure all the pressure has been released, press down on the cap, using a thick towel, and continue turning to remove it.

Information

The engine coolant and/or inverter coolant level is influenced by the hybrid system temperature. Before checking or refilling the engine coolant and/or inverter coolant, turn the hybrid vehicle off.

WARNING



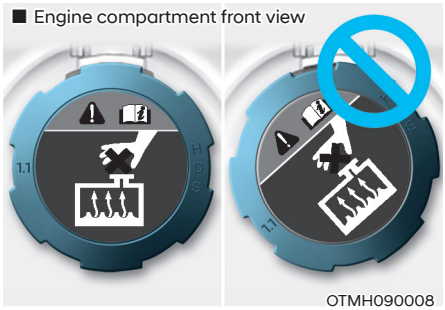
The electric motor for the cooling fan may continue to operate or start up when the engine is not running and can cause serious injury. Keep hands, clothing and tools away from the rotating fan blades of the cooling fan.

Always turn off the vehicle unless the vehicle has to be inspected with the engine on. Be cautious as the cooling fan may operate until you disconnect the (-) battery terminal (For plug-in hybrid vehicle) or the battery connector (For hybrid vehicle).

WARNING

Make sure the coolant cap is properly closed after refilling coolant. Otherwise the engine could be overheated while driving.

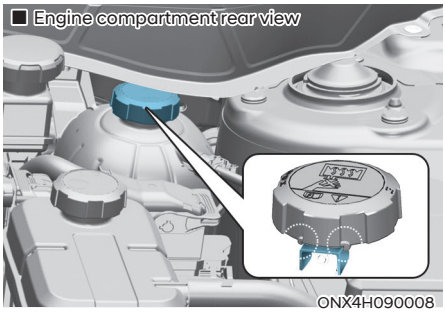
■ Engine compartment front view



OTMH090008

1. Check if the coolant cap label is straight In front.

■ Engine compartment rear view



ONX4H090008

2. Make sure that the tiny protrusions inside the coolant cap is securely interlocked.

Recommended coolant

- When adding coolant, use only deionized water, distilled water or soft water for your vehicle and never mix hard water in the coolant filled at the factory.
- An incorrect coolant mixture can result in severe malfunction or engine/hybrid system damage.
- The engine in your vehicle has aluminum engine parts and must be protected by an phosphate-based ethylene glycol coolant to prevent corrosion and freezing.
- Do not use alcohol or methanol coolant or mix them with the specified coolant.
- Do not use a solution that contains more than 60% antifreeze or less than 35% antifreeze, which would reduce the effectiveness of the solution.

For mixing percentage, refer to the following table:

Ambient Temperature	Mixture Percentage (volume)	
	Antifreeze	Water
5°F (-15°C)	35	65
-13°F (-25°C)	40	60
-31°F (-35°C)	50	50
-49°F (-45°C)	60	40

Information

If in doubt about the mix ratio, a 50% water and 50% antifreeze mix is the easiest to mix together as it will be the same quantity of each. It is suitable to use for most temperature ranges of -31°F (-35°C) and higher.

Changing Coolant

Have coolant changed by an authorized HYUNDAI dealer according to the Maintenance Schedule at the beginning of this chapter.

WARNING

Do not use engine coolant or antifreeze in the washer fluid reservoir.

Engine coolant can severely obscure visibility when sprayed on the windshield and may cause loss of vehicle control resulting in an accident.

Engine coolant may also cause damage to paint and body trim.

NOTICE

To prevent damage to engine parts, put a thick towel around the engine coolant cap and/or inverter coolant cap before refilling the coolant to prevent the coolant from overflowing into engine parts, such as the alternator.

HYBRID STARTER & GENERATOR (HSG) BELT

Checking the Hybrid Starter & Generator (HSG) Belt

Have the Hybrid Starter & Generator (HSG) belt inspected or replaced according to the Maintenance Schedule in this chapter by an authorized HYUNDAI dealer.

CAUTION

When the HSG belt is worn out or damaged, replace the belt.

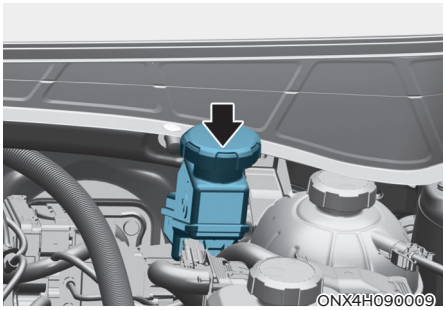
Otherwise, it may cause engine overheating or battery discharge.

WARNING

- **Turn the vehicle off while you inspect the engine or Hybrid Starter & Generator (HSG) belt. Otherwise it may result in serious injury.**
- **Keep hands, clothing etc. away from the Hybrid Starter & Generator (HSG) belt.**

BRAKE FLUID

Checking the Brake Fluid Level



Check the fluid level in the reservoir periodically. The fluid level should be between MAX and MIN marks on the side of the reservoir.

Before removing the reservoir cap and adding brake fluid, clean the area around the reservoir cap thoroughly to prevent brake fluid contamination.

If the level is low, add the specified brake fluid to the MAX level. The level will fall with accumulated mileage. This is a normal condition associated with the wear of the brake linings. If the fluid level is excessively low, have the brake system checked by an authorized HYUNDAI dealer.

WARNING

If the brake system requires frequent additions of fluid this could indicate a leak in the brake system. Have the vehicle inspected by an authorized HYUNDAI dealer.

WARNING

Do not let brake fluid enter into your eyes. If brake fluid gets in your eyes, flush your eyes with clean water for at least 15 minutes and get immediate medical attention.

NOTICE

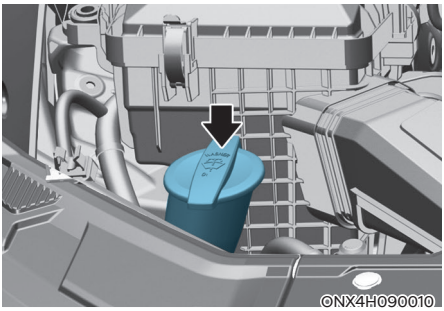
- **Do not allow brake fluid to contact the vehicle's body paint, as it will result in paint damage.**
- **NEVER use brake fluid which has been exposed to open air for an extended time, as its quality cannot be guaranteed.**
- **Do not use the wrong type of brake fluid. A few drops of mineral based oil, such as engine oil in your brake system can damage brake system parts.**

Information

Use only the specified brake fluid (refer to "Recommended Lubricants and Capacities" section in chapter 2).

WASHER FLUID

Checking the Washer Fluid Level



Check the fluid level in the washer fluid reservoir and add fluid if necessary. Plain water may be used during summer months if washer fluid is not available. However, use washer solvent with antifreeze characteristics in cold climates to prevent freezing.

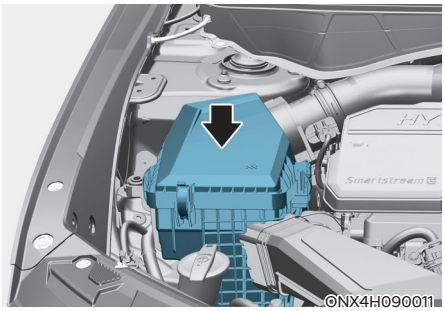
WARNING

To prevent serious injury or death, take the following safety precautions when using washer fluid:

- **Do not use engine coolant or antifreeze in the washer fluid reservoir. Engine coolant can severely obscure visibility when sprayed on the windshield and may cause loss of vehicle control resulting in an accident or damage to paint and body trim.**
- **Do not allow sparks or flame to contact the washer fluid or the washer fluid reservoir. Washer fluid may contain alcohol and can be flammable.**
- **Do not drink washer fluid and avoid contact with skin. Washer fluid is harmful to humans and animals.**
- **Keep washer fluid away from children and animals.**

AIR CLEANER

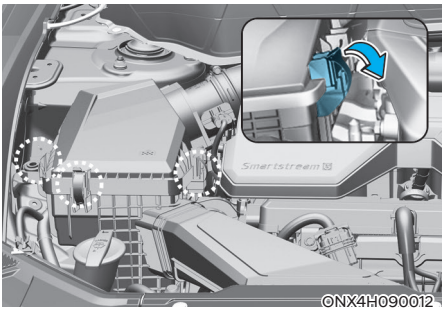
Filter Replacement



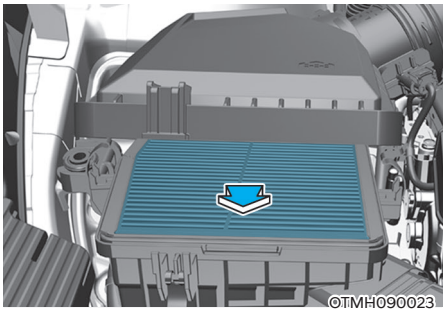
Do not attempt to wash or to rinse it, as water will damage the filter.

If soiled, the air cleaner filter must be replaced.

Replace the filter according to the Maintenance Schedule.



1. Loosen the air cleaner cover attaching clips and open the cover.



2. Wipe the inside of the air cleaner.
3. Replace the air cleaner filter.
4. Lock the cover with the cover attaching clips.
5. Check that the cover is firmly installed.

Information

If the vehicle is operated in extremely dusty or sandy areas, replace the air cleaner filter more often than the usual recommended intervals (Refer to "Maintenance Under Severe Usage Conditions" section in this chapter).

NOTICE

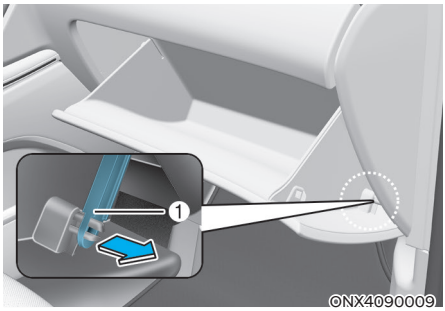
- **Do not drive with the air cleaner filter removed. This will result in excessive engine wear.**
- **When removing the air cleaner filter, be careful that dust or dirt does not enter the air intake, or damage may result.**
- **Use HYUNDAI genuine parts or the equivalent speficied for your vehicle. Use of parts without the matching quality could damage the air flow sensor.**

CABIN AIR FILTER

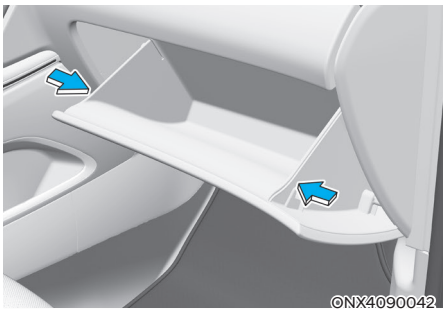
Filter Inspection

The cabin air filter should be replaced according to the Maintenance Schedule. If the vehicle is operated in severely air-polluted cities or on dusty rough roads for a long period, it should be inspected more frequently and replaced sooner. Replace the cabin air filter by following the procedure below and be careful to avoid damaging other components.

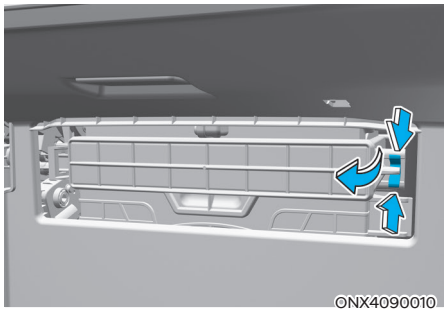
Filter Replacement



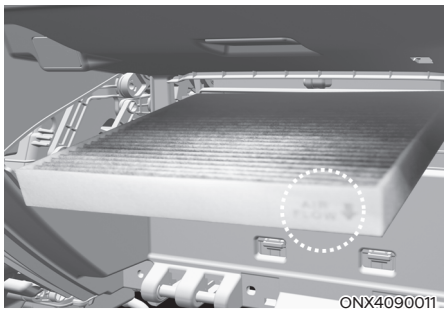
1. Remove the support rod (1).



2. Push in both sides of the glove box as shown. This will ensure that the glove box stopper pins will get released from its holding location allowing the glove box to hang.



3. Remove the climate control air filter case while pressing the lock on the right side of the cover.



4. Replace the climate control air filter.
5. Reassemble in the reverse order of disassembly.

NOTICE

Install a new climate control air filter in the correct direction with the arrow symbol (↓) facing downwards, otherwise, it may be noisy and the effectiveness of the filter may be reduced.

WIPER BLADES

Blade Inspection

Contamination of either the windshield or the wiper blades with foreign matter can reduce the effectiveness of the windshield wipers.

Common sources of contamination are insects, tree sap, and hot wax treatments used by some commercial car washes. If the blades are not wiping properly, clean both the window and the blades with a good cleaner or mild detergent, and rinse thoroughly with clean water.

NOTICE

To prevent damage to the wiper blades, arms or other components, do not:

- **Use gasoline, kerosene, paint thinner, or other solvents on or near them.**
- **Attempt to move the wipers manually.**
- **Use non-specified wiper blades.**

Information

Commercial hot waxes applied by automatic car washes have been known to make the windshield difficult to clean.

Blade Replacement

When the wipers no longer clean adequately, the blades may be worn or cracked, and require replacement.

NOTICE

To prevent damage to the wiper arms or other components, do not attempt to move the wipers manually.

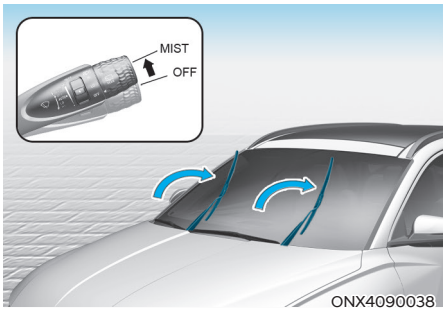
NOTICE

The use of a non-specified wiper blade could result in wiper malfunction and failure.

NOTICE

- **In order to prevent damage to the hood and the wiper arms, the wiper arms should only be lifted when in the top wiping position.**
- **Always return the wiper arms to the windshield before driving.**

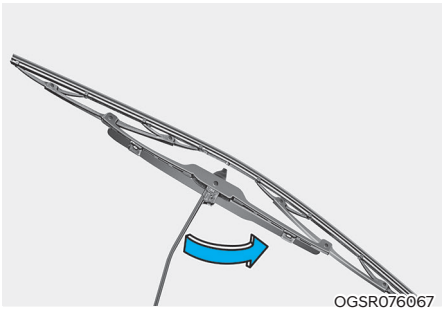
Front windshield wiper service positions

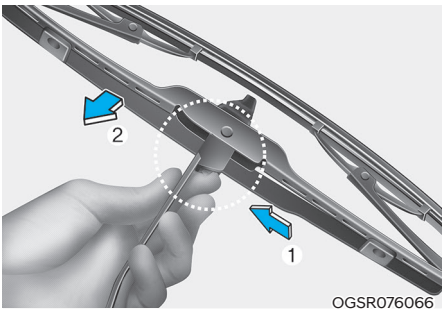


This vehicle has a “hidden” wiper design which means that the wipers cannot be lifted when they are in their bottom resting position.

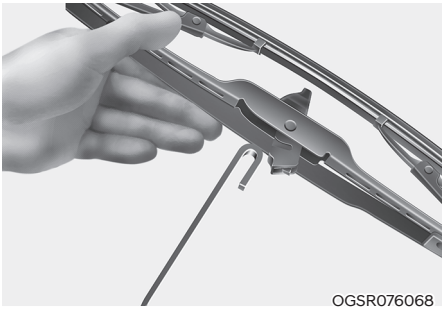
1. Within 20 seconds of turning off the engine, lift and hold the wiper lever up to the MIST (or down to the ﹀) position for about 2 seconds until the wipers move to the top wipe position.
2. At this time you can lift the wipers off the windshield.
3. Gently put the wipers back down onto the windshield.
4. Turn the wipers to any ON position to return the wipers to the bottom resting position.

