# HYUNDAI

# 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 Department of Transportation and other government agencies in your country.

#### TWO-WAY RADIO OR CELLULAR TELEPHONE INSTALLATION

Your vehicle is equipped with electronic fuel injection and other electronic components. It is possible for an improperly installed/adjusted two-way radio or cellular telephone to adversely affect electronic systems. For this reason, we recommend that you carefully follow the radio manufacturer's instructions or consult your HYUNDAI dealer for precautionary measures or special 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:

#### **A** DANGER

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

### **A** 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.

#### **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. 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 COMPANY**

#### **!** 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 8-7 in the Vehicle Specifications section of the Owner's Manual.

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### 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. We strongly recommend that you read the entire manual. In order to minimize the chance of death or injury, you must read the WARNING and CAUTION sections in the manual.

Illustrations complement the words in this manual to best explain how to enjoy your vehicle. By reading your manual, you will learn about features, important safety information, and driving tips under various road conditions.

The general layout of the manual is provided in the Table of Contents. Use the index when looking for a specific area or subject; it has an alphabetical listing of all information in your manual.

Sections: This manual has eight chapters plus an index. Each chapter begins with a brief list of contents so you can tell at a glance if that section has the information you want.

#### **SAFETY MESSAGES**

Your safety, and the safety of others, is 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 to 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.

# **A** 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

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#### NOTICE

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

#### FUEL REQUIREMENTS

### **Gasoline engine**

#### Unleaded

For Europe

For the optimal vehicle performance, we recommend you use unleaded gasoline which has an octane rating of RON (Research Octane Number) 95 / AKI (Anti Knock Index) 91 or higher.

You may use unleaded gasoline with an octane rating of RON 91-94 / AKI 87-90 but it may result in slight performance reduction of the vehicle. (Do not use methanol blended fuels)

#### **Except Europe**

Your new vehicle is designed to use only unleaded fuel having an Octane Rating of RON (Research Octane Number) 91 / AKI (Anti-Knock Index) 87 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.

# **A** CAUTION

NEVER USE LEADED FUEL. The use of leaded fuel is detrimental to the catalytic converter and will damage the engine control system's oxygen sensor and affect emission control.

Never add any fuel system cleaning agents to the fuel tank other than what has been specified (We recommend that you consult an authorized HYUNDAI dealer for details.)

### **A** 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.

#### Leaded (if equipped)

For some countries, your vehicle is designed to use leaded gasoline. When you are going to use leaded gasoline, we recommend that you ask an authorized HYUNDAI dealer. Octane rating of leaded gasoline is same with unleaded one.

# Gasoline containing alcohol and methanol

Gasohol, a mixture of gasoline and ethanol (also known as grain alcohol), and gasoline or gasohol containing methanol (also known as wood alcohol) are being marketed along with or instead of leaded or unleaded 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.

Vehicle damage or driveability problems may not be covered by the manufacturer's warranty if they result from the use of:

- 1. Gasohol containing more than 10% ethanol.
- 2. Gasoline or gasohol containing methanol.
- 3. Leaded fuel or leaded gasohol.

# **⚠** CAUTION

Never use gasohol which contains methanol. Discontinue use of any gasohol product which impairs drivability.

#### Other fuels

Using fuel additives such as:

- Silicone fuel additive
- MMT (Magnanese, Mn) 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.

#### 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.

#### Use of MTBE

HYUNDAI recommends avoiding fuels containing MTBE (Methyl Tertiary Butyl Ether) over 15.0% vol. (Oxygen Content 2.7% weight) in your vehicle.

Fuel containing MTBE over 15.0% vol. (Oxygen Content 2.7% weight) may reduce vehicle performance and produce vapor lock or hard starting.

# **!** CAUTION

Your New Vehicle Limited Warranty may not cover damage to the fuel system and any performance problems that are caused by the use of fuels containing methanol or fuels containing MTBE (Methyl Tertiary Butyl Ether) over 15.0% vol. (Oxygen Content 2.7% weight.)

#### Do not use methanol

Fuels containing methanol (wood alcohol) should not be used in your vehicle. This type of fuel can reduce vehicle performance and damage components of the fuel system, engine control system and emission control system.

#### Fuel Additives

HYUNDAI recommends that you use unleaded gasoline which has an octane rating of RON (Research Octane Number) 95 / AKI (Anti Knock Index) 91 or higher (for Europe) or Octane Rating of RON (Research Octane Number) 91 / AKI (Anti-Knock Index) 87 or higher (except Europe).

For customers who do not use good quality gasolines including fuel additives regularly, and have problems starting or the engine does not run smoothly, one bottle of additive added to the fuel tank according to the maintenance schedule is recommended (refer to chapter 7, "Normal Maintenance Schedule"). 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.

#### **Diesel engine**

#### Diesel fuel

Diesel engine must be operated only on commercially available diesel fuel that complies with EN 590 or comparable standard. (EN stands for "European Norm"). Do not use marine diesel fuel, heating oils, or non-approved fuel additives, as this will increase wear and cause damage to the engine and fuel system. The use of non-approved fuels and / or fuel additives will result in a limitation of your warranty rights.

Diesel fuel of above cetane 51 is used in your vehicle. If two types of diesel fuel are available, use summer or winter fuel properly according to the following temperature conditions.

- Above -5°C (23°F) ... Summer type diesel fuel.
- Below -5°C (23°F) ... Winter type diesel fuel.

Watch the fuel level in the tank very carefully: If the engine stops through fuel failure, the circuits must be completely purged to permit restarting.

# **!** CAUTION

Do not let any gasoline or water enter the tank. This would make it necessary to drain it out and to bleed the lines to avoid jamming the injection pump and damaging the engine.

# **!** CAUTION

Diesel Fuel (if equipped with DPF)

It is recommended to use the regulated automotive diesel fuel for diesel vehicle equipped with the DPF system.

If you use diesel fuel including high sulfur (more than 50 ppm sulfur) and unspecified additives, it can cause the DPF system to be damaged and white smoke can be emitted.

#### **Biodiesel**

Commercially supplied Diesel blends of no more than 7% biodiesel, commonly known as "B7 Diesel" may be used in your vehicle if Biodiesel meets EN 14214 or equivalent specifications. (EN stands for "European Norm"). The use of biofuels exceeding 7% made from rapeseed methyl ester (RME), fatty acid methyl ester (FAME), vegetable oil methyl ester (VME) etc. or mixing diesel exceeding 7% with biodiesel will cause increased wear or damage to the engine and fuel system. Repair or replacement of worn or damaged components due to the use of non approved fuels will not be covered by the manufactures warranty.

# **!** CAUTION

- Never use any fuel, whether diesel, B7 biodiesel or otherwise, that fails to meet the latest petroleum industry specification.
- Never use any fuel additives or treatments that are not recommended or approved by the vehicle manufacturer.

# **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, we recommend that you do not use unauthorized electronic devices.

# 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 5 of this manual.

# VEHICLE BREAK-IN PROCESS

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

- Do not race the engine.
- While driving, keep your engine speed (RPM, or revolutions per minute) between 2,000 RPM and 4,000 RPM.
- 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 6,000 km (4,000 miles).
   New engines may consume more oil during the vehicle break-in period.

# RETURNING USED VEHICLES (FOR EUROPE)

HYUNDAI promotes an environmentally sound treatment for end of life vehicles and offers to take back your HYUNDAI end of life vehicles in accordance with the European Union (EU) End of Life Vehicles Directive.

You can get detailed information from your national HYUNDAI homepage.

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The actual shape may differ from the illustration.

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The actual shape may differ from the illustration.

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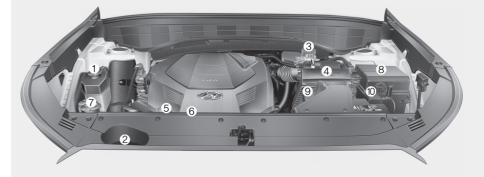
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The actual shape may differ from the illustration.

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

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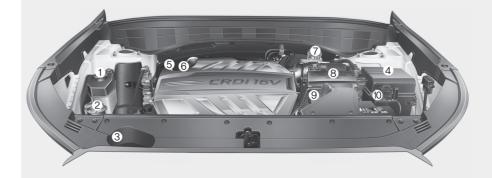
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The actual engine compartment in the vehicle may differ from the illustration.

# Safety system of your vehicle

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.

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#### 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 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 cellular 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:

- ALWAYS set up your mobile devices (i.e., MP3 players, phones, navigation units, etc.) 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 countries have laws prohibiting drivers from texting. Some countries 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.

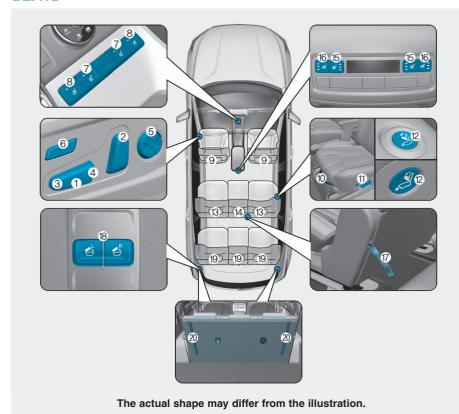
### **Control your speed**

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**



#### Front seat

- 1. Forward and backward
- 2. Seatback angle
- 3. Seat cushion angle
- 4. Seat cushion height
- 5. Lumbar support (Driver's seat)
- 6. Seat cushion length
- 7. Seat warmer
- 8. Air ventilation seat
- 9. Headrest

#### 2<sup>nd</sup> row seat

- 10. Forward and backward
- 11. Seatback angle
- 12. Walk-in switch
- 13. Headrest
- 14. Headrest (8 passengers)
- 15. Seat warmer
- 16. Air ventilation seat
- 17. Seat folding strap
- 18. 2nd row seat remote folding switch

#### 3rd row seat

- 19. Headrest
- 20. Seat folding strap

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### **Safety precautions**

Adjusting the seats so that you are sitting in a safe, comfortable position plays an important role in driver and passenger safety, together with seat belts and air bags, in an accident.

#### **A** 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. Move your seat as far back as possible from front air bags, while still maintaining control of the vehicle.

#### **A** 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 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 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.

#### **A** 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

The front seat can be adjusted by using the control lever or 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.

### **A** 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.

# **A** CAUTION

#### To prevent injury:

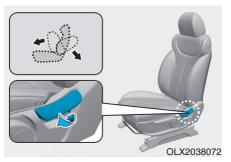
- Do not adjust your seat while wearing your seat belt.
   Moving the seat cushion forward may cause strong pressure on your abdomen.
- Do not allow your hands or fingers to get caught in the seat mechanisms while the seat is moving.

#### Manual adjustment



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.



### Seatback angle

To recline the seatback:

- 1. Lean forward slightly and lift up the seatback lever.
- 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.

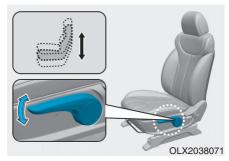
#### **A** WARNING

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.



Seat cushion height (if equipped)
To change the height of the seat cushion:

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

### Power adjustment (if equipped)

### **A** WARNING

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

#### NOTICE

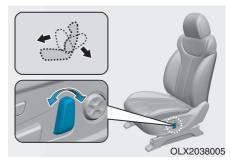
To prevent damage to the seats:

- 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 engine 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.



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.