Type A



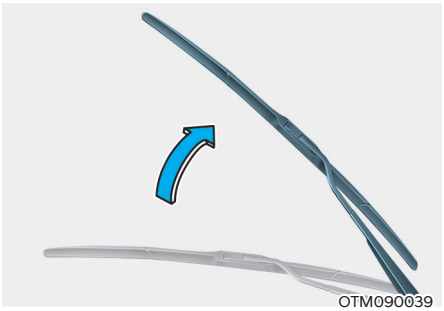


1. Lift up the wiper blade clip. Then lift up the wiper blade.
2. While pushing the lock (1), pull down the wiper blade (2).

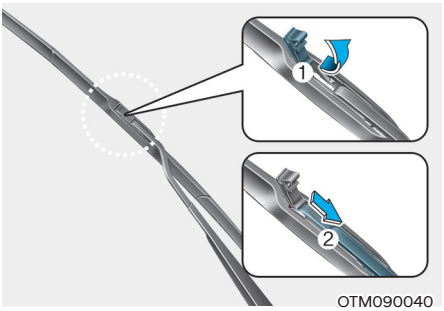


3. Remove the wiper blade from the wiper arm.
4. Install a new wiper blade assembly in the reverse order of removal.
5. Return the wiper arm on the windshield.

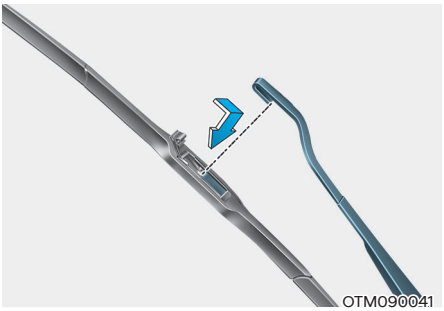
Type B



1. Raise the wiper arm.



2. Lift up the wiper blade clip. Then pull down the blade assembly and remove it.



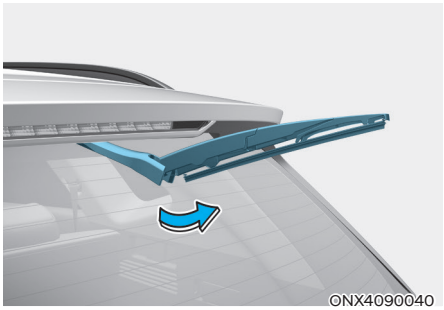
3. Install the new blade assembly in the reverse order of removal.
4. Return the wiper arm on the windshield.

Rear window wiper blade replacement

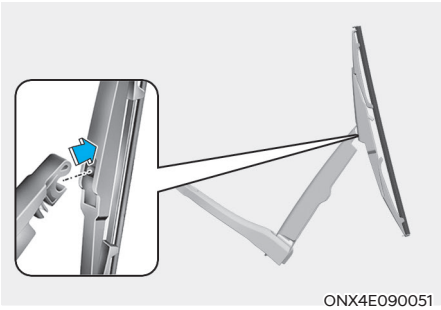
Move the rear wiper to the bottom middle part, and lift up the wiper arm. Pull the wiper blade to remove it.



1. Within 20 seconds after the vehicle ignition is OFF, pull down the wiper lever to MIST position for over 2 seconds until the wiper moves down to the bottom middle part.

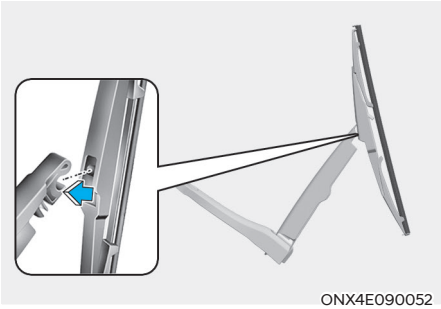


2. Raise the wiper arm.



ONX4E090051

3. Lift up the wiper blade, and pull it out.



ONX4E090052

4. Install the new blade assembly by inserting the center part into the slot in the wiper arm until it clicks into place.

   If the replacement is complete, put down the wiper arm to place it on the rear windshield, and turn the vehicle ignition to ON and operate the wipers to check the blade is installed correctly.

5. Make sure the blade assembly is installed firmly by trying to pull it slightly.

To prevent damage to the wiper arms or other components, Have the wiper blade replaced by an authorized HYUNDAI dealer.

CAUTION

If the wiper arm receives too much force while pulling the blade, the center part may be damaged.

CAUTION

- **The wiper could not operate for approx. 10 seconds when the wiper is operated without washer fluid or the blades are frozen. This is not a malfunction, it is a wiper protection system activated by motor overload circuit within the wiper motor.**
- **The front windshield should be cleaned with water hose and wiped with clean towel with wiper blades raised up. Also, the wiper blades should be wiped clean when the grease or wax is applied to the blades.**

BATTERY (PLUG-IN HYBRID VEHICLE)

WARNING

To prevent SERIOUS INJURY or DEATH to you or bystanders, always follow these precautions when working near or handling the battery:


Always read and follow instructions carefully when handling a battery.


Wear eye protection designed to protect the eyes from acid splashes.


Keep all flames, sparks, or smoking materials away from the battery.


Hydrogen is always present in battery cells, is highly combustible, and may explode if ignited.


Keep batteries out of reach of children.


Batteries contain sulfuric acid which is highly corrosive. Do not allow acid to contact your eyes, skin or clothing.

If acid gets into your eyes, flush your eyes with clean water for at least 15 minutes and get immediate medical attention. If acid gets on your skin, thoroughly wash the area. If you feel pain or a burning sensation, get medical attention immediately.

- When lifting a plastic-cased battery, excessive pressure on the case may cause battery acid to leak. Lift with a battery carrier or with your hands on opposite corners.
- Do not attempt to jump start your vehicle if your battery is frozen.
- NEVER attempt to recharge the battery when the vehicle's battery cables are connected to the battery.
- The electrical ignition system works with high voltage. NEVER touch these components with the engine running or when the Engine Start/ Stop button is in the ON position.

WARNING

CALIFORNIA PROPOSITION 65 WARNING

Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer, birth defects and reproductive harm.

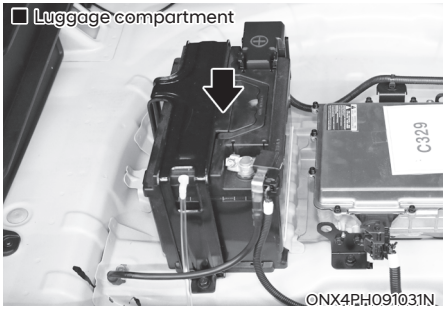
Batteries also contain other chemicals known to the State of California to cause cancer. Wash hands after handling.

NOTICE

Always follow these instructions when handling your vehicle's battery to prevent damage to your battery:

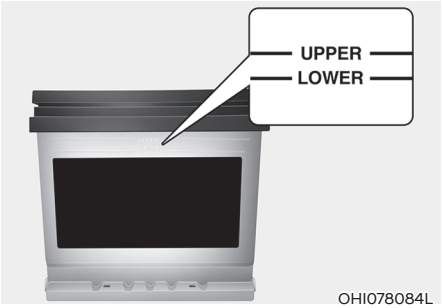
- When you do not use the vehicle for a long time in a low temperature area, disconnect the battery and keep it indoors.
- Always charge the battery fully to prevent battery case damage in low temperature areas.
- Prevent liquid from wetting the battery terminals. The performance of the battery may be degraded, and may cause injury. Be cautious when loading liquid in the liftgate.
- Do not tilt the battery.
- If you connect unauthorized electronic devices to the battery, the battery may be discharged. Never use unauthorized devices.

For Best Battery Service



- Keep the battery securely mounted.
- Keep the battery top clean and dry.
- Keep the terminals and connections clean, tight, and coated with petroleum jelly or terminal grease.
- Rinse any spilled electrolyte from the battery immediately with a solution of water and baking soda.
- If the vehicle is not going to be used for an extended time, disconnect the battery cables.

Information - For batteries marked with UPPER and LOWER



If your vehicle is equipped with a battery marked with LOWER (MIN) and UPPER (MAX) on the side, you should check the electrolyte level.

The electrolyte level should be between LOWER (MIN) and UPPER (MAX). When the electrolyte level is low, add distilled (or de-mineralized) water. (Never add sulfuric acids or other electrolyte).

Be careful not to spill distilled (or demineralized) water over the battery surface or other adjacent components.

Also, do not overfill the battery cells.

If not, it may corrode the battery or other components. Finally, securely close the cell cap. However, contact an authorized HYUNDAI dealer for better battery service.

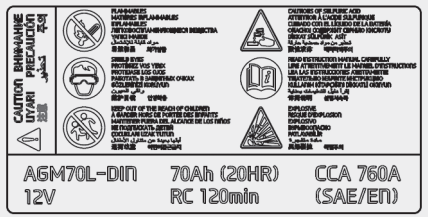
Battery Capacity Label

■ Type A



OTM090063L

■ Type B



OTM090064L

1. MF68L-DIN : The HYUNDAI model name of battery
2. 12V : The nominal voltage
3. 68Ah (20HR) : The nominal capacity (in Ampere hours)
4. RC 110min : The nominal capacity (in Ampere hours)
5. 600A : The cold-test current in amperes by SAE/EN

Battery Recharging

By battery charger

Your vehicle has a maintenance-free, calcium-based battery.

- If the battery becomes discharged over a short time (because, for example, the headlights or interior lights were left on while the vehicle was not in use), recharge it by slow charging (trickle) for 10 hours.
- If the battery gradually discharges because of high electrical load while the vehicle is being used, recharge it at 20-30A for two hours.

WARNING

Always follow these instructions when recharging your vehicle's battery to avoid the risk of SERIOUS INJURY or DEATH from explosions or acid burns:

- **Before performing maintenance or recharging the battery, turn off all accessories and stop the engine.**
- **Keep all flames, sparks, or smoking materials away from the battery.**
- **Always work outdoors or in an area with plenty of ventilation.**
- **Wear eye protection when checking the battery during charging.**
- **The battery must be removed from the vehicle and placed in a well ventilated area.**
- **Watch the battery during charging, and stop or reduce the charging rate if the battery cells begin boiling violently.**

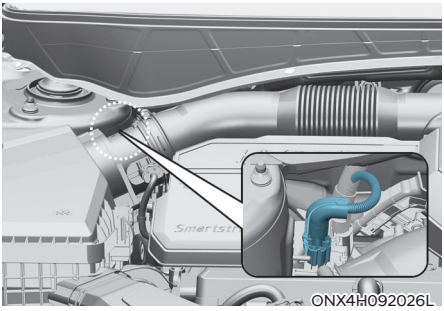
- **The negative battery cable must be removed first and installed last when the battery is disconnected. Disconnect the battery charger in the following order:**
  1. **Turn off the battery charger main switch.**
  2. **Unhook the negative clamp from the negative battery terminal.**
  3. **Unhook the positive clamp from the positive battery terminal.**
- **Use batteries for replacement from an authorized HYUNDAI dealer.**

Hybrid vehicle

The 12V auxiliary battery of the vehicle is integrated within the high-voltage battery. The high-voltage battery is located under the 2nd row seat cushion.

For battery related servicing, have you the vehicle serviced by an authorized HYUNDAI dealer.

12 V auxiliary battery connector



Disconnect the 12 V auxiliary battery connector located inside the engine room compartment to shut down the power of the 12 V auxiliary battery.

Connect the 12 V auxiliary battery connector again after the battery related maintenance is finished.

CAUTION

- **The efficiency of the battery decreases during low temperature. If the vehicle is not used for the extended period of time, park the vehicle indoors if possible.**
- **Always keep the battery charged to the full capacity. The battery case may damage due to freezing if the battery capacity is low.**
- **Do not install unauthorized electrical devices (for example, lamps, dashcam, etc.) to a vehicle. It may discharge the battery.**

NOTICE

AGM battery (if equipped)

- **Absorbent Glass Mat (AGM) batteries are maintenance-free and have the AGM battery serviced by an authorized HYUNDAI dealer. For charging your AGM battery, use only fully automatic battery chargers that are specially developed for AGM batteries.**
- **When replacing the AGM battery, use parts for replacement from an authorized HYUNDAI dealer.**
- **Do not open or remove the cap on top of the battery. This may cause leaks of internal electrolyte that could result in severe injury.**

By jump starting

After a jump start from a good battery, drive the vehicle for 20-30 minutes before it is shutoff. The vehicle may not restart if you shut it off before the battery had a chance to adequately recharge. See “Jump Starting” in chapter 9 for more information on jump starting procedures.

Information



An inappropriately disposed battery can be harmful to the environment and human health. Dispose of the battery according to your local law(s) or regulation.

Reset Items

The following items may need to be reset after the battery has been discharged or the battery terminal (For plug-in hybrid vehicle) or battery connector (For hybrid vehicle) has been disconnected.

- Auto up/down window (see chapter 5)
- Sunroof (see chapter 5)
- Trip computer (see chapter 5)
- Climate control system (see chapter 5)
- Driver position memory system (see chapter 5)
- Clock (see chapter 5)
- Infotainment system (see infotainment system manual)

TIRES AND WHEELS

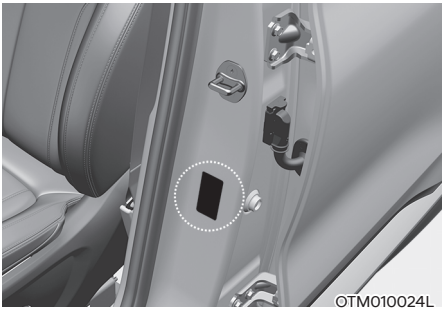
WARNING

Tire failure may cause loss of vehicle control resulting in an accident. To reduce risk of SERIOUS INJURY or DEATH, take the following precautions:

- **Inspect your tires monthly for proper inflation as well as wear and damage.**
- **The recommended cold tire pressure for your vehicle can be found in this manual and on the tire label located on the driver's side center pillar. Always use a tire pressure gauge to measure tire pressure. Tires with too much or too little pressure wear unevenly causing poor handling.**
- **Check the pressure of the spare tire every time you check the pressure of the other tires on your vehicle.**
- **Replace tires that are worn, show uneven wear, or are damaged. Worn tires can cause loss of braking effectiveness, steering control, or traction.**
- **ALWAYS replace tires with the same size, type, construction and tread pattern as each tire that was originally supplied with this vehicle. Using tires and wheels other than the recommended sizes could cause unusual handling characteristics, poor vehicle control, or negatively affect your vehicle's Anti-Lock Brake System (ABS) resulting in a serious accident.**

Tire Care

For proper maintenance, safety, and maximum fuel economy, you must always maintain recommended tire inflation pressures and stay within the load limits and weight distribution recommended for your vehicle.



All specifications (sizes and pressures) can be found on a label attached to the driver's side center pillar.

Recommended Cold Tire Inflation Pressures

All tire pressures (including the spare) should be checked when the tires are cold. "Cold tires" means the vehicle has not been driven for at least three hours or driven less than 1 mile (1.6 km).

Warm tires normally exceed recommended cold tire pressures by 4 to 6 psi (28 to 41 kPa). Do not release air from warm tires to adjust the pressure or the tires will be under-inflated. For recommended inflation pressure, refer to "Tire and Wheels" section in chapter 2.

WARNING

Recommended pressures must be maintained for the best ride, vehicle handling, and minimum tire wear.

Over-inflation or under-inflation can reduce tire life, adversely affect vehicle handling, and lead to sudden tire failure that could result in loss of vehicle control resulting in an accident.

Severe under-inflation can lead to severe heat build-up, causing blowouts, tread separation and other tire failures that can result in the loss of vehicle control resulting in an accident. This risk is much higher on hot days and when driving for long periods at high speeds.

CAUTION

- **Under-inflation results in excessive wear, poor handling and reduced fuel economy. Wheel deformation is also possible. Keep your tire pressures at the proper levels. If a tire frequently needs refilling, have it checked by an authorized HYUNDAI dealer.**
- **Over-inflation produces a harsh ride, excessive wear at the center of the tire tread, and a greater possibility of damage from road hazards.**

Check Tire Inflation Pressure

Check your tires, including the spare tire, once a month or more.

How to check

Use a good quality tire pressure gauge to check tire pressure. You can not tell if your tires are properly inflated simply by looking at them. Radial tires may look properly inflated when they are under-inflated.

Remove the valve cap from the tire valve stem. Press the tire gauge firmly onto the valve to get a pressure measurement. If the cold tire inflation pressure matches the recommended pressure on the tire and loading information label, no further adjustment is necessary. If the pressure is low, add air until you reach the recommended pressure. Make sure to put the valve caps back on the valve stems. Without the valve cap, dirt or moisture could get into the valve core and cause air leakage. If a valve cap is missing, install a new one as soon as possible.

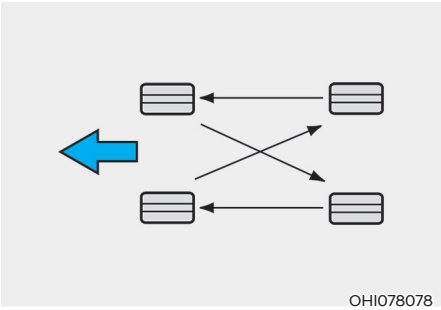
If you overfill the tire, release air by pushing on the metal stem in the center of the tire valve. Recheck the tire pressure with the tire gauge. Be sure to put the valve caps back on the valve stems. Without the valve cap, dirt or moisture could get into the valve core and cause air leakage. If a valve cap is missing, install a new one as soon as possible.

Tire Rotation

To equalize tread wear, HYUNDAI recommends that the tires be rotated according to the maintenance schedule or sooner if irregular wear develops.

During rotation, check the tires for correct balance.

When rotating tires, check for uneven wear and damage. Abnormal wear is usually caused by incorrect tire pressure, improper wheel alignment, out-of-balance wheels, severe braking or severe cornering. Look for bumps or bulges in the tread or side of the tire. Replace the tire if you find any of these conditions. Replace the tire if fabric or cord is visible. After rotation, be sure to bring the front and rear tire pressures to specification and check lug nut tightness (proper torque is 79~94 lbf·ft [11~13 kgf·m]).



OHI078078

Disc brake pads should be inspected for wear whenever tires are rotated.

Information

The outside and inside of the unsymmetrical tire is distinguishable. When installing an unsymmetrical tire, be sure to install the side marked "outside" face the outside. If the side marked "inside" is installed on the outside, it will have a negative effect on vehicle performance.

WARNING

- **Do not use the compact spare tire for tire rotation.**
- **Do not mix bias ply and radial ply tires under any circumstances. This may cause unusual handling characteristics that may cause loss of vehicle control resulting in an accident.**

Wheel Alignment and Tire Balance

The wheels on your vehicle were aligned and balanced carefully at the factory to give you the longest tire life and best overall performance.

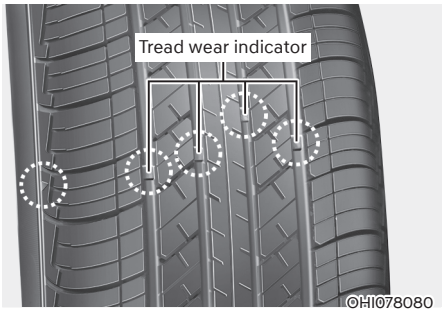
In most cases, you will not need to have your wheels aligned again. However, if you notice unusual tire wear or your vehicle pulling one way or the other, the alignment may need to be reset.

If you notice your vehicle vibrating when driving on a smooth road, your wheels may need to be rebalanced.

NOTICE

Incorrect wheel weights can damage your vehicle's aluminum wheels. Use only approved wheel weights.

Tire Replacement



If the tire is worn evenly, a tread wear indicator will appear as a solid band across the tread. This shows there is less than 1/16 in. (1.6 mm) of tread left on the tire. Replace the tire when this happens.

Do not wait for the band to appear across the entire tread before replacing the tire.

WARNING

To reduce the risk of DEATH or SERIOUS INJURY:

- **Replace tires that are worn, show uneven wear, or are damaged. Worn tires can cause loss of braking effectiveness, steering control, and traction.**
- **Always replace tires with the same size as each tire that was originally supplied with this vehicle. Using tires and wheels other than the recommended sizes could cause unusual handling characteristics, poor vehicle control, or negatively affect your vehicle's Anti-Lock Brake System (ABS) resulting in a serious accident.**
- **When replacing tires (or wheels), it is recommended to replace the two front or two rear tires (or wheels) as a pair. Replacing just one tire can seriously affect your vehicle's handling.**
- **Tires degrade over time, even when they are not being used. Regardless of the remaining tread, HYUNDAI recommends that tires be replaced after six (6) years of normal service.**
- **Heat caused by hot climates or frequent high loading conditions can accelerate the aging process. Failure to follow this warning may cause sudden tire failure, which could lead to a loss of vehicle control resulting in an accident.**

Compact spare tire replacement (if equipped)

A compact spare tire has a shorter tread life than a regular size tire. Replace it when you can see the tread wear indicator bars on the tire. The replacement compact spare tire should be the same size and design tire as the one provided with your new vehicle and should be mounted on the same compact spare tire wheel. The compact spare tire is not designed to be mounted on a regular size wheel, and the compact spare tire wheel is not designed for mounting a regular size tire.

WARNING

The original tire should be repaired or replaced as soon as possible to avoid failure of the spare and loss of vehicle control resulting in an accident.The compact spare tire is for emergency use only. Do not operate your vehicle over 50 mph (80 km/h) when using the compact spare tire.

Wheel Replacement

When replacing the metal wheels for any reason, make sure the new wheels are equivalent to the original factory units in diameter, rim width and offset.

Tire Traction

Tire traction can be reduced if you drive on worn tires, tires that are improperly inflated or on slippery road surfaces. Tires should be replaced when tread wear indicators appear. To reduce the possibility of losing control, slow down whenever there is rain, snow or ice on the road.

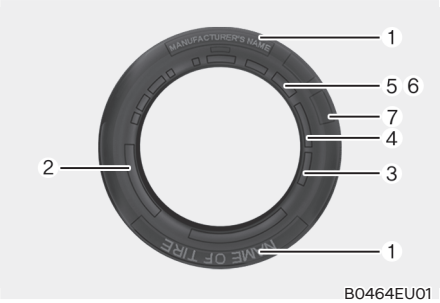
Tire Maintenance

In addition to proper inflation, correct wheel alignment helps to decrease tire wear. If you find a tire is worn unevenly, have your dealer check the wheel alignment.

When you have new tires installed, make sure they are balanced. This will increase vehicle ride comfort and tire life. Additionally, a tire should always be rebalanced if it is removed from the wheel.

Tire Sidewall Labeling

This information identifies and describes the fundamental characteristics of the tire and also provides the tire identification number (TIN) for safety standard certification. The TIN can be used to identify the tire in case of a recall.



1. Manufacturer or brand name

Manufacturer or brand name is shown.

2. Tire size designation

A tire's sidewall is marked with a tire size designation. You will need this information when selecting replacement tires for your car. The following explains what the letters and numbers in the tire size designation mean.

Example tire size designation:

(These numbers are provided as an example only; your tire size designator could vary depending on your vehicle.)

235/65 R17 95 H

235 - Tire width in millimeters.

65 - Aspect ratio. The tire's section height as a percentage of its width.

R - Tire construction code (Radial).

17 - Rim diameter in inches.

95 - Load Index, a numerical code associated with the maximum load the tire can carry.

H - Speed Rating Symbol. See the speed rating chart in this section for additional information.

Wheel size designation

Wheels are also marked with important information that you need if you ever have to replace one. The following explains what the letters and numbers in the wheel size designation mean.

Example wheel size designation:

7.0J X 17

7.0 - Rim width in inches.

J - Rim contour designation.

17 - Rim diameter in inches.

Tire speed ratings

The chart below lists many of the different speed ratings currently being used for passenger vehicle tires. The speed rating is part of the tire size designation on the sidewall of the tire. This symbol corresponds to that tire's designed maximum safe operating speed.

Speed Rating Symbol	Maximum Speed
S	112 mph (180 km/h)
T	118 mph (190 km/h)
H	130 mph (210 km/h)
V	149 mph (240 km/h)
W	168 mph (270 km/h)
Y	186 mph (300 km/h)

3. Checking tire life (TIN : Tire Identification Number)

Any tires that are over six years old, based on the manufacturing date, (including the spare tire) should be replaced by new ones. You can find the manufacturing date on the tire sidewall (possibly on the inside of the wheel), displaying the DOT Code. The DOT Code is a series of numbers on a tire consisting of numbers and English letters. The manufacturing date is designated by the last four digits (characters) of the DOT code.

DOT : XXXX XXXX OOOO

The front part of the DOT shows a plant code number, tire size and tread pattern and the last four numbers indicate week and year manufactured.

For example:

DOT XXXX XXXX 1524 represents that the tire was produced in the 15th week of 2024.

4. Tire ply composition and material

The number of layers or plies of rubber-coated fabric in the tire. Tire manufacturers also must indicate the materials in the tire, which include steel, nylon, polyester, and others. The letter "R" means radial ply construction; the letter "D" means diagonal or bias ply construction; and the letter "B" means belted-bias ply construction.

5. Maximum permissible inflation pressure

This number is the greatest amount of air pressure that should be put in the tire. Do not exceed the maximum permissible inflation pressure. Refer to the Tire and Loading Information label for recommended inflation pressure.

6. Maximum load rating

This number indicates the maximum load in kilograms and pounds that can be carried by the tire. When replacing the tires on the vehicle, always use a tire that has the same load rating as the factory installed tire.

7. Uniform tire quality grading

Quality grades can be found where applicable on the tire sidewall between tread shoulder and maximum section width.

For example:

TREADWEAR 200

TRACTION AA

TEMPERATURE A

Tread wear

The tread wear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one-and-a-half times (1½) as well on the government course as a tire graded 100.

The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices and differences in road characteristics and climate.

These grades are molded on the sidewalls of passenger vehicle tires. The tires available as standard or optional equipment on your vehicle may vary with respect to grade.

Traction - AA, A, B & C

The traction grades, from highest to lowest, are AA, A, B and C. Those grades represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance.

WARNING

The traction grade assigned to this tire is based on straightahead braking traction tests, and does not include acceleration, cornering, hydroplaning, or peak traction characteristics.

Temperature - A, B & C

The temperature grades are A (the highest), B and C representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel.

Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

WARNING

The temperature grade for this tire is established for a tire that is properly inflated and not overloaded. Excessive speed, under-inflation, over-inflation, or excessive loading, either separately or in combination, can cause heat build-up and possible sudden tire failure. This may cause loss of vehicle control resulting in an accident.

Tire Terminology and Definitions

Air Pressure

The amount of air inside the tire pressing outward on the tire. Air pressure is expressed in pounds per square inch (psi) or kilopascal (kPa).

Accessory Weight

This means the combined weight of optional accessories. Some examples of optional accessories are automatic transmission, power seats, and air conditioning.

Aspect Ratio

The relationship of a tire's height to its width.

Belt

A rubber coated layer of cords that is located between the plies and the tread. Cords may be made from steel or other reinforcing materials.

Bead

The tire bead contains steel wires wrapped by steel cords that hold the tire onto the rim.

Bias Ply Tire

A pneumatic tire in which the plies are laid at alternate angles less than 90 degrees to the centerline of the tread.

Cold Tire Pressure

The amount of air pressure in a tire, measured in pounds per square inch (psi) or kilopascals (kPa) before a tire has built up heat from driving.

Curb Weight

This means the weight of a motor vehicle with standard and optional equipment including the maximum capacity of fuel, oil and coolant, but without passengers and cargo.

DOT Markings

A code molded into the sidewall of a tire signifying that the tire is in compliance with the U.S. Department of Transportation motor vehicle safety standards. The DOT code includes the Tire Identification Number (TIN), an alphanumeric designator which can also identify the tire manufacturer, production plant, brand and date of production.

GVWR

Gross Vehicle Weight Rating

GAWR FRT

Gross Axle Weight Rating for the Front Axle.

GAWR RR

Gross Axle Weight Rating for the Rear axle.

Intended Outboard Sidewall

The side of an asymmetrical tire, that must always face outward when mounted on a vehicle.

Kilopascal (kPa)

The metric unit for air pressure.

Light truck(LT) tire

A tire designated by its manufacturer as primarily intended for use on lightweight trucks or multipurpose passenger vehicles.

Load ratings

The maximum load that a tire is rated to carry for a given inflation pressure.

Load Index

An assigned number ranging from 1 to 279 that corresponds to the load carrying capacity of a tire.

Maximum Inflation Pressure

The maximum air pressure to which a cold tire may be inflated. The maximum air pressure is molded onto the sidewall.

Maximum Load Rating

The load rating for a tire at the maximum permissible inflation pressure for that tire.

Maximum Loaded Vehicle Weight

The sum of curb weight; accessory weight; vehicle capacity weight; and production options weight.

Normal Occupant Weight

The number of occupants a vehicle is designed to seat multiplied by 150 pounds (68 kg).

Occupant Distribution

Designated seating positions.

Outward Facing Sidewall

An asymmetrical tire has a particular side that faces outward when mounted on a vehicle. The outward facing sidewall bears white lettering or bears manufacturer, brand, and/or model name molding that is higher or deeper than the same moldings on the inner facing sidewall.

Passenger (P-Metric) tire

A tire used on passenger cars and some light duty trucks and multipurpose vehicles.

Ply

A layer of rubber-coated parallel cords.

Pneumatic tire

A mechanical device made of rubber, chemicals, fabric and steel or other materials, that, when mounted on an automotive wheel provides the traction and contains the gas or fluid that sustains the load.

Pneumatic options weight

The combined weight of installed regular production options weighing over 5 lb. (2.3 kg) in excess of the standard items which they replace, not previously considered in curb weight or accessory weight, including heavy duty breaks, ride levelers, roof rack, heavy duty battery, and special trim.

Recommended Inflation Pressure

Vehicle manufacturer's recommended tire inflation pressure as shown on the tire placard.

Radial Ply Tire

A pneumatic tire in which the ply cords that extend to the beads are laid at 90 degrees to the centerline of the tread.

Rim

A metal support for a tire and upon which the tire beads are seated.

Sidewall

The portion of a tire between the tread and the bead.

Speed Rating

An alphanumeric code assigned to a tire indicating the maximum speed at which a tire can operate.

Traction

The friction between the tire and the road surface. The amount of grip provided.

Tread

The portion of a tire that comes into contact with the road.

Treadwear Indicators

Narrow bands, sometimes called "wear bars", that show across the tread of a tire when only 1/16 inch of tread remains.

UTQGS

Uniform Tire Quality Grading Standards is a tire information system that provides consumers with ratings for a tire's traction, temperature and treadwear. Ratings are determined by tire manufacturers using government testing procedures. The ratings are molded into the sidewall of the tire.

Vehicle Capacity Weight

The number of designated seating positions multiplied by 150 lbs. (68 kg) plus the rated cargo and luggage load.

Vehicle Maximum Load on the Tire

Load on an individual tire due to curb and accessory weight plus maximum occupant and cargo weight.

Vehicle Normal Load on the Tire

Load on an individual tire that is determined by distributing to each axle its share of the curb weight, accessory weight, and normal occupant weight and dividing by 2.

Vehicle Placard

A label permanently attached to a vehicle showing the original equipment tire size and recommended inflation pressure.