Seatback angle

To recline the seatback:

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



# Cushion extension (for driver's seat, if equipped)

To move the front part of cushion forward:

- 1. Push the front part of control switch to move the seat cushion to the desired length.
- 2. Release the switch once the seat cushion reaches the desired length.

To move the front part of cushion rearward:

- Push the rear part of control switch to move the seat cushion to the desired length.
- Release the switch once the seat cushion reaches the desired length.

### Reclining seatback

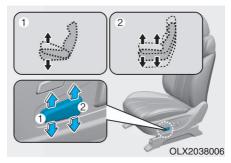
Sitting in a reclined position when the vehicle is in motion can be dangerous. Even when buckled up, the protections of your restraint system (seat belts and air bags) is greatly reduced by reclining your seatback.

#### **A** 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 angle (1)

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.

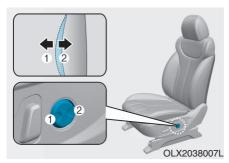
Release the switch once the seat reaches the desired position.

#### Seat cushion 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)

- 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.

#### Seatback pocket



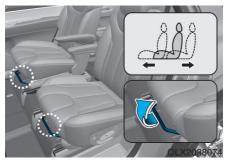
The seatback pocket is provided on the back of the front passenger's seatbacks.

# **!** 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**

#### Rear seat adjustment



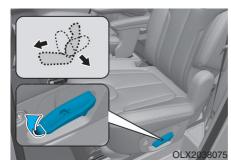
\* Above picture shows a 7-seater vehicle.

Forward and backward (2nd row seat)

To move the seat forward or backward:

- 1. Pull the seat slide adjustment lever up and hold it.
- Slide the seat to the position you desire.
- 3. Release the lever and make sure the seat is locked in place.

Adjust the seat before driving, and make sure the seat is locked securely by trying to move forward and backward without using the lever. If the seat moves, it is not locked properly.



Seatback angle (2nd row seat)

To recline the seatback:

- 1. Pull up the seatback recline lever.
- Hold the lever and adjust the seatback of the seat to the position you desire.
- 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.)

#### Seatback angle (3rd row seat)



To recline the seatback:

- 1. Pull up the seatback recline strap.
- Hold the strap and adjust the seatback of the seat to the position you desire.
- 3. Release the strap and make sure the seatback is locked in place.

(The strap MUST return to its original position for the seatback to lock.)

# Walk-in seat (2nd row seat, if equipped)







To get in or out of the 3rd row seat,

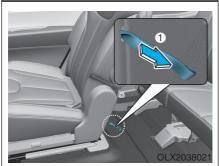
- 1. Routing the seat belt webbing through the rear seat belt guide clip. After inserting the seat belt, tighten the belt webbing by pulling it up.
- Push the walk-in switch located in upper part (1) of 2nd row seat or side part (2) of 2nd row seat.
- The 2nd row seatback will be folded and push the seat to the farthest forward position.

After getting in or out, slide the 2nd row seat to the farthest rearward position and pull the seatback firmly backward until it clicks into place. Make sure that the seat is locked in place.

# **A** WARNING

Never attempt to adjust while the vehicle is moving or the 2nd row seat is occupied as the seat may suddenly move and cause the passenger on the seat to be injured.

### **A** WARNING



- If the walk-in switch does not work, pull the strap (1) located on the lower left side of the seat. Then you can move the 2nd row seat forward.
- Never attempt to pull the strap (1) while the 2nd row seat is occupied as the seat may suddenly move and cause the passenger on the seat to be injured. Use only the strap when the walk-in switch does not work.

# Folding the rear seat

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

#### **A** WARNING

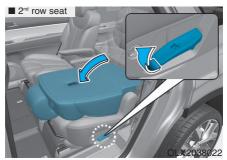
- Never allow passengers to sit on top of the folded down seatback while the vehicle is moving. This is not a proper seating position and no seat belts are available for use. This could result in serious injury or death in case of an accident or sudden stop.
- Objects carried on the folded down seatback 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.

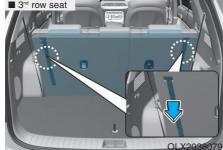
To fold down the rear seatback:

- Set the front seatback to the upright position and if necessary, slide the front seat forward.
- 2. Lower the rear headrests to the lowest position.



 Locate the seatbelt toward the outboard position before folding down the seatback to avoid the seatbelt system interfering with the seatback.





4. Pull on the seatback folding lever (2nd row seat), then fold the seat toward the front of the vehicle. Pull the strap backward (3rd row seat), then fold the 3rd 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.



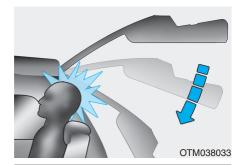


To use the rear seat, lift and pull the seatback backward by pulling the folding lever or the strap.

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.



# **A** WARNING

If the tailgate is pushed down to close it when a passenger's head is not against a properly adjusted headrest or a tall person is seated, the tailgate may hit the occupant's head, which could cause injury.

### **A** 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.

#### A WARNING

Make sure the engine is off, the shift button is in 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 shifted to another position.

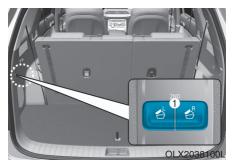
# **A** CAUTION

- 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.

# **A** 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.

# 2nd row seat folding (if equipped) (from outside)



Push the 2nd row seat back folding switch (1) located in the left side in the tailgate. (L: Left seatback folding, R: Right seatback folding)

# **A** WARNING

#### Rear seat folding

Do not fold the rear seats (2nd & 3rd row seats), if passengers, pets or luggage are in the rear seats.

It may cause injury or damage to passengers, pets, luggage.

# Armrest (2<sup>nd</sup> row, 8 passengers vehicle)



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

## Armrest (2<sup>nd</sup> row, 7 passengers vehicle)



Pull the armrest down from the seatback to use it.