All Season Tires

HYUNDAI specifies all season tires on some models to provide good performance for use all year round, including snowy and icy road conditions. All season tires are identified by ALL SEASON and/or M+S (Mud and Snow) on the tire sidewall. Snow tires have better snow traction than all season tires and may be more appropriate in some areas.

Summer Tires

HYUNDAI specifies summer tires on some models to provide superior performance on dry roads. Summer tire performance is substantially reduced in snow and ice. Summer tires do not have the tire traction rating M+S (Mud and Snow) on the tire side wall. If you plan to operate your vehicle in snowy or icy conditions, HYUNDAI recommends the use of snow tires or all season tires on all four wheels.

Snow Tires

If you equip your car with snow tires, they should be the same size and have the same load capacity as the original tires. Snow tires should be installed on all four wheels; otherwise, poor handling may result. Snow tires should carry 4 psi (28 kPa) more air pressure than the pressure recommended for the standard tires on the tire label on the driver's side of the center pillar, or up to the maximum pressure shown on the tire sidewall, whichever is less. Do not drive faster than 75 mph (120 km/h) when your vehicle is equipped with snow tires.

Radial-Ply Tires

Radial-ply tires provide improved tread life, road hazard resistance and smoother high speed ride. The radial-ply tires used on this vehicle are of belted construction, and are selected to complement the ride and handling characteristics of your vehicle.

Radial-ply tires have the same load carrying capacity, as bias-ply or bias belted tires of the same size, and use the same recommended inflation pressure. Mixing of radial-ply tires with bias-ply or bias belted tires is not recommended. Any combinations of radial-ply and bias-ply or bias belted tires when used on the same vehicle will seriously deteriorate vehicle handling. The best rule to follow is: Identical pairs of radial-ply tires should always be used as a set for the front tires and a set for the rear tires.

Longer wearing tires can be more susceptible to irregular tread wear. It is very important to follow the tire rotation interval in this chapter to achieve the tread life potential of these tires. Cuts and punctures in radial-ply tires are repairable only in the tread area, because of sidewall flexing. Consult your tire dealer for radial-ply tire repairs.

WARNING

Do not mix bias ply and radial ply tires under any circumstances. This may cause unusual handling characteristics that may cause loss of vehicle control resulting in an accident.

Low Aspect Ratio Tires (if equipped)

The aspect ratio is lower than 50 on low aspect ratio tires.

Because low aspect ratio tires are optimized for handling and braking, their sidewall is a little stiffer than a standard tire. Also low aspect ratio tires tend to be wider and consequently have a greater contact patch with the road surface. In some instances they may generate more road noise compared with standard tires.

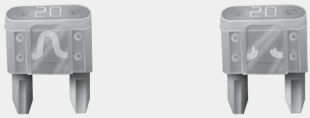
CAUTION

The side wall of a low aspect ratio tire is shorter than the normal one. Thus, the low-aspect wheel and tire are easily damaged. Follow the below instructions.

- **When driving on a rough road or driving off a road, be careful not to damage the tires and wheels. After driving, inspect the tires and wheels.**
- **When passing over a pothole, speed bump, manhole, or curb stone, drive the vehicle slowly so as not to damage the tires and wheels.**
- **When there is an impact on a tire, inspect the tire condition. Or, you can contact an authorized HYUNDAI dealer.**
- **Inspect the tire condition and pressure every 1,800 miles (3,000 km) to prevent tire damage.**
- **It is difficult to recognize a tire damage only with your eyes. When there is a slight hint of a tire damage, check and replace the tire to prevent the damage caused by air leakage.**
- **When a tire is damaged while driving on a rough road, off a road, or over obstacles, such as a pothole, manhole, or curb stone, your warranty does not cover the damage.**
- **The tire information is specified on the tire side wall.**

FUSES

■ Blade type



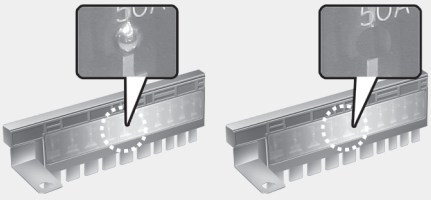
Normal Blown

■ Cartridge type



Normal Blown

■ Multi type



Normal Blown

OTM078035

A vehicle's electrical system is protected from electrical overload damage by fuses.

This vehicle has 2 (or 3) fuse panels, one located in the driver's side panel bolster, the other in the engine compartment.

If any of your vehicle's lights, accessories, or controls do not work, check the appropriate circuit fuse. If a fuse has blown, the element inside the fuse will be melted or broken.

If the electrical system does not work, first check the driver's side fuse panel. Before replacing a blown fuse, turn the engine and all switches off, and then disconnect the (-) battery terminal (For plug-in hybrid vehicle) or battery connector (For hybrid vehicle). Always replace a blown fuse with one of the same rating.

If the replacement fuse blows, this indicates an electrical problem. Avoid using the system involved. Immediately consult an authorized HYUNDAI dealer.

Information

Three kinds of fuses are used: blade type for lower amperage rating, cartridge type, and multi fuse for higher amperage ratings.

WARNING

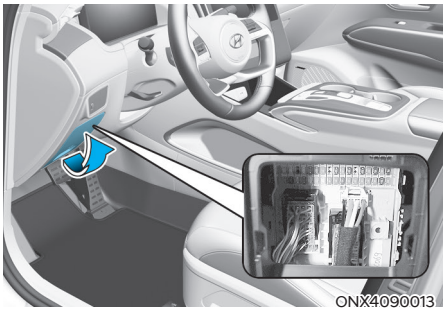
NEVER replace a fuse with anything but another fuse of the same rating.

- **A higher capacity fuse could cause damage and possibly cause a fire.**
- **Do not install a wire or aluminum foil instead of the proper fuse - even as a temporary repair. It may cause extensive wiring damage and possibly a fire.**

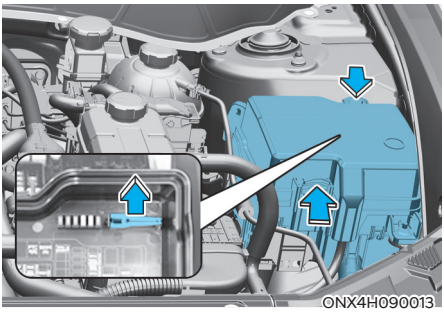
NOTICE

Do not use a screwdriver or any other metal object to remove fuses because it may cause a short circuit and damage the system.

Instrument Panel Fuse Replacement


ONX4090013

1. Turn the vehicle off.
2. Turn all other switches off.
3. Open the fuse panel cover.
4. Refer to the label on the inside of the fuse panel cover to locate the suspected fuse location.


ONX4H090013

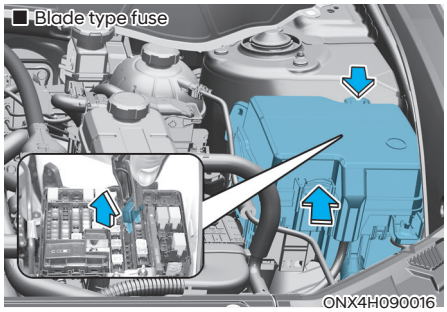
5. Pull the suspected fuse straight out. Use the removal tool provided in the engine compartment fuse panel cover.
6. Check the removed fuse; replace it if it is blown. Spare fuses are provided in the instrument panel fuse panels (or in the engine compartment fuse panel).
7. Push in a new fuse of the same rating, and make sure it fits tightly in the clips. If it fits loosely, consult an authorized HYUNDAI dealer.

In an emergency, if you do not have a spare fuse, use a fuse of the same rating from a circuit you may not need for operating the vehicle, such as the cigarette lighter fuse.

If the headlights or other electrical components do not work and the fuses are undamaged, check the fuse panel in the engine compartment. If a fuse is blown, it must be replaced with the same rating.

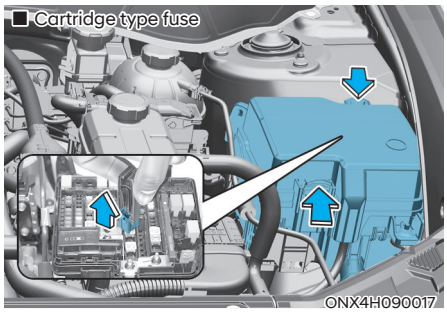
Engine Compartment Panel Fuse Replacement

■ Blade type fuse



ONX4H090016

■ Cartridge type fuse



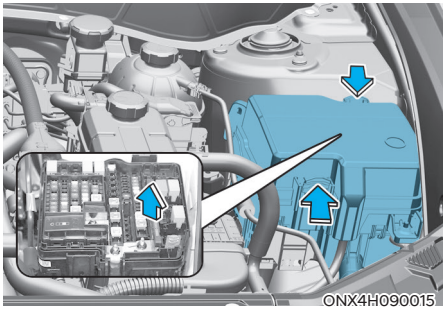
ONX4H090017

1. Turn the vehicle off.
2. Turn all other switches off.
3. Remove the fuse panel cover by pressing the tap and pulling up.
4. Check the removed fuse; replace it if it is blown. To remove or insert the fuse, use the removal tool in the engine compartment fuse panel cover.
5. Push in a new fuse of the same rating, and make sure it fits tightly in the clips. If it fits loosely, consult an authorized HYUNDAI dealer.

NOTICE

After checking the fuse panel in the engine compartment, securely install the fuse panel cover. You may hear a clicking sound if the cover is securely latched. If it is not securely latched, electrical failure may occur from water contact.

Multi fuse

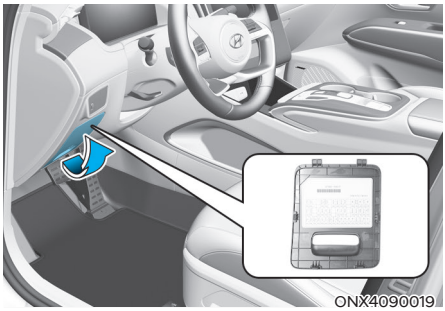


ONX4H090015

If the multi fuse is blown, consult an authorized HYUNDAI dealer.

Fuse/Relay Panel Description

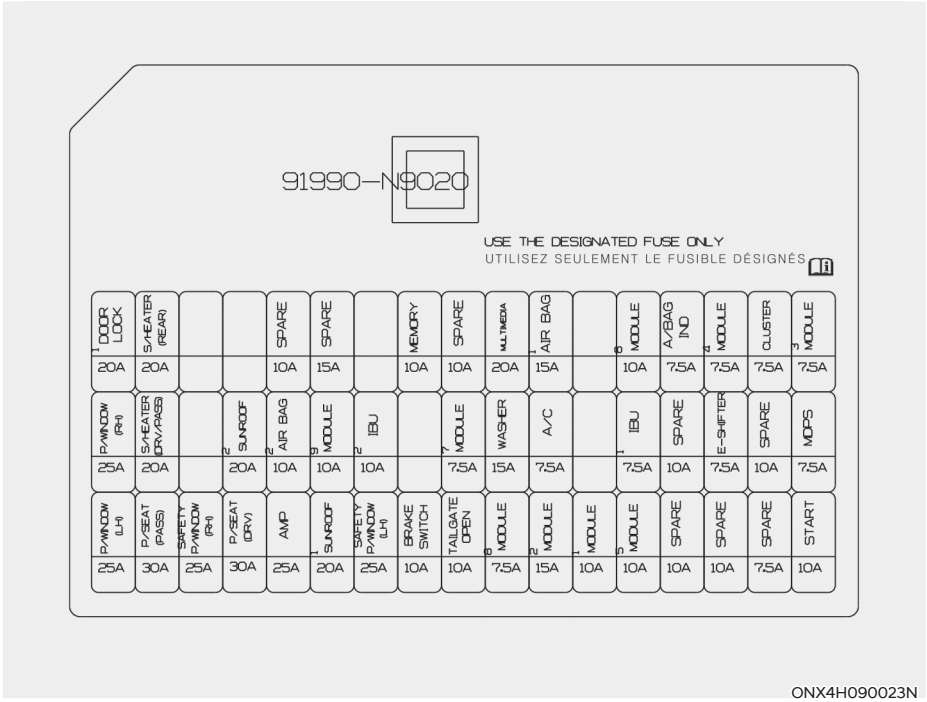
Instrument panel fuse panel (Hybrid vehicle/Plug-in hybrid vehicle)



Inside the fuse/relay box cover, you can find the fuse/relay label describing fuse/relay names and ratings.

Information

Not all fuse panel descriptions in this manual may be applicable to your vehicle; the information is accurate at the time of printing. When you inspect the fuse box on your vehicle, refer to the fuse box label.



ONX4H090023N

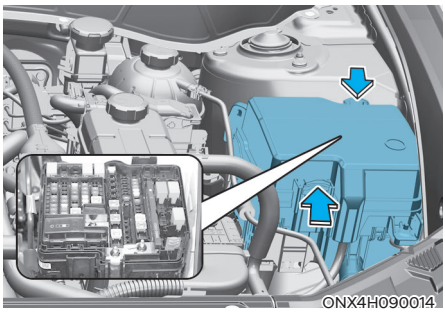
Instrument panel fuse panel

Fuse Name	Fuse rating	Circuit Protected
DR Lock	20A	Dead Lock Relay, Data Link Connector, Door Unlock/Lock Relay
P/WDW RH	25A	Power Window Main Switch, Passenger Power Window Switch (LHD)
P/WDW LH	25A	Power Window Main Switch, Passenger Power Window Switch (RHD)
Seat Warmer (RR)	20A	Rear Seat Warmer Control Module
Seat Warmer (DR/PS)	20A	Front Seat Warmer Control Module, Front Air Ventilation Seat Control Module
P/Seat(PS)	30A	Passenger Power Seat Switch, Passenger Seat Relay Unit
ECS	15A	ECS Unit
Safety Window RH	25A	Driver(LHD)/Passenger(RHD) Safety Power Window Module, Rear Safety Power Window Module RH
Sunroof1	20A	Sunroof Control Unit (Blind)
P/Seat(DR)	30A	Driver Power Seat Switch, Driver IMS Control Module
A/BAG2	10A	SRS Control Module
AMP	25A	AMP
Module17	10A	"Driver/Passenger Smart Key Outside Handle, Crash Pad Switch, Hazard Switch, UIP Sensor UIP Siren, Data Link Connector, Rain Sensor"
Sunroof1	20A	Sunroof Control Unit (Glass)
IBU2	10A	IBU, Ignition Switch
Safety Window LH	25A	Driver(RHD)/Passenger(LHD) Safety Power Window Module, Rear Safety Power Window Module LH
10A	10A	Side Rearview Mirror Folding/Unfolding Relay, ROA Sensor, Driver IMS Control Module, Power Liftgate Unit, Driver/ Passenger Door Mood Lamp, A/C Control Module, Console Mood Lamp, Instrument Cluster, Mood Lamp Unit, A/C Control Switch, Crash Pad Mood Lamp
Brake Switch	10A	IBU, Stop Lamp Switch

Fuse Name	Fuse rating	Circuit Protected
Module7	7.5A	IBU
PTG	10A	Liftgate Relay
Multi Media	20A	Audio, A/V & Navigation Head Unit
Washer	15A	Multifunction Switch
Module8	7.5A	Front/Rear Seat Warmer Control Module, Front Air Ventilation Seat Control Module
A/BAG1	15A	SRS Control Module
A/C	7.5A	Electronic A/C Compressor, Front/Rear A/C Control Switch A/C Control Module, E/R Junction Block (RLY.10, RLY.13)
Module2	15A	Front USB Charge Connector, Rear USB Charge Connector
Module1	10A	E-Call Unit, Audio, A/V & Navigation Head Unit, AMP, Audio Keyboard, A/V & Navigation Keyboard, IBU, BMS, ADAS Parking ECU Unit, Power Outside Mirror Switch
Module6	10A	Front Console Switch, EPB Switch
IBU1	7.5A	IBU
Module5	10A	Front/Rear Seat Warmer Control Module, E-Call Unit, AMP, Driver IMS Control Module, Front/Rear A/C Control Switch, Audio, A/V & Navigation Head Unit, Wireless Charger Unit, Front Air Ventilation Seat Control Module, Data Link Connector, A/C Control Module, Heat Lamp LH/RH, Electro Chromic Mirror
A/BAG IND.	7.5A	Instrument Cluster, Overhead Console Lamp
IG3 4	10A	HPCU
IG3 2	10A	Electronic Water Pump (HEV)
Module4	7.5A	Front View Camera, IBU, AWD ECM, VESS Unit, Crash Pad Switch, ECS Unit, ADAS Parking ECU
E-Shifter	7.5A	Electronic Shift Switch, SCU