## Rear occupant alert system (Rear seat)

This function alerts driver when you get out of a car with the passengers remain in the 2nd row seat.

If you open the door with the passengers in the 2nd row seat, the warning message appear on the cluster panel to give a first warning. If the movement is detected in the 2nd row seat after you lock all doors, 2nd warning alerts you.

Make sure you check the passenger in 2nd row seat before you get off.

For more information, refer to the "Rear occupant alert system" in chapter 3.

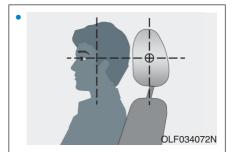
#### **Headrest**

The vehicle's front and rear seats have adjustable headrests. The headrests 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.

## **A** WARNING

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

- Always properly adjust the headrests for all passengers BEFORE starting the vehicle.
- NEVER let anyone ride in a seat with the headrest removed.



Adjust the headrests so the middle of the headrest is at the same height as the height of the top of the eyes.

- NEVER adjust the headrest position of the driver's seat when the vehicle is in motion.
- Adjust the headrest 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 headrest locks into position after adjusting it.

#### NOTICE

To prevent damage, NEVER hit or pull on the headrests.

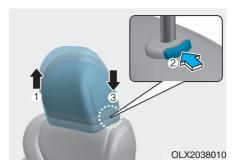
## **A** CAUTION

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

#### Front seat headrests



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



Adjusting the height up and down To raise the headrest:

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

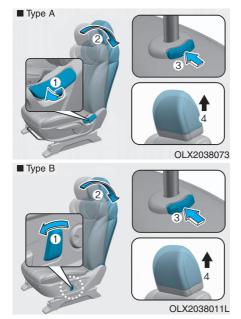
#### To lower the headrest:

- Push and hold the release button
   on the headrest support.
- 2. Lower the headrest to the desired position (3).



### NOTICE

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



#### Removal/Reinstall

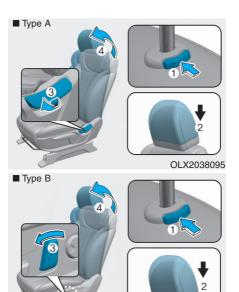
#### To remove the headrest:

- Recline the seatback (2) with using the seatback angle lever or switch (1).
- 2. Raise the headrest as far as it can go.

3. Press the headrest release button (3) while pulling the headrest up (4).

## **A** WARNING

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



4. Recline the seatback (4) the seatback angle lever or switch (3).

## **A** WARNING

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

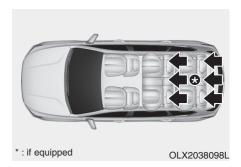
To reinstall the headrest:

- 1. Recline the seatback.
- 2. Put the headrest poles (2) into the holes while pressing the release button (1).

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3. Adjust the headrest to the appropriate height.

## Rear seat headrests (2<sup>nd</sup>, 3<sup>rd</sup> row rear seat)



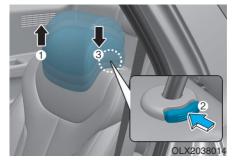
The rear seats are equipped with headrests in all the seating positions for the passenger's safety and comfort.

## **A** CAUTION

 Adjust the headrests so the middle of the headrest is at the same height as the height of the top of the eyes.



 When sitting on the rear seat, do not adjust the height of the headrest to the lowest.

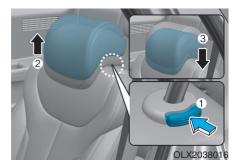


Adjusting the height up and down To raise the headrest:

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

To lower the headrest:

- Push and hold the release button
   on the headrest support.
- 2. Lower the headrest to the desired position (3).



## Removal and installation

To remove the headrest:

- 1. Raise it as far as it can go.
- 2. Press the release button (1) while pulling upward (2).

To reinstall the headrest:

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

## Seat warmers and air ventilation seats

#### Seat warmers (if equipped)

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

## **A** 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

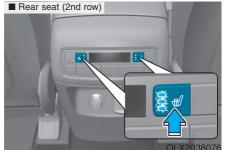
NEVER place anything on the seat that insulates against heat when the seat warmer is in operation, such as a blanket or seat cushion. This may cause the seat warmer to overheat, causing a burn or damage to the seat.

#### 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.





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 / 2<sup>nd</sup> row seat

$$\begin{array}{ccc} \mathsf{OFF} & \to & \mathsf{HIGH} \, (\blacksquare \blacksquare \blacksquare) \\ \uparrow & & \downarrow \\ \mathsf{LOW} \, (\blacksquare) & \leftarrow & \mathsf{MIDDLE} \, (\blacksquare \blacksquare) \end{array}$$

• 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 / 2<sup>nd</sup> row seat

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 in the ON position. However, if the Auto Comfort Control function is ON, the driver's seat warner will turn on and off depending on the ambient temperature.
- Auto Comfort Control (for driver's seat) (if equipped)

The seat warmer automatically controls the seat temperature depending on the ambient 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 Audio / AVN system screen. Select:

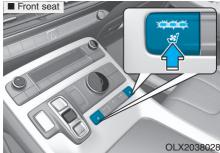
- All menus → Setup → Vehicle → Heated / Ventilated Features

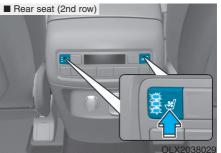
For more details, refer to the separately supplied manual with your vehicle.

## 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.

## Front 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). While the engine is running, push the switch to cool the 2<sup>nd</sup> row passenger's seat (if equipped).

• 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 seats defaults to the OFF position whenever the ignition switch is placed to the ON position.

- The air ventilation seat defaults to the OFF position whenever the ignition switch is in the ON position. However, if the Auto Comfort Control function is ON, the driver's air ventilation seat will turn on and off depending on the ambient temperature.
- Auto Comfort Control (for driver's seat) (if equipped)

The air ventilation seat automatically controls the seat temperature depending on the ambient 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 Audio / AVN system screen. Select:

 All menus → Setup → Vehicle → Heated / Ventilated Features

For more details, refer to the separately supplied manual with your vehicle.

### *i* Information

- If the outside temperature is under approximately 2°C (33°F), the air ventilation seat may not operate.
- Use the air ventilation seat when the climate control system is on. Using the air ventilation seat for prolonged periods of time with the climate control system off could cause the climate control seat performance to be reduced.

#### NOTICE

To prevent damage to the air ventilation seat:

- Use the air ventilation seat ONLY when the climate control system is on. Using the air ventilation seat for prolonged periods of time with the climate control system off could cause the air ventilation seat to malfunction.
- 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 become blocked 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 air vents to not work properly.
- 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, we recommend that you have your vehicle inspected by an authorized HYUNDAI dealer.

#### **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, but they are not a substitute. Most countries require all occupants of a vehicle to wear seat belts.

#### **A** 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 properly restrain them in the seat.
- 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.
   This may prevent the seat belt from fastening securely.

 No modifications or additions should be made by the user which will either prevent the seat belt adjusting devices from operating to remove slack, or prevent the seat belt assembly from being adjusted to remove slack.

## **A** 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

### Seat belt warning



Driver's seat belt warning

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

If the seat belt is not fastened when the ignition switch is turned ON or if it is disconnected after the ignition switch is turned ON, the seat belt warning light will illuminate until the belt is fastened. If you start to drive without the seat belt fastened or you unfasten the seat belt when you drive under 20km/h, the corresponding warning light will continue to illuminate until you fasten the seat belt.

If you continue to drive without the seat belt fastened or you unfasten the seat belt when you drive over 20km/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 (if equipped)

As a reminder to the front passenger, the front passenger's seat belt warning lights will illuminate for approximately 6 seconds each time you turn the ignition switch ON regardless of belt fastening. If the seat belt is not fastened when the ignition switch is turned ON or if it is disconnected after the ignition switch is turned ON, the seat belt warning light will illuminate until the belt is fastened.

If you start to drive without the seat belt fastened or you unfasten the seat belt when you drive under 20km/h, the corresponding warning light will continue to illuminate until you fasten the seat belt.

If you continue to drive without the seat belt fastened or you unfasten the seat belt when you drive over 20km/h, the seat belt warning chime will sound for approximately 100 seconds and the corresponding warning light will blink.

#### **A** 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 properly be seated as instructed in this manual.

## *i* Information

- Although the front passenger seat is not occupied, the seat belt warning light will blink or illuminate for 6 seconds. Also, when the front passenger gets off the vehicle while the warning is activating, the warning may continue for 6 seconds even after the passenger gets off.
- The front passenger's seat belt warning may operate when luggage, laptop or other electronic device is aced on the front passenger seat.

#### Seat belt restraint system

#### 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.



## **A** WARNING

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

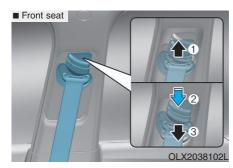
 Position the lap portion of the seat belt as low as possible across your hips, not on your waist, so that it fits snugly. This allows your strong pelvic bones to absorb the force of the crash, reducing the chance of internal injuries.

- 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.

#### 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.

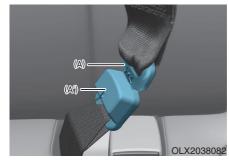
When it is released, the belt should automatically draw back into the retractor. If this does not happen, check the belt to be sure it is not twisted, then try again.

## Rear center seatbelt (3rd row)

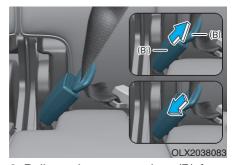


To fasten your seatbelt:

 Extract the tongue plate (A) from the hole on the belt assembly cover.



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

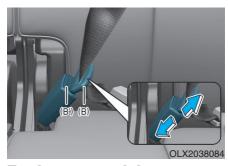


 Pull out the tongue plate (B) from the pocket. Pull the tongue plate (B) and insert it into the buckle (B') until an audible "click" is heard, indicating the latch is locked. Make sure the belt is not twisted.

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.



To release your seatbelt:

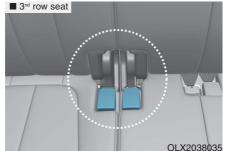
1.Press the release button on the buckle (B') and remove the tongue plate (B).



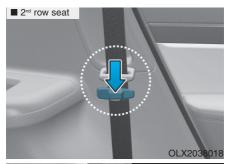
 To retract the rear center seatbelt, insert the tongue plate into the web release hole (A'). Pull up on the seat belt web and allow the webbing to retract automatically. Insert the tongue plate (A) into the hole on the belt assembly cover.

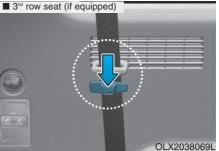
#### Stowing the rear seat belt





 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.

## **A** 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 and rear passengers (if equipped) Pre-tensioner Seat Belts (Retractor Pretensioner). 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 pre-tensioner seat belts may be activated in crashes where the frontal or side collision(s) is severe enough, together with the air bags.

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 pretensioner will activate and pull the seat belt into tighter contact against the occupant's body.

- 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).

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.

## **!** CAUTION

If equipped with rollover sensor

The pre-tensioner will activate not only in a frontal collision but also in a side collision or rollover, if the vehicle is equipped with a side or curtain air bag.

## **A** CAUTION

Without rollover sensor

The pre-tensioner will activate not only in a frontal collision but also in a side collision, if the vehicle is equipped with a side or curtain air bag.