Fuse Name	Fuse rating	Circuit Protected
IG3 3	10A	BMS, E/R Junction Block (RLY.2)
Cluster	7.5A	Instrument Cluster
Module3	7.5A	Stop Lamp Switch, Overhead Console Lamp, Multifunction Switch (R-MDPS)
MDPS	7.5A	MDPS Unit (Column Type)

Engine compartment fuse panel (Hybrid vehicle/Plug-in hybrid vehicle)

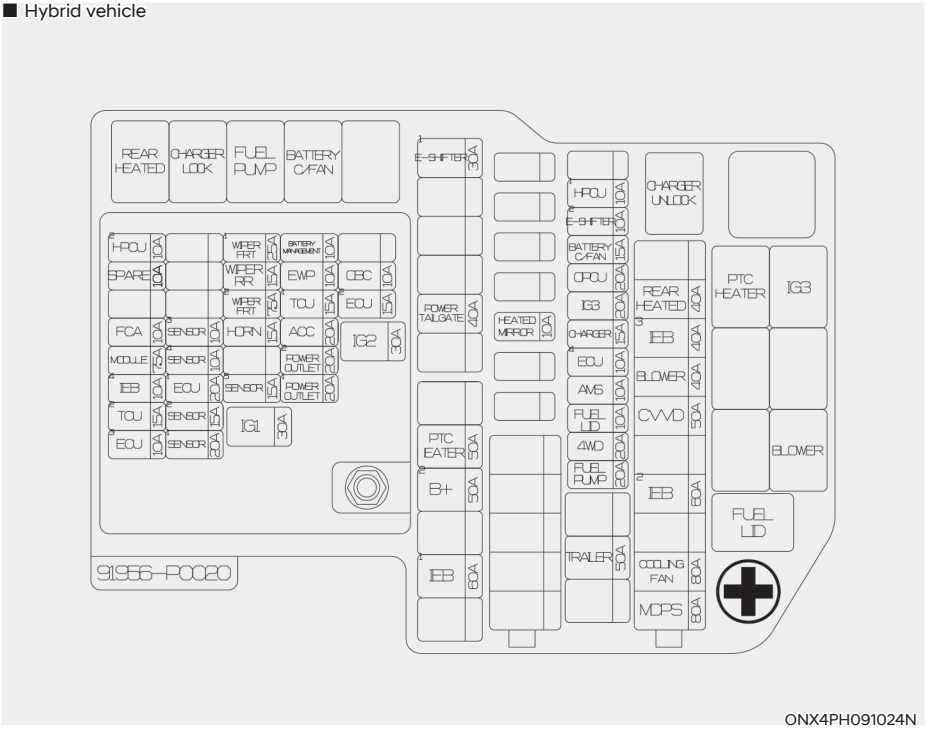


Inside the fuse/relay box cover, you can find the fuse/relay label describing fuse/relay names and ratings.

Information

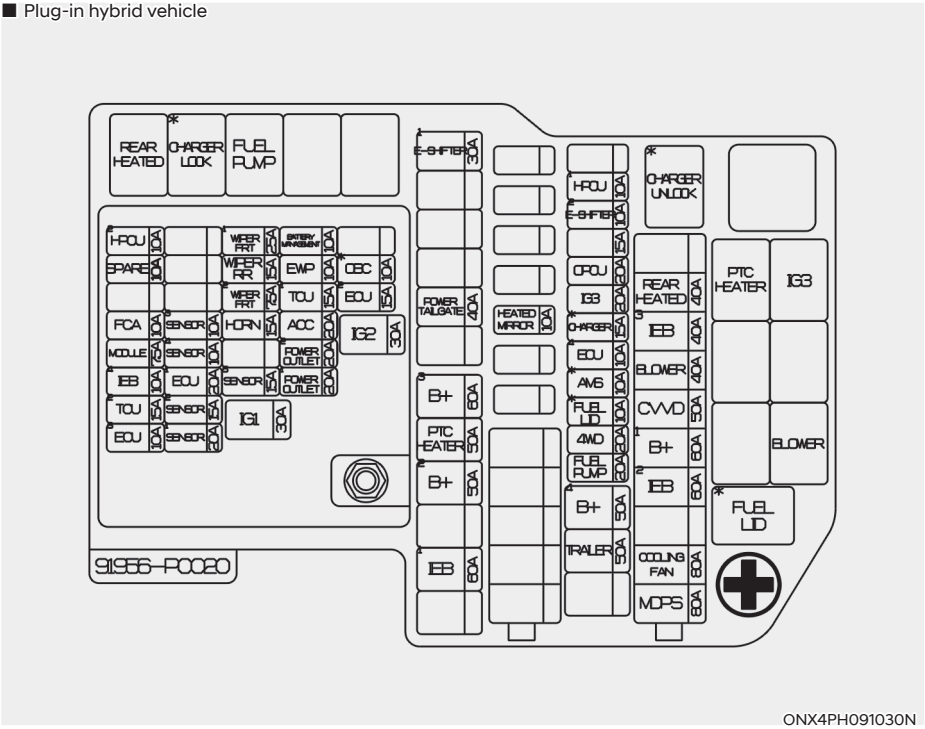
Not all fuse panel descriptions in this manual may be applicable to your vehicle; the information is accurate at the time of printing. When you inspect the fuse panel in your vehicle, refer to the fuse panel label.

■ Hybrid vehicle



ONX4PH091024N

■ Plug-in hybrid vehicle



ONX4PH091030N

Engine compartment fuse panel

Fuse Name	Fuse rating	Circuit Protected
MDPS	80A/100A	MDPS Unit (Column Type-80A) / MDPS Unit (Rack Type-100A)
C/FAN	80A	Cooling Fan Motor
B+1	60A	ICU Junction Block (IPS01, IPS02, IPS03, IPS04, IPS05)
B+3	60A	ICU Junction Block (Power Window Main Relay, Fuse : F2, F3, F5, F6, F8, F9, F11, F12, F18, F15)
CVVD	50A	CVVD Actuator
Bower	40A	E/R Junction Block (RLY.10)
IEB3	40A	IEB Unit
Rear Defogger	40A	E/R Junction Block (RLY.14)
Trailer1	50A	Trailer Connector Unit
B+4	50A	ICU Junction Block (Long Term Load Latch Relay, Fuse : F1, F4, F14, F17, F20, F21, F24, F27)
IEB2	60A	IEB Unit
IEB1	60A	IEB Unit
B+2	50A	ICU Junction Block (IPS06, IPS07, IPS08, IPS10, IPS11)
PTC Heater	50A	E/R Junction Block (RLY.13)
PTG	40A	Power Liftgate Unit
E-Shifter1	30A	SCU
Fuel Pump	20A	E/R Junction Block (RLY.7)
AWD	20A	AWD ECM
ECU4	10A	ECM

Fuse Name	Fuse rating	Circuit Protected
IG3	20A	E/R Junction Block (RLY.3)
OPCU	20A	OPU
BATT C/FAN	15A	E/R Junction Block (RLY.2)
E-Shifter2	10A	SCU, Electronic Shift Switch (SBW)
HPCU1	10A	HPCU
Trailer2	20A	Trailer Connector Unit
RR HTD	10A	Driver Power Outside Mirror, Passenger Power Outside Mirror
IG1	30A	PCB Block (PDM(IG1) Relay)
IG2	30A	PCB Block (PDM(IG2) Relay)
ECU3	10A	CVVD Actuator, ECM
TCU2	15A	TCM, OPU
IEB4	10A	IEB Unit
Module	7.5A	Electronic Water Pump (Engine)
AEB	10A	Front Radar
HPCU2	10A	HPCU
Sensor1	20A	Ignition Coil #1~#4
Sensor2	15A	Oxygen Sensor (Up/Down)
ECU1	20A	ECM
Sensor4	10A	E/R Junction Block (RLY.7)
Sensor3	10A	Oil Control Valve #1~#2, Purge Control Solenoid Valve, RCV Control Solenoid Valve, Variable Oil Pump, Cooling Fan Motor

Fuse Name	Fuse rating	Circuit Protected
B/Horn	15A	PCB Block (Burglar Alarm Horn Relay)
MDPS2	10A	MDPS Unit (Rack Type)
Sensor5	15A	Active Purge Pump
Horn	15A	PCB Block (Horn Relay)
Wiper(FR)2	7.5A	IBU
Wiper(RR)	15A	ICU Junction Block (Rear Wiper Relay)
Wiper(FR)1	25A	PCB Block (Front Wiper(Low) Relay), Front Wiper Motor
P/Outlet1	20A	Luggage Power Outlet
P/Outlet2	20A	Front Power Outlet
ACC	20A	ICU Junction Block (Fuse : F33, F36)
TCU1	15A	TCM
EWP	10A	Electronic Water Pump (Engine)
BMS	10A	BMS
ECU2	15A	ECM

LIGHT BULBS

Consult an authorized HYUNDAI dealer to replace most vehicle light bulbs. It is difficult to replace vehicle light bulbs because other parts of the vehicle must be removed before you can get to the bulb. This is especially true for removing the headlight assembly to get to the bulb(s).

Removing/installing the headlight assembly can result in damage to the vehicle.

WARNING

- **Prior to working on a light, depress the foot brake, shift to P (Park), apply the parking brake, set the Engine Start/Stop button to the OFF position and take the key with you when leaving the vehicle to avoid sudden movement of the vehicle and to prevent possible electric shock.**
- **Be aware the bulbs may be hot and may burn your fingers.**

NOTICE

Be sure to replace the burned-out bulb with one of the same wattage rating. Otherwise, it may cause damage to the fuse or electrical wiring system.

NOTICE

To prevent damage, do not clean the headlight lens with chemical solvents or strong detergents.

Information

The headlight and tail lamp lenses could appear frosty if the vehicle is washed after driving or the vehicle is driven at night in wet weather. This condition is caused by temperature difference between the lamp inside and outside and, it does not indicate a problem with your vehicle. When moisture condenses in the lamp, it will be removed after driving with the headlight on. The removable level may differ depending on lamp size, lamp position and environmental condition. However, if moisture is not removed, have your vehicle inspected by an authorized HYUNDAI dealer.

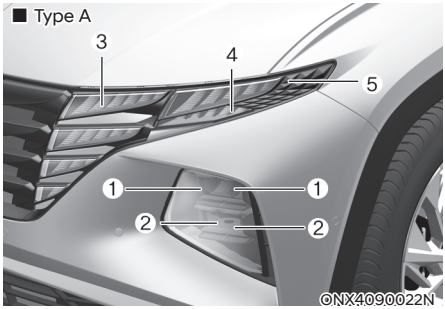
Information

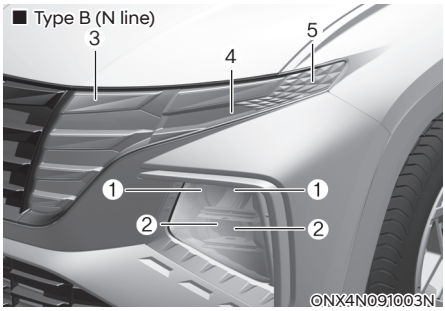
- **A normally functioning lamp may flicker momentarily to stabilize the vehicle's electrical control system. However, if the lamp goes out after flickering momentarily, or continues to flicker, have the system checked by an authorized HYUNDAI dealer.**
- **The position lamp may not turn on when the position lamp switch is turned on, but the position lamp and headlight switch may turn on when the headlight switch is turned on. This may be caused by network failure or vehicle electrical control system malfunction. If this occurs, have the system checked by an authorized HYUNDAI dealer.**

Information

The headlight aiming should be adjusted after an accident or after the headlight assembly is reinstalled at an authorized HYUNDAI dealer.

Headlight, Position Lamp, Turn Signal Lamp, Daytime Running Light (DRL) Replacement





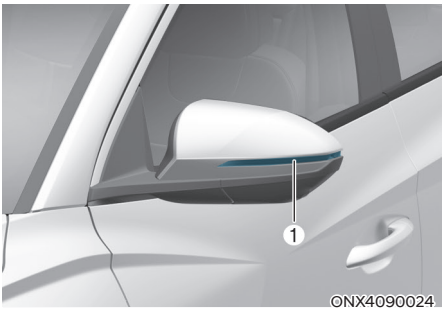
(1) Headlight (Low)
(2) Headlight (High)
(3) Daytime running light/Position light
(4) Turn signal lamp
(5) Side marker

- Always handle them carefully, and avoid scratches and abrasions. If the bulbs are lit, avoid contact with liquids.
- Never touch the glass with bare hands. Residual oil may cause the bulb to overheat and burst when lit.
- A bulb should be operated only when installed in a headlight.
- If a bulb becomes damaged or cracked, replace it immediately and carefully dispose of it.

Lamps

If the LED lamp does not operate, have the vehicle checked by an authorized HYUNDAI dealer.

Side Repeater Lamp Replacement



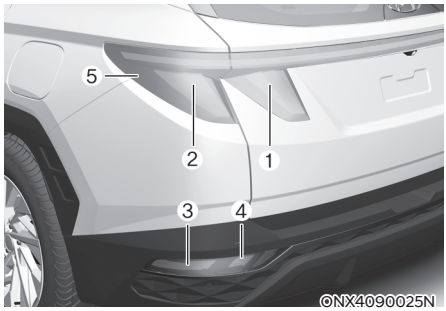
If the LED lamp (1) does not operate, have the system inspected by an authorized HYUNDAI dealer.

The LED lamps cannot be replaced as a single unit because it is an integrated unit. The LED lamps has to be replaced with the unit.

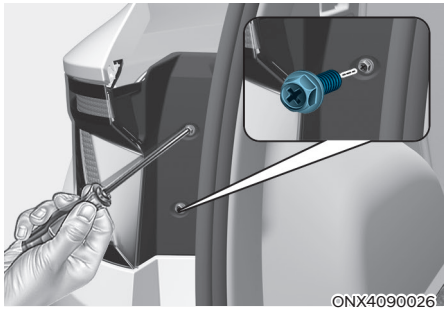
A skilled technician should check or repair the LED lamp, for it may damage related parts of the vehicle.