### **A** 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.

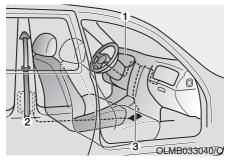
- NEVER inspect, service, repair or replace the pre-tensioners yourself. We recommend that you have the pre-tensioners inspected, serviced, repaired or replaced by an authorized HYUNDAI dealer.
- Do not hit the seat belt assemblies.

### **A** 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.

## **A** CAUTION

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



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

#### 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 6 seconds after the ignition switch is placed 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, we recommend the pre-tensioner seat belts and/or SRS control module be inspected by an authorized HYUNDAI dealer as soon as possible.

## Information

- Both the driver's and front passenger's pre-tensioner seat belts may be activated in certain frontal or side collisions.
- 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.

#### **A** WARNING

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 countries 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 countries, so you should be aware of the specific requirements in your country, 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" in this chapter.

## **A** 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 Safety Standards of your country. Before buying any Child Restraint System, make sure that it has a label certifying that it meets Safety Standard of your country.

The Child Restraint System must be appropriate for your child's height and weight. Check the label on the Child Restraint System for this information. Refer to "Child Restraint Systems" 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.

## **A** 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, properly belted, and with the seatbacks upright.

#### 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. We recommend that you consult an authorized HYUNDAI dealer.

#### CHILD RESTRAINT SYSTEM (CRS)

Our recommendation: Children always in the rear

## **A** WARNING

Always properly restrain children in the vehicle. Children of all ages are safer when riding in the rear seats. Never place a rearward-facing Child Restraint System on the front passenger seat, unless the air bag is deactivated.

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. Children too large for a Child Restraint System must use the seat belts provided.

Most countries have regulations 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 countries, so you should be aware of the specific requirements in your country, 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 your country.

## 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.

## **A** WARNING

- Always follow the Child Restraint System manufacturer's instructions for installation and use.
- Always properly restrain your child in the Child Restraint System.
- 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, we recommend a HYUNDAI dealer to check the Child Restraint System, seat belts, ISOFIX anchorages and top-tether anchorages.
- Be especially careful when installing a child restraint on the center seating position in the second row as it is narrower than the outboard positions. A wide child restraint installed on the center seat may cover the safety belt buckles for the other seating positions. Do not allow someone to ride in a seating position where the safety belt buckle is covered by a child restraint.
- A child restraint in the center seating position may also contact or push up against the safety belt buckles, which can damage the buckles and make them unusable or unsafe. Always check that the child restraint does not contact any of the safety belt buckles. Check the placement of the child restraint regularly to make sure that it has not shifted and come into contact with any of the safety belt buckles.

## 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 Safety Standards of your country.
  - A Child Restraint System may only be installed if it was approved in accordance with the requirements of ECE-R44 or ECE-R129.
- 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. There are different types of rearward-facing Child Restraint Systems: infant-only Child Restraint Systems can only be used rearward-facing. 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.

Keep 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.



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 forwardfacing 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)

#### **A** WARNING

Before installing your Child Restraint System always:

Read and follow the instructions provided by the manufacturer of the Child Restraint System.

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

### **A** WARNING

If the vehicle headrest prevents proper installation of a Child Restraint System, the headrest 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-toside 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 confortable 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.

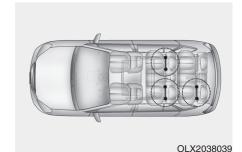
# ISOFIX anchorage and top-tether anchorage (ISOFIX anchorage system) for children

The ISOFIX 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 ISOFIX system uses anchors in the vehicle and attachments on the Child Restraint System. The ISOFIX system eliminates the need to use seat belts to secure the Child Restraint System to the rear seats.

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

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

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

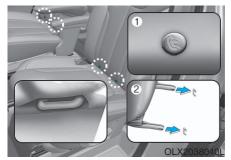


ISOFIX anchorages have been provided in the left and right outboard rear seating positions.

Their locations are shown in the illustration.

#### **A** WARNING

Do not attempt to install a Child Restraint System using ISOFIX anchorages in the rear center seating position. There are no ISOFIX anchorages provided for this seat. Using the outboard seat anchorages, for the CRS installation on the rear center seating position, can damage the anchorages.



[1]: ISOFIX Anchorage Position Indicator (Type A- ( ), Type B- ( ),

[2]: ISOFIX Anchorage

ISOFIX anchorages are located between the seatback and the seat cushion of the rear seat left and right outboard seating positions, indicated by the symbols.

Their locations are shown in the illustration.

To use the ISOFIX anchorages, push the upper portion of the ISOFIX anchorage cover.

#### Securing a Child Restraint System with the "ISOFIX Anchorage System"

To install an i-Size or ISOFIX-compatible Child Restraint System in either of the rear outboard seating positions:

- 1. Move the seat belt buckle away from the ISOFIX anchorages.
- 2. Move any other objects away from the anchorages that could prevent a secure connection between the Child Restraint System and the ISOFIX anchorages.
- Place the Child Restraint System on the vehicle seat, then attach the seat to the ISOFIX anchorages 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 ISOFIX attachments on the Child Restraint System to the ISOFIX anchorages.

#### **A** WARNING

Take the following precautions when using the ISOFIX 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 ISOFIX system inspected by your dealer after an accident. An accident can damage the ISOFIX system and may not properly secure the Child Restraint System.

### Securing a Child Restraint System seat with "Top-tether Anchorage" system





Top-tether anchorages for Child Restraint Systems are located on the rear of the rear passenger seatbacks.



- Route the Child Restraint System top-tether strap over the seatback. Placing the top tether strap, please follow the instructions of the Child Restraint System manufacturer.
- Connect the top-tether strap to the top-tether anchorage, 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.

### **A** 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 ISOFIX top-tether anchorage. 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.