Rear Combination Lamp Replacement

Type A

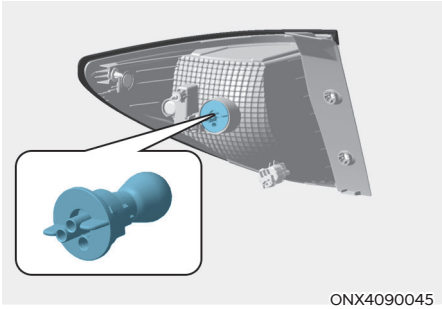


(1) Tail lamp
(2) Tail/Stop lamp
(3) Turn signal lamp
(4) Backup lamp
(5) Rear side marker

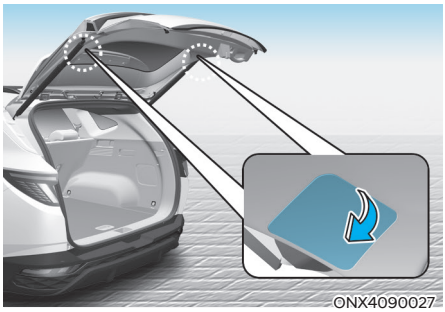


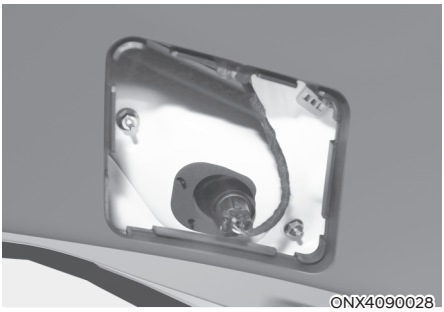
Stop/Tail lamp (Outside), Reverse lamp

1. Turn off the engine.
2. Open the liftgate.
3. Loosen the lamp assembly retaining screws with a cross-tip screwdriver.
4. Remove the rear combination lamp assembly from the body of the vehicle.
5. Remove the socket from the assembly by turning the socket counterclockwise until the tabs on the socket align with the slots on the assembly.



6. Remove the bulb from the socket by pressing it in and rotating it counterclockwise until the tabs on the bulb align with the slots in the socket. Pull the bulb out of the socket.
7. Insert a new bulb by inserting it into the socket and rotating it until it locks into place.
8. Install the socket into the assembly by aligning the tabs on the socket with the slots in the assembly. Push the socket into the assembly and turn the socket clockwise.
9. Reinstall the lamp assembly to the body of the vehicle.





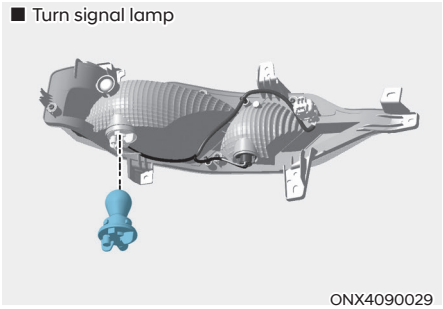
Tail lamp (Inside)

1. Turn off the engine.
2. Open the liftgate.
3. Remove the service cover using a flat-blade screwdriver.
4. Remove the socket from the assembly by turning the socket counterclockwise until the tabs on the socket align with the slots on the assembly.
5. Remove the bulb from the socket by pressing it in and rotating it counterclockwise until the tabs on the bulb align with the slots in the socket. Pull the bulb out of the socket.
6. Insert a new bulb by inserting it into the socket and rotating it until it locks into place.
7. Install the socket into the assembly by aligning the tabs on the socket with the slots in the assembly. Push the socket into the assembly and turn the socket clockwise.
8. Reinstall the lamp assembly to the body of the vehicle.

Turn signal lamp, Reverse lamp

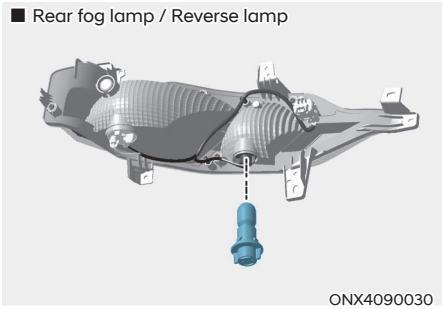
1. Disconnect the (-) battery terminal (For plug-in hybrid vehicle) or battery connector (For hybrid vehicle).
2. Loosen the retaining clips under the bumper and screws on the wheel house trim.
3. Prey trim under the bumper toward the vehicle.

■ Turn signal lamp



ONX4090029

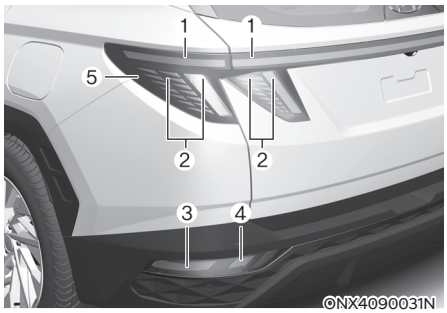
■ Rear fog lamp / Reverse lamp



ONX4090030

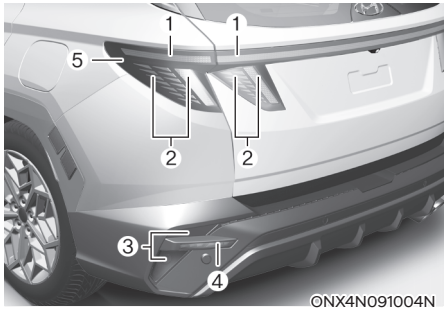
4. Remove the socket from the assembly by turning the socket counterclockwise until the tabs on the socket align with the slots on the assembly.
5. Remove the bulb by pulling it straight out.
6. Insert a new bulb in the socket.
7. Reinstall the light assembly to the body of the vehicle.

Type B



ONX4090031N

Type C (N Line)



ONX4N091004N

(1) Tail lamp
(2) Tail/Stop lamp
(3) Turn signal lamp
(4) Backup lamp
(5) Rear side marker

Tail / Stop lamp, Tail lamp

If these lamps do not operate, have the vehicle checked by an authorized HYUNDAI dealer.

High Mounted Stop Lamp Replacement

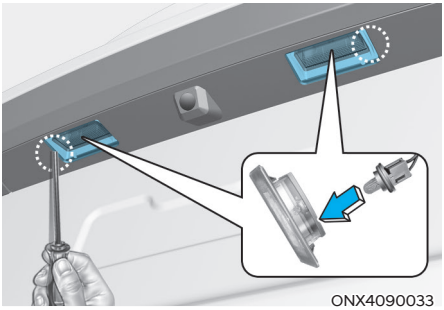


If the LED lamp (1) does not operate, have the system inspected by an authorized HYUNDAI dealer.

The LED lamps cannot be replaced as a single unit because it is an integrated unit. The LED lamps has to be replaced with the unit.

A skilled technician should check or repair the LED lamp, for it may damage related parts of the vehicle.

License Plate Lamp Replacement



1. Using a flat-blade screwdriver, gently pry the lens cover from the lamp housing.
2. Remove the bulb by pulling it straight out.
3. Install a new bulb.
4. Reinstall in the reverse order.

Interior Light Replacement

Map/Personal lamp (LED)



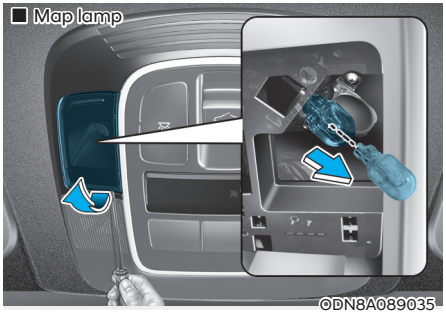


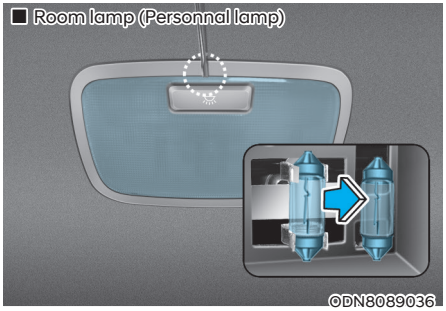
If the LED lamp does not operate, have the system inspected by an authorized HYUNDAI dealer.

The LED lamps cannot be replaced as a single unit because it is an integrated unit. The LED lamps has to be replaced with the unit.

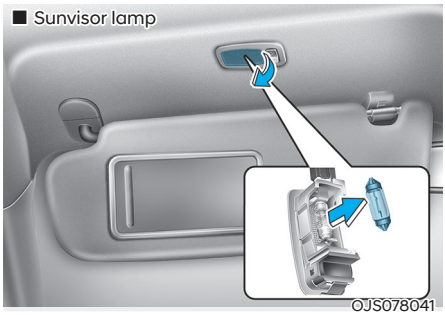
A skilled technician should check or repair the LED lamp, for it may damage related parts of the vehicle.

Room lamp, Sunvisor lamp and Luggage compartment lamp (Bulb type)



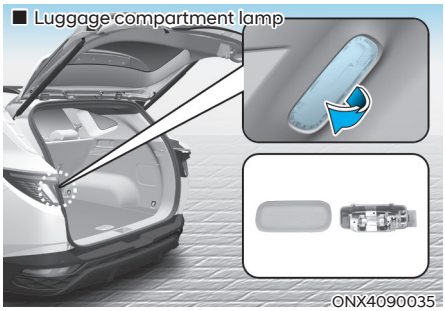


■ Sunvisor lamp



OJS078041

■ Luggage compartment lamp



ONX4090035

1. Using a flat-head screwdriver, gently pry the lens from the interior light housing.
2. Remove the bulb by pulling it straight out.
3. Install a new bulb into the socket.
4. Align the lens tabs with the interior light housing notches and snap the lens into place.

NOTICE

Be careful not to damage the cover, tab, and plastic housing.

APPEARANCE CARE

Exterior Care

NOTICE

If you park your vehicle near a stainless steel sign or glass facade building, the vehicle's exterior plastic parts such as a bumper, spoiler, garnish, lamp or outside rearview mirror might be damaged due to sunlight reflected from the sign or building. To prevent damage of the exterior plastic parts, you should avoid parking in areas where light may be reflected or use a car cover. (The exterior plastic parts applied to your vehicle may vary.)

Exterior general caution

It is very important to follow the label directions when using any chemical cleaner or polish. Read all warning and caution statements that appear on the label.

Finish maintenance

Washing

To help protect your vehicle's finish from rust and deterioration, wash it thoroughly and frequently at least once a month with lukewarm or cold water.

If you use your vehicle for off-road driving, you should wash it after each off-road trip. Pay special attention to the removal of any accumulation of salt, dirt, mud, and other foreign materials. Make sure the drain holes in the lower edges of the doors and rocker panels are kept clear and clean.

Insects, tar, tree sap, bird droppings, industrial pollution and similar deposits can damage your vehicle's finish if not removed immediately.

Even prompt washing with plain water may not completely remove all these deposits. A mild soap, safe for use on painted surfaces, should be used.

After washing, rinse the vehicle thoroughly with lukewarm or cold water. Do not allow soap to dry on the finish.

High-pressure washing

- When using high-pressure washers, make sure to maintain sufficient distance from the vehicle.

  Insufficient clearance or excessive pressure can lead to component damage or water penetration.
- Do not spray the camera, sensors or its surrounding area directly with a high pressure washer. Shock applied from high pressure water may cause the device to not operate normally.
- Do not bring the nozzle tip close to boots (rubber or plastic covers) or connectors as they may be damaged if they come into contact with high pressure water.

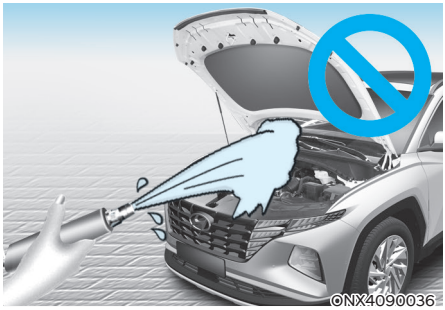
WARNING

After washing the vehicle, test the brakes while driving slowly to see if they have been affected by water before getting on the road. If braking performance is impaired, dry the brakes by applying them lightly while maintaining a slow forward speed.

NOTICE

- **Do not use strong soap, chemical detergents or hot water, and do not wash the vehicle in direct sunlight or when the body of the vehicle is warm.**
- **Be careful when washing the side windows of your vehicle.**
- **Especially, with high-pressure water, water may leak through the windows and wet the interior.**
- **To prevent damage to the plastic parts, do not clean with chemical solvents or strong detergents.**
- **To prevent damage to the charging door, make sure to close and lock the vehicle doors when washing (high-pressure washing, automatic car washing, etc.) the vehicle.**

NOTICE



- **Water washing in the engine compartment including high pressure water washing may cause the failure of electrical circuits located in the engine compartment.**
- **Never allow water or other liquids to come in contact with electrical/ electronic components inside the vehicle as this may damage them.**

NOTICE

Matte paint finish vehicle (if equipped)

Automatic car wash which uses rotating brushes should not be used as this can damage the surface of your vehicle. A steam cleaner which washes the vehicle surface at high temperature may result the oil to adhere and leave stains that is difficult to remove.

Use a soft cloth (for example, microfiber towel or sponge) when washing your vehicle and dry with a microfiber towel. When you hand wash your vehicle, you should not use a cleaner that finishes with wax. If the vehicle surface is too dirty (sand, dirt, dust, contaminant, etc.), clean the surface with water before washing the car.

Waxing

A good coat of wax is a barrier between your paint and contaminate. Keeping a good coat of wax on your vehicle will help protect it.

Wax the vehicle when water will no longer bead on the paint.

Always wash and dry the vehicle before waxing. Use a good quality liquid or paste wax, and follow the manufacturer's instructions. Wax all metal trim to protect it and to maintain its luster.

Removing oil, tar, and similar materials with a spot remover will usually strip the wax from the finish. Be sure to re-wax these areas even if the rest of the vehicle does not yet need waxing.

NOTICE

- **Wiping dust or dirt off the body with a dry cloth will scratch the finish.**
- **Do not use steel wool, abrasive cleaners, or strong detergents containing highly alkaline or caustic agents on chrome-plated or anodized aluminum parts. This may result in damage to the protective coating and cause discoloration or paint deterioration.**

NOTICE

Matte paint finish vehicle (if equipped)

Do not use any polish protector such as a detergent, an abrasive and a polish. In case wax is applied, remove the wax immediately using a silicon remover and if any tar or tar contaminant is on the surface use a tar remover to clean. However, be careful not to apply too much pressure on the painted area.

Finish damage repair

Deep scratches or stone chips in the painted surface must be repaired promptly. Exposed metal will quickly rust and may develop into a major repair expense.

NOTICE

If your vehicle is damaged and requires any metal repair or replacement, be sure the body shop applies anti-corrosion materials to the parts repaired or replaced.

NOTICE

Matte paint finish vehicle (if equipped)

In case of matte paint finish vehicles, it is impossible to modify only the damaged area and repair of the whole part is necessary. If the vehicle is damaged and painting is required, have your vehicle maintained and repaired by an authorized HYUNDAI dealer. Take extreme care, as it is difficult to restore the quality after the repair.

Bright-metal maintenance

- To remove road tar and insects, use a tar remover, not a scraper or other sharp object.
- To protect the surfaces of brightmetal parts from corrosion, apply a coating of wax or chrome preservative and rub to a high luster.
- During winter weather or in coastal areas, cover the bright metal parts with a heavier coating of wax or preservative. If necessary, coat the parts with non-corrosive petroleum jelly or other protective compound.

Underbody maintenance

Corrosive materials used for ice and snow removal and dust control may collect on the underbody. If these materials are not removed, accelerated rusting can occur on underbody parts such as the fuel lines, frame, floor pan and exhaust system, even though they have been treated with rust protection.

Thoroughly flush the vehicle underbody and wheel openings with lukewarm or cold water once a month, after off-road driving and at the end of each winter. Pay special attention to these areas because it is difficult to see all the mud and dirt. It will do more harm than good to wet down the road grime without removing it. The lower edges of doors, rocker panels, and frame members have drain holes that should not be allowed to clog with dirt; trapped water in these areas can cause rusting.

WARNING

After washing the vehicle, test the brakes while driving slowly to see if they have been affected by water. If braking performance is impaired, dry the brakes by applying them lightly while maintaining a slow forward speed.

Aluminum wheel maintenance

The aluminum wheels are coated with a clear protective finish.

NOTICE

- **Do not use abrasive cleaner, polishing compound, solvent, or wire brushes on aluminum wheels.**
- **Clean the wheel when it has cooled.**
- **Use only a mild soap or neutral detergent, and rinse thoroughly with water. Also, clean the wheels after driving on salted roads.**
- **Do not wash the wheels with high-speed car wash brushes.**
- **Do not use any cleaners containing acid or alkaline detergents.**

Corrosion protection

Protecting your vehicle from corrosion

By using the most advanced design and construction practices to combat corrosion, HYUNDAI produces vehicles of the highest quality. However, this is only part of the job. To achieve the long-term corrosion resistance your vehicle can deliver, the owner's cooperation and assistance is also required.

Common causes of corrosion

The most common causes of corrosion on your vehicle are:

- Road salt, dirt and moisture that is allowed to accumulate underneath the vehicle.
- Removal of paint or protective coatings by stones, gravel, abrasion or minor scrapes and dents which leave unprotected metal exposed to corrosion.

High-corrosion areas

If you live in an area where your vehicle is regularly exposed to corrosive materials, corrosion protection is particularly important. Some of the common causes of accelerated corrosion are road salts, dust control chemicals, ocean air and industrial pollution.

Moisture breeds corrosion

Moisture creates the conditions in which corrosion is most likely to occur. For example, corrosion is accelerated by high humidity, particularly when temperatures are just above freezing. In such conditions, the corrosive material is kept in contact with the vehicle surfaces by moisture that is slow to evaporate.

Mud is particularly corrosive because it is slow to dry and holds moisture in contact with the vehicle. Although the mud appears to be dry, it can still retain moisture and promote corrosion.

High temperatures can also accelerate corrosion of parts that are not properly ventilated so the moisture can be dispersed. For all these reasons, it is particularly important to keep your vehicle clean and free of mud or accumulations of other materials. This applies not only to the visible surfaces but particularly to the underside of the vehicle.

To help prevent corrosion

Keep your vehicle clean

The best way to prevent corrosion is to keep your vehicle clean and free of corrosive materials. Attention to the underside of the vehicle is particularly important.

- If you live in a high-corrosion area — where road salts are used, near the ocean, areas with industrial pollution, acid rain, etc.—, you should take extra care to prevent corrosion. In winter, hose off the underside of your vehicle at least once a month and be sure to clean the underside thoroughly when winter is over.
- When cleaning underneath the vehicle, pay particular attention to the components under the fenders and other areas that are hidden from view. Do a thorough job; just dampening the accumulated mud rather than washing it away will accelerate corrosion rather than prevent it. Water under high pressure and steam are particularly effective in removing accumulated mud and corrosive materials.
- When cleaning lower door panels, rocker panels and frame members, be sure that drain holes are kept open so that moisture can escape and not be trapped inside to accelerate corrosion.

Keep your garage dry

Don't park your vehicle in a damp, poorly ventilated garage. This creates a favorable environment for corrosion. This is particularly true if you wash your vehicle in the garage or drive it into the garage when it is still wet or covered with snow, ice or mud. Even a heated garage can contribute to corrosion unless it is well ventilated so moisture is dispersed.

Keep paint and trim in good condition

Scratches or chips in the finish should be covered with "touch-up" paint as soon as possible to reduce the possibility of corrosion. If bare metal is showing through, the attention of a qualified body and paint shop is recommended.

Bird droppings are highly corrosive and may damage painted surfaces in just a few hours. Always remove bird droppings as soon as possible.

Interior Care

Interior general precautions

Prevent caustic solutions such as perfume and cosmetic oil, from contacting the interior parts because they may cause damage or discoloration. If they do contact the interior parts, wipe them off immediately. See the instructions for the proper way to clean vehicle interior surfaces.

NOTICE

- **Never allow water or other liquids to come in contact with electrical/ electronic components inside the vehicle as this may damage them.**
- **When cleaning leather products (steering wheel, seats etc.), use neutral detergents or low alcohol content solutions. If you use high alcohol content solutions or acid/ alkaline detergents, the color of the leather may fade or the surface may get stripped off.**

Cleaning the upholstery and interior trim

Vehicle interior surfaces (if equipped)

Remove dust and loose dirt from interior surfaces with a whisk broom or a vacuum cleaner.

If necessary, clean interior surfaces with a mixture of warm water and mild non-detergent cleaner (test all cleaners on a concealed area before use).

Fabric (if equipped)

Remove dust and loose dirt from fabric with a whisk broom or vacuum cleaner. Clean with a mild soap solution recommended for upholstery or carpets. Remove fresh spots immediately with a fabric spot cleaner. If fresh spots do not receive immediate attention, the fabric can be stained and its color can be affected. Also, its fire-resistant properties can be reduced if the material is not properly maintained.

NOTICE

Using anything but recommended cleaners and procedures may affect the fabric's appearance and fire-resistant properties.

Leather (if equipped)

- Features of seat leather
  - Leather is made from the outer skin of an animal, which goes through a special process to be available for use. Since it is a natural product, each part differs in thickness or density.

    Wrinkles may appear as a natural result of stretching and shrinking depending on the temperature and humidity.
  - The seat is made of stretchable fabric to improve comfort.
  - The parts contacting the body are curved and the side supporting area is high which provides driving comfort and stability.
  - Wrinkles may appear naturally from usage. It is not a fault of the products.

NOTICE

- **Wrinkles or abrasions which appear naturally from usage are not covered by warranty.**
- **Belts with metallic accessories, zippers or keys inside the back pocket may damage the seat fabric.**
- **Make sure not to wet the seat. It may change the nature of natural leather.**
- **Jeans or clothes which could bleach may contaminate the surface of the seat covering fabric.**

- Caring for the leather seats
  - Vacuum the seat periodically to remove dust and sand on the seat. It will prevent abrasion or damage of the leather and maintain its quality.
  - Wipe the natural leather seat cover often with dry or soft cloth.
  - Use of proper leather protector may prevent abrasion of the cover and helps maintain the color. Be sure to read the instructions and consult a specialist when using leather coating or protective agent.
  - Light colored (beige, cream beige) leather is easily contaminated and the stain is noticeable. Clean the seats frequently.
  - Avoid wiping with wet cloth. It may cause the surface to crack.
- Cleaning the leather seats
  - Remove all contaminations instantly. Refer to instructions below for removal of each contaminant.
  - Cosmetic products (sunscreen, foundation, etc.)

    Apply cleansing cream on a cloth and wipe the contaminated spot. Wipe off the cream with a wet cloth and remove water with a dry cloth.
  - Beverages (coffee, soft drink, etc.)

    Apply a small amount of neutral detergent and wipe until contaminations do not smear.
  - Oil

    Remove oil instantly with absorbable cloth and wipe with stain remover used only for natural leather.
  - Chewing gum

    Harden the gum with ice and remove gradually.

Cleaning the seat belt webbing

Clean the belt webbing with any mild soap solution recommended for cleaning upholstery or carpet. Follow the instructions provided with the soap. Do not bleach or re-dye the webbing because this may weaken the seat belt.

Cleaning the interior window glass

If the interior glass surfaces of the vehicle become fogged (that is, covered with an oily, greasy or waxy film), they should be cleaned with glass cleaner. Follow the directions on the glass cleaner container.

NOTICE

Do not scrape or scratch the inside of the rear window. This may result in damage to the rear window defroster grid.

EMISSION CONTROL SYSTEM

The emission control system of your vehicle is covered by a written limited warranty. Please see the warranty information contained in the Owner's Handbook & Warranty Information booklet in your vehicle.

Your vehicle is equipped with an emission control system to meet all applicable emission regulations. There are three emission control systems, as follows.

(1) Crankcase emission control system
(2) Evaporative emission control system
(3) Exhaust emission control system

In order to ensure the proper function of the emission control systems, it is recommended that you have your vehicle inspected and maintained by an authorized HYUNDAI dealer in accordance with the maintenance schedule in this manual.

NOTICE

For the Inspection and Maintenance Test (with Electronic Stability Control (ESC) system)

- **To prevent the vehicle from misfiring during dynamometer testing, turn the Electronic Stability Control (ESC) system off by pressing the ESC switch (ESC OFF light illuminated).**
- **After dynamometer testing is completed, turn the ESC system back on by pressing the ESC switch again.**

1. Crankcase Emission Control System

The positive crankcase ventilation system is employed to prevent air pollution caused by blow-by gases being emitted from the crankcase. This system supplies fresh filtered air to the crankcase through the air intake hose. Inside the crankcase, the fresh air mixes with blow-by gases, which then pass through the PCV valve into the induction system.

2. Evaporative Emission Control System Including Onboard Refueling Vapor Recovery (ORVR)

The Evaporative Emission Control System is designed to prevent fuel vapors from escaping into the atmosphere. The ORVR system is designed to allow the vapors from the fuel tank to be loaded into a canister while refueling at the gas station, preventing the escape of fuel vapors into the atmosphere.

Canister

Fuel vapors generated inside the fuel tank are absorbed and stored in the onboard canister. When the engine is running, the fuel vapors absorbed in the canister are drawn into the surge tank through the purge control solenoid valve.

Purge Control Solenoid Valve (PCSV)

The purge control solenoid valve is controlled by the Engine Control Module (ECM); when the engine coolant temperature is low during idling, the PCSV closes so that evaporated fuel is not taken into the engine. After the engine warms-up during ordinary driving, the PCSV opens to introduce evaporated fuel to the engine.

3. Exhaust Emission Control System

The Exhaust Emission Control System is a highly effective system which controls exhaust emissions while maintaining good vehicle performance.

When the engine starts or fails to start, excessive attempts to restart the engine may cause damage to the emission system.

Engine exhaust (carbon monoxide) precautions

- Carbon monoxide can be present with other exhaust fumes. If you smell exhaust fumes of any kind in your vehicle, drive with all the windows fully open. Have your vehicle checked and repaired immediately.

WARNING

Engine exhaust gases contain carbon monoxide (CO). Though colorless and odorless, it is dangerous and could be lethal if inhaled. Follow the instructions on this page to avoid CO poisoning.

WARNING

CALIFORNIA PROPOSITION 65 WARNING

Engine exhaust and a wide variety of automobile components and parts, including components found in the interior furnishings in a vehicle, contain or emit chemicals known to the State of California to cause cancer and birth defects and reproductive harm.

In addition, certain fluids contained in vehicles and certain products of component wear contain or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

- Do not operate the engine in confined or closed areas (such as garages) any more than what is necessary to move the vehicle in or out of the area.
- When the vehicle is stopped in an open area for more than a short time with the engine running, adjust the ventilation system (as needed) to draw outside air into the vehicle.
- Never sit in a parked or stopped vehicle for any extended time with the engine running.
- When the engine stalls or fails to start, excessive attempts to restart the engine may cause damage to the emission control system.

Operating precautions for catalytic converters (if equipped)

WARNING

The exhaust system and catalytic system are very hot while the engine is running or immediately after the engine is turned off. To avoid SERIOUSINJURY or DEATH:

- **Do not park, idle, or drive the vehicle over or near flammable objects, such as grass, vegetation, paper, leaves, etc. A hot exhaust system can ignite flammable items under your vehicle.**
- **Keep away from the exhaust system and catalytic converter or you may get burned.**

  Also, Do not remove the heat sink around the exhaust system, do not seal the bottom of the vehicle, and do not coat the vehicle for corrosion control. It may present a fire risk under certain conditions.

Your vehicle is equipped with a catalytic converter emission control device.
To prevent damage to the catalytic converter and to your vehicle, take the following precautions:

- Use only UNLEADED FUEL for gasoline engines.
- Do not operate the vehicle when there are signs of engine malfunction, such as misfire or a noticeable loss of performance.
- Do not misuse or abuse the engine. Examples of misuse are coasting with the hybrid system off and descending steep grades in gear with the hybrid system off.
- Do not operate the engine at high idle speed for extended periods (5 minutes or more).
- Do not modify or tamper with any part of the engine or emission control system. Have all inspections and adjustments made by an authorized HYUNDAI dealer.
- Avoid driving with an extremely low fuel level.

  Running out of fuel could cause the engine to misfire, damaging the catalytic converter.

CALIFORNIA PERCHLORATE NOTICE

Perchlorate Material-special handling may apply, See: https://dtsc.ca.gov/perchlorate

Notice to California Vehicle Dismantlers: Perchlorate containing materials, such as air bag inflators, seatbelt pretensioners and keyless remote entry batteries, must be disposed of according to Title 22 California Code of Regulations Section 67384.10 (a).

Index

A

Accessing Your Vehicle 5-4
Hyundai Digital Key 5-12
Immobilizer System 5-11
Smart Key 5-4
Air Bag - Supplemental Restraint System 3-43
Additional Safety Precautions 3-65
Air Bag Warning Labels 3-65
How does the Air Bags System Operate? 3-49
Occupant Classification System (OCS) 3-53
SRS Care 3-64
What to Expect after an Air Bag Inflates 3-52
Where are the Air Bags? 3-45
Why didn't my air bag go off in a collision? 3-59
Air Cleaner 9-23
Filter Replacement 9-23
Air Conditioner Compressor Label 2-23
Air Conditioning Refrigerant Label 2-24
Air Conditioning System 2-19
All Wheel Drive (AWD) 6-37
All Wheel Drive (AWD) Operation 6-38
Emergency Precautions 6-42
Reducing the Risk of a Rollover 6-44
Appearance Care 9-67
Exterior Care 9-67
Interior Care 9-71
Automatic Climate Control System 5-99
Automatic Heating and Air Conditioning 5-100
Manual Heating and Air Conditioning 5-101
Multi Air Mode 5-108
System Maintenance 5-111
System Operation 5-109
Automatic Transmission 6-10
Automatic Transmission Operation 6-10
Good Driving Practices 6-15
Cluster Display Message 6-14
Paddle Shifter 6-15
Parking 6-13

B

Battery (Plug-in Hybrid Vehicle) 9-29
Battery Capacity Label 9-31
Battery Recharging 9-31
For Best Battery Service 9-30
Reset Items 9-33
Before Driving 6-4
Before Entering the Vehicle 6-4
Before Starting 6-4
Blind-Spot Collision-Avoidance Assist (BCA) 7-38
Blind-Spot Collision-Avoidance Assist Malfunction and Limitations 7-47
Blind-Spot Collision-Avoidance Assist Operation 7-43
Blind-Spot Collision-Avoidance Assist Settings 7-40
Blind-Spot View Monitor (BVM) 7-72
Blind-Spot View Monitor Malfunction 7-73
Blind-Spot View Monitor Operation 7-72
Blind-Spot View Monitor Settings 7-72
Brake Fluid 9-21
Checking the Brake Fluid Level 9-21
Braking System 6-18
Anti-lock Brake System (ABS) 6-27
Auto Hold 6-23
Disc Brakes Wear Indicator 6-19
Downhill Brake Control (DBC) 6-33
Electronic Parking Brake (EPB) 6-19
Electronic Stability Control (ESC) 6-28
Good Braking Practices 6-36
Hill-Start Assist Control (HAC) 6-32
Power Brakes 6-18
Trailer Stability Assist (TSA) 6-33
Vehicle Stability Management (VSM) 6-31
Bulb Wattage 2-17

C

Cabin Air Filter 9-24
Filter Inspection 9-24
Filter Replacement 9-24
California Perchlorate Notice 9-77
Center Console Overview - Hybrid Vehicle 2-7
Center Console Overview - Plug-in Hybrid Vehicle 2-13
Charging Label 2-23
Charging the Plug-in Hybrid Vehicle 1-12
AC Charge 1-20
Action to be Taken when Charging Stops Abruptly 1-50
Charging Connector Lock 1-16
Charging Information 1-12
Charging Precautions 1-17
Charging Status 1-14
Charging Time 1-12
Charging Types 1-13
Electric Charging Label 1-19
Scheduled Charging 1-15
Trickle Charge (Type A) 1-25
Trickle Charge (Type B) 1-37
Child Restraint System (CRS) 3-32
Installing a Child Restraint System (CRS) 3-35
Our Recommendation: Children Always in the Rear 3-32
Selecting a Child Restraint System (CRS) 3-33
Climate Control Additional Features 5-116
A/C Automatic Drying 5-116
Auto Defogging System on Models with Automatic Temperature Control 5-116
Auto Dehumidify 5-117
Automatic Controls for the Driver Based on Climate Control System Settings 5-118
Recirculating Air when Washer Fluid is Used 5-118
Sunroof Inside Air Recirculation 5-118
Coasting Guide 6-17
Consumer Information 2-25
Cruise Control (CC) 7-74
Cruise Control Operation 7-74