Under no circumstances are they to be used for adult seat belts or harnesses or for attaching other items or equipment to the vehicle.

## Suitability of each seating position for belted & ISOFIX Child Restraint Systems (CRS) according to UN regulations (Information for use by vehicle users and CRS manufacturers)

- · Yes: Suitable for fitment of the designated category of CRS
- · No : Not suitable for fitment of the designated category of CRS
- "-": Not applicable, F: Forward facing, R: Rearward facing
- The table is based on LHD vehicle. Except for the front passenger seat, the table is valid for RHD vehicle. For RHD vehicle front passenger seat, please use information for the seating position number 3.
- If your car is for seven seater, seating position number 5 is not available.

CRS categories		Seating position								
		1	2	3	4	5	6	7	8	9
Universal belted CRS		-	-	Yes¹) F, R	Yes (F, R)	Yes (F, R)	Yes (F, R)	No	Yes (F, R)	No
i-size CRS	ISOFIX CRF : F2, F2X, R1, R2	-	-	-	No	-	No	No	-	-
Carry-cot (ISOFIX lateral facing CRS)	ISOFIX CRF: L1, L2	-	-	-	No	-	No	No	-	-
ISOFIX infant* CRS (*: ISOFIX baby CRS)	ISOFIX CRF: R1	-	-	-	Yes (R)	-	Yes (R)	Yes <sup>2)</sup> (R)	-	-
ISOFIX toddler CRS - small	ISOFIX CRF : F2,F2X, R2,R2X	-	-	-	Yes (F, R)	-	Yes (F, R)	Yes <sup>2)</sup> (F, R)	-	-
ISOFIX toddler CRS – large* (* : not booster seats)	ISOFIX CRF : F3, R3	-	-	-	Yes (F, R)	-	Yes (F, R)	Yes <sup>2)</sup> (F, R)	-	-
Booster Seat – reduced Width	ISO CRF : B2	-	-	-	Yes <sup>2)</sup>	-	Yes <sup>2)</sup>	Yes <sup>2)</sup>	-	-
Booster Seat – full Width	ISO CRF : B3	-	-	-	Yes <sup>2)</sup>	-	Yes <sup>2)</sup>	Yes <sup>2)</sup>	-	-

Note 1) : Should be adjusted seat pumping with highest position.

Note 2): Should be removed the head restraint, when CRS is unstable due to head restraint.

# It is recommended to move the 2nd row seat forward, when CRS is unstable in the 3rd row.

<sup>★</sup> Never place a rearward facing Child Restraint System on the front passenger seat, unless the air bag is deactivated.

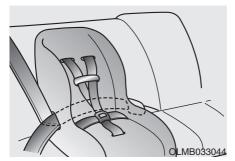


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Seat umber	Position in the vehicle				
1	Front left				
2	Front center				
3	Front right				
4	2 <sup>nd</sup> row left				
5	2 <sup>nd</sup> row center				
6	2 <sup>nd</sup> row right				
7	3 <sup>nd</sup> row left				
8	3 <sup>nd</sup> row center				
9	3 <sup>nd</sup> row right				

## Securing a Child Restraint System with a lap/shoulder belt

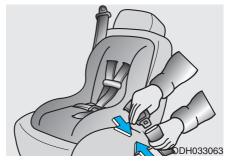
When not using the ISOFIX system, all Child Restraint Systems must be secured to a rear seat with the lap part of a lap/shoulder belt.



Installing a Child Restraint System with a lap/shoulder belt

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

 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.



Fasten the lap/shoulder belt latch into the buckle. Listen for the distinct "click" sound.

## **i** Information

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

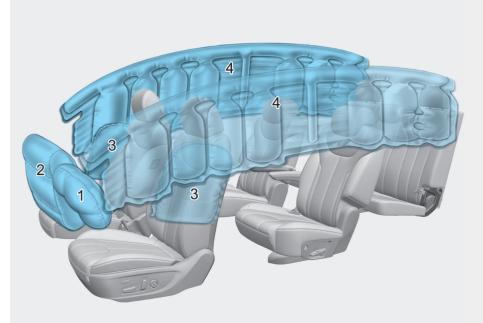


- Remove as much slack from the belt as possible by pushing down on the Child Restraint System while feeding the shoulder belt back into the retractor.
- 4. Push and pull on the Child Restraint System to confirm that the seat belt is holding it firmly in place.

If your Child Restraint System manufacturer recommends the use of a top-tether with the lap/shoulder belt, see page 2-46.

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.

## AIR BAG - SUPPLEMENTAL RESTRAINT SYSTEM



- 1. Driver's front air bag
- 2. Passenger's front air bag
- 3. Side air bag\*
- 4. Curtain air bag\*
- \* : if equipped

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

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The vehicles are 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.

#### **A** WARNING

#### AIR BAG SAFETY PRECAUTIONS

ALWAYS use seat belts 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 engine 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.

### Where are the air bags?

# Driver's and passenger's front air bags



■ Passenger's front air bag



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.

### **A** 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, cellular phone holder, cup holder, perfume 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 (if equipped)





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, angle, speed and point of impact.

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.

# **A** WARNING

To reduce the risk of serious injury or death from an inflating side 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 ignition switch is in the ON position as this may cause the side air bags to inflate.
- If the seat or seat cover is damaged, we recommend that the system be serviced by an authorized HYUNDAI dealer.

# Curtain air bags (if equipped)





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, angle, speed and impact.

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

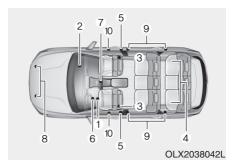
### **A** WARNING

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 open or repair the side curtain air bags.

# How does the air bags system operate?



The SRS consists of the following components:

- (1) Driver's front air bag module
- (2) Passenger's front air bag module
- (3) Side air bag modules
- (4) Curtain air bag modules
- (5) Retractor pre-tensioner
- (6) Air bag warning light
- (7) SRS control module (SRSCM)/ Rollover sensor (if equipped)
- (8) Front impact sensors
- (9) Side impact sensors (acceleration) (if equipped)

(10) Side impact sensors (pressure) (if equipped)

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 six seconds when the ignition switch is in the ON position.
- The light stays on after illuminating for approximately six seconds.
- The light comes on while the vehicle is in motion.
- The light blinks when the engine is running.

We recommend that 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 ignition switch is in the ON position.
- 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.

- Air bag deployment depends on a number of factors including vehicle speed, angles of impact and the density and stiffness of the vehicles or objects which your vehicle impacts during a collision. The determining factors are not limited to those mentioned above.
- 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 space to inflate. It is recommended that drivers sit as far as possible between the center of the steering wheel and the chest while still maintaining control of the vehicle.



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



Upon deployment, tear seams molded directly into the pad covers 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.





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.

### **A** 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.

### **A** 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.
- We recommend that 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.

#### Do not install a Child Restraint System on the front passenger seat



Never install a Child Restraint System in the front passenger seat, unless the air bag is deactivated

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# **▲** 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

### **A** 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 nonequivalent parts may adversely affect the collision and airbag deployment performance.

To ensure correct function of the airbag system we recommend to replace the bumper with genuine Hyundai part or the equivalent (of the genuine part) specified for your vehicle.

- Place the ignition switch to the LOCK/OFF or ACC position, when the vehicle is being towed to prevent inadvertent air bag deployment.
- We recommend that all air bag repairs are conducted by an authorized HYUNDAI dealer.



- 1. SRS control module/Rollover sensor \*
- 2. Front impact sensor
- 3. Side pressure sensor (front)\*
- 4. Side impact sensor\*
- 5. Side impact sensor\*
- \*: if equipped











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#### Air bag inflation conditions



Front air bags

Front air bags are designed to inflate in a frontal collision depending on the severity, speed or angles 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, speed or angles of impact resulting from a side impact collision.

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.

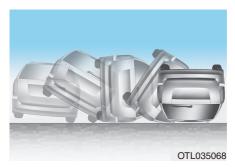
However, side and curtain air bags may inflate depending on the severity, vehicle speed and angles of impact.



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.

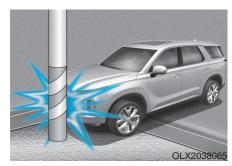


Front air bags may not inflate in rollover accidents because front air bag deployment would not provide additional occupant protection.

# **i** Information

- Vehicles equipped with rollover sensor The side and curtain air bags may inflate in a rollover situation, when it is detected by the rollover sensor.
- Vehicles not equipped with rollover sensor

The side and/or curtain air bags may inflate when the vehicle is rolled over by a side impact collision, if the vehicle is equipped with side and/or curtain air bags.



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.

#### **SRS** care

The SRS is virtually maintenancefree and there are no parts you can safely service by yourself. If the SRS air bag warning light does not illuminate when the ignition switch is in the ON position, or continuously remains on, we recommend that the system be immediately inspected by an authorized HYUNDAI dealer.

We recommend 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 be performed by an authorized HYUNDAI dealer. Improper handling of the SRS system may result in serious personal injury.

#### **A** 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.
- We recommend that inflated air bags be 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. We recommend that you 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 ignition switch is in the ON position may cause the air bags to inflate.

# 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 (if equipped)



Air bag warning labels are attached to alert the 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 Owner's Manual.

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# ACCESSING YOUR VEHICLE Remote key (if equipped)



Your HYUNDAI uses a remote key, which you can use to lock or unlock a door (and tailgate) and even start the engine.

- 1. Door Lock
- 2. Door Unlock
- 3. Tailgate Unlock

#### Locking

To lock:

- 1. Close all doors, engine hood and tailgate.
- 2. Press the Door Lock button (1) on the remote key.

- 3. The doors will lock. The hazard warning lights will blink. Also, the outside rearview mirror will fold, if 'Convenience → Welcome mirror/light → On door unlock' is selected from the User Settings mode on the LCD display. For more details, refer to "LCD Display" in this chapter.
- 4. Make sure the doors are locked by checking the position of the door lock button inside the vehicle.

#### **A** WARNING

Do not leave the keys in your vehicle with unsupervised children. Unattended children could place the key in the ignition switch and may operate power windows or other controls, or even make the vehicle move, which could result in serious injury or death.

# Unlocking

To unlock:

1. Press the Door Unlock button (2) on the remote key.

2. The doors will unlock. The hazard warning lights will blink two times. Also, the outside rearview mirror will unfold, if 'Convenience → Welcome mirror/light → On door unlock' is selected from the User Settings mode on the LCD display. For more details, refer to "LCD Display" in this chapter.

# *i* Information

After unlocking the doors, the doors will lock automatically after 30 seconds unless a door is opened.

### Tailgate unlocking

To unlock:

- Press the Tailgate Unlock button

   on the remote key for more than one second.
- 2. The hazard warning lights will blink two times.

# *i* Information

The word "HOLD" is written on the button to inform you that you must press and hold the button for more than one second.

#### Start-up

For detailed information refer to "Key Ignition Switch" in chapter 5.

#### NOTICE

To prevent damaging the remote key:

- Keep the remote key away from water or any liquid and fire. If the inside of the smart key gets damp (due to drinks or moisture), or is heated, internal circuit may malfunction and may void the vehicle warranty.
- Avoid dropping or throwing the remote key.
- Protect the remote key from extreme temperatures.

### Mechanical key



If the remote key does not operate normally, you can lock or unlock the door by using the mechanical key.

To unfold the key, press the release button then the key will unfold automatically