D

Declaration of Conformity 7-164
Front Radar 7-164
Rear Corner Radar 7-164
Dimensions 2-16
Door Locks 5-29
Auto Door Lock/Unlock Features 5-33
Child-protector Rear Door Locks 5-33
Operating Door Locks from Outside the Vehicle 5-29
Operating Door Unlocks from Inside the Vehicle 5-31
Drive Mode Integrated Control System (AWD) 6-46
Drive Mode 6-46
Driver Attention Warning (DAW) 7-66
Driver Attention Warning Malfunction and Limitations 7-69
Driver Attention Warning Operation 7-67
Driver Attention Warning Settings 7-66
Driving the Hybrid Vehicle 1-51
Aux. Battery Saver+ (Plug-in hybrid vehicle) 1-55
Energy Flow 1-66
Hybrid System Gauge 1-53
Cluster Display Messages 1-58
Plug-in Hybrid Mode (Plug-in hybrid vehicle) 1-54
Special Features 1-51
Starting the Vehicle 1-51
Warning and Indicator Lights 1-57

E

Electronic Control Suspension 6-45
System Malfunction 6-45
Emergency/Roadside Assistance Accessories 8-29
Fire Extinguisher 8-29
First Aid Kit 8-29
Tire Pressure Gauge 8-29
Triangle Reflector 8-29
Emission Control System 9-74
Crankcase Emission Control System 9-74
Evaporative Emission Control System Including Onboard Refueling Vapor Recovery (ORVR) 9-74
Exhaust Emission Control System 9-75

Engine 2-16
Engine Compartment 9-3
Engine Compartment Overview - Hybrid Vehicle 2-9
Engine Compartment Overview - Plug-in Hybrid Vehicle 2-15
Engine Coolant/Inverter Coolant 9-18
Changing Coolant 9-20
Checking the Coolant Level 9-18
Engine Number 2-23
Engine Oil 9-16
Checking the Engine Oil and Filter 9-17
Checking the Engine Oil Level 9-16
Explanation of Scheduled Maintenance Items 9-14
Exterior Features 5-130, 5-66
Fuel Filler Door (Hybrid vehicle) 5-77
Fuel Filler Door (Plug-in hybrid vehicle) 5-79
Hood 5-66
Liftgate 5-67
Power Liftgate 5-69
Roof Side Rails 5-130
Smart Liftgate 5-75
Exterior Overview (Front View) - Hybrid Vehicle 2-2
Exterior Overview (Front View) - Plug-in Hybrid Vehicle 2-10
Exterior Overview (Rear View) - Hybrid Vehicle 2-4
Exterior Overview (Rear View) - Plug-in Hybrid Vehicle 2-11

F

Forward Collision–Avoidance Assist (FCA) (Front view camera only) 7-2
Forward Collision-Avoidance Assist Malfunction and Limitations 7-8
Forward Collision-Avoidance Assist Operation 7-5
Forward Collision-Avoidance Assist Settings 7-3
Forward Collision–Avoidance Assist (FCA) (Sensor fusion) 7-15
Forward Collision-Avoidance Assist Malfunction and Limitations 7-24
Forward Collision-Avoidance Assist Operation 7-19
Forward Collision-Avoidance Assist Settings 7-17
Forward/Reverse Parking Distance Warning (PDW) 7-138
Forward/Reverse Parking Distance Warning Malfunction and Precautions 7-141
Forward/Reverse Parking Distance Warning Operation 7-139
Forward/Reverse Parking Distance Warning Settings 7-138

Fuses 9-47
Engine Compartment Panel Fuse Replacement 9-49
Fuse/Relay Panel Description 9-50
Instrument Panel Fuse Replacement 9-48

H

Hazard Warning Flasher 8-2
HEV (Hybrid Electric Vehicle) System 1-10
High Beam Assist (HBA) 5-88
High Beam Assist Malfunction and Limitations 5-90
High Beam Assist Operation 5-89
High Beam Assist Settings 5-88
Highway Driving Assist (HDA) 7-106
Highway Driving Assist Malfunction and Limitations 7-110
Highway Driving Assist Operation 7-108
Highway Driving Assist Settings 7-107
Hybrid Driving System 1-69
e-Handling (Electrically Assisted Handling Performance)/ e-EHA (Electrically Evasive Handling Assist) 1-69
Hybrid Starter & Generator (HSG) Belt 9-21
Checking the Hybrid Starter & Generator (HSG) Belt 9-21

I

If the 12 V Battery is Discharged (Hybrid Vehicle) 8-5
Before Jump Starting 8-5
Jump Starting 8-6
If the 12 V Battery is Discharged (Plug-in Hybrid Vehicle) 8-8
Jump Strating 8-8
If the Engine Overheats 8-10
If the Engine Will Not Start 8-4
If You Have a Flat Tire (with Tire Mobility Kit) 8-17
Checking the Tire Inflation Pressure 8-23
Components of the Tire Mobility Kit 8-19
Introduction 8-17
Notes on the safe use of the Tire Mobility Kit 8-18
Using the Tire Mobility Kit 8-20
Ignition Switch 6-5
Engine Start/Stop Button 6-5
Remote Start 6-9

Important Safety Precautions....3-2
Air Bag Hazards....3-2
Always Wear Your Seat Belt....3-2
Control Your Speed....3-2
Driver Distraction....3-2
Keep Your Vehicle in Safe Condition....3-2
Restrain All Children....3-2
In Case of an Emergency while Driving....8-3
If the Engine Stalls at a Crossroad or Crossing....8-3
If the Engine Stalls while Driving....8-3
If you have a Flat Tire while Driving....8-3
Infotainment System....5-131
Antenna....5-132
Bluetooth® Wireless Technology....5-134
Infotainment System....5-133
Steering Wheel Remote Controls....5-132
USB Port....5-131
Voice Recognition....5-133
Instrument Cluster....4-4
Gauges and Meters....4-5
Instrument Cluster Control....4-5
Cluster Display Messages....4-23
Transmission Shift Indicator....4-10
Warning and Indicator Lights....4-10
Integrated Memory System....5-37
Recalling Memory Positions....5-38
Resetting the System....5-38
Seat Easy Access Operation....5-39
Storing Memory Positions....5-37
Intelligent Speed Limit Assist (ISLA)....7-61
Intelligent Speed Limit Assist Malfunction and Limitations....7-64
Intelligent Speed Limit Assist Operation....7-62
Intelligent Speed Limit Assist Settings....7-61

Interior Features 5-120
Cargo Security Screen 5-128
Clock 5-126
Coat Hook 5-126
Cup Holder 5-120
Floor Mat Anchor(s) 5-127
Luggage Net Holder 5-127
Power Outlet 5-121
Sunvisor 5-121
USB Charger 5-122
Wireless Smart Phone Charging System 5-123
Interior Lights 5-91
Front lamps 5-91
Glove Box Lamp 5-93
Interior Lamp AUTO OFF 5-91
Luggage Compartment Lamp 5-93
Rear Lamps 5-92
Vanity Mirror Lamp 5-92
Welcome System 5-94
Interior Overview - Hybrid Vehicle 2-6
Interior Overview - Plug-in Hybrid Vehicle 2-12

L

Lane Following Assist (LFA) 7-102
Lane Following Assist Malfunction and Limitations 7-105
Lane Following Assist Operation 7-103
Lane Following Assist Settings 7-102
Lane Keeping Assist (LKA) 7-32
Lane Keeping Assist Malfunction and Limitations 7-36
Lane Keeping Assist Operation 7-34
Lane Keeping Assist Settings 7-32
Cluster Display 4-34
Cluster Display Control 4-34
Trip Computer (10.25-inch) - Hybrid Vehicle 4-49
Trip Computer (10.25-inch) - Plug-in Hybrid Vehicle 4-55
Trip Computer (4.2-inch) - Hybrid Vehicle 4-46
Trip Computer (4.2-inch) - Plug-in Hybrid Vehicle 4-52
View Modes 4-35

Light Bulbs 9-59
Headlight, Position Lamp, Turn Signal Lamp, Daytime Running Light (DRL) Replacement 9-60
High Mounted Stop Lamp Replacement 9-64
Interior Light Replacement 9-65
License Plate Lamp Replacement 9-64
Rear Combination Lamp Replacement 9-61
Side Repeater Lamp Replacement 9-60
Lighting 5-84
Exterior Lights 5-84

M

Maintenance Services 9-4
Owner Maintenance Precautions 9-4
Owner's Responsibility 9-4
Manual Speed Limit Assist (MSLA) 7-58
Manual Speed Limit Assist Operation 7-58
Mirrors 5-43
Inside Rearview Mirror 5-43
Side View Mirrors 5-54

N

Navigation-based Smart Cruise Control (NSCC) 7-95
Limitations of Navigation-based Smart Cruise Control 7-98
Navigation-based Smart Cruise Control Operation 7-96
Navigation-based Smart Cruise Control Settings 7-95

O

Open Source Software Notice (for Plug-in Hybrid Vehicle) 2-24
Owner Maintenance 9-5
Owner Maintenance Schedule 9-5

P

Panoramic Sunroof 5-61
Automatic Reversal 5-63
Power Sunshade 5-61
Resetting the Sunroof 5-64
Slide Open/Close 5-62
Sunroof Open Warning 5-65
Tilt Open/Close 5-62
PHEV (Plug-in Hybrid Electric Vehicle) System 1-10

R

Rear Cross-Traffic Collision-Avoidance Assist (RCCA) 7-122
Rear Cross-Traffic Collision-Avoidance Assist Malfunction and Limitations 7-128
Rear Cross-Traffic Collision-Avoidance Assist Operation 7-125
Rear Cross-Traffic Collision-Avoidance Assist Settings 7-123
Rear Occupant Alert (ROA) 5-35
System Operation 5-35
System Precautions 5-35
System Setting 5-35
Rear View Monitor (RVM) 7-113
Rear View Monitor Malfunction and Limitations 7-115
Rear View Monitor Operation 7-114
Rear View Monitor Settings 7-113
Recommended Lubricants and Capacities 2-20
Recommended SAE Viscosity Number 2-21
Remote Smart Parking Assist (RSPA) 7-151
Remote Smart Parking Assist Malfunction and Limitations 7-158
Remote Smart Parking Assist Operation 7-153
Remote Smart Parking Assist Settings 7-152
Reporting Safety Defects 2-26
Reverse Parking Collision-Avoidance Assist (PCA) 7-143
Reverse Parking Collision-Avoidance Assist Malfunction and Limitations 7-146
Reverse Parking Collision-Avoidance Assist Operation 7-145
Reverse Parking Collision-Avoidance Assist Settings 7-143
Reverse Parking Distance Warning (PDW) 7-134
Reverse Parking Distance Warning Malfunction and Precautions 7-136
Reverse Parking Distance Warning Operation 7-135
Reverse Parking Distance Warning Settings 7-134

S

Safe Exit Warning (SEW) 7-52
Safe Exit Warning Malfunction and Limitations 7-55
Safe Exit Warning Operation 7-54
Safe Exit Warning Settings 7-52
Safety Precautions for Hybrid System 1-70
Hybrid Battery Cooling Duct 1-72
Hybrid Vehicle Components 1-70
If an accident occurs 1-73
Service Interlock Connector 1-72
When the Hybrid Vehicle Shuts Off 1-74
Scheduled Maintenance Services 9-7
Maintenance Under Severe Usage Conditions 9-12
Normal Maintenance Schedule 9-9
Seat Belts 3-22
Additional Seat Belt Safety Precautions 3-29
Care of Seat Belts 3-31
Seat Belt Restraint System 3-24
Seat Belt Safety Precautions 3-22
Seat Belt Warning Light 3-23
Seats 3-3
Air Ventilation Seat 3-20
Front Seats 3-5
Head Restraint 3-14
Rear Seats 3-11
Safety Precautions 3-4
Seat Warmers 3-18
Smart Cruise Control (SCC) 7-78
Display and Control 7-84
Smart Cruise Control Malfunction and Limitations 7-89
Smart Cruise Control Operation 7-83
Smart Cruise Control Settings 7-79

Special Driving Conditions 6-49
Driving at Night 6-50
Driving in Flooded Areas 6-51
Driving in the Rain 6-50
Hazardous Driving Conditions 6-49
Highway Driving 6-51
Reducing the Risk of a Rollover 6-51
Rocking the Vehicle 6-49
Smooth Cornering 6-50
Steering Wheel 5-40
Heated Steering Wheel 5-41
Horn 5-42
Motor Driven Power Steering (MDPS) 5-40
Tilt / Telescopic Steering 5-41
Steering Wheel Control Overview - Hybrid Vehicle 2-8
Steering Wheel Control Overview - Plug-in Hybrid Vehicle 2-14
Storage Compartment 5-119
Center Console Storage 5-119
Glove Box 5-119
Luggage Tray 5-119
Surround View Monitor (SVM) 7-116
Surround View Monitor Malfunction and Limitations 7-121
Surround View Monitor Operation 7-119
Surround View Monitor Settings 7-117

T

Theft-Alarm System 5-34
Tire Pressure Monitoring System (TPMS) 8-12
Changing a Tire with TPMS 8-15
Check Tire Pressure 8-12
Low Tire Pressure Position and Tire Pressure Telltale 8-14
Low Tire Pressure Warning Light 8-14
Tire Pressure Monitoring System 8-13
TPMS (Tire Pressure Monitoring System) malfunction indicator 8-15
Tire Specification and Pressure Label 2-23

Tires and Wheels 2-18, 9-34
All Season Tires 9-44
Check Tire Inflation Pressure 9-35
Low Aspect Ratio Tires 9-45
Radial-Ply Tires 9-45
Recommended Cold Tire Inflation Pressures 9-34
Snow Tires 9-44
Summer Tires 9-44
Tire Care 9-34
Tire Maintenance 9-38
Tire Replacement 9-37
Tire Rotation 9-36
Tire Sidewall Labeling 9-39
Tire Terminology and Definitions 9-42
Tire Traction 9-38
Wheel Alignment and Tire Balance 9-37
Wheel Replacement 9-38
Towing 8-25
Emergency Towing 8-27
Removable Towing Hook 8-26
Towing Service 8-25
Trailer Towing 6-57
Driving with a Trailer 6-62
If you Decide to Pull a Trailer 6-58
Maintenance when Towing a Trailer 6-65
Trailer Towing Equipment 6-61

V

Vehicle Certification Label 2-22
Vehicle Data Collection and Event Data Recorders 1-9
Vehicle Identification Number (VIN) 2-22
Vehicle Settings (Infotainment System) 4-58
  Setting Your Vehicle 4-58
Vehicle Weight 6-66
  The Loading Information Label 6-67
Volume and Weight 2-19

W

Washer Fluid 9-22
  Checking the Washer Fluid Level 9-22
Windows 5-56
  Power Windows 5-57
Windshield Defrosting and Defogging 5-113
  Auto Defogging System on Models with Automatic Temperature Control ... 5-114
  Automatic Climate Control System 5-113
  Rear Window Defroster 5-115
Winter Driving 6-52
  Snow or Icy Conditions 6-52
  Winter Precautions 6-55
Wiper Blades 9-25
  Blade Inspection 9-25
  Blade Replacement 9-25
Wipers and Washers 5-95
  Front Windshield Washers 5-97
  Rear Window Wiper and Washer 5-98
  Windshield Wipers 5-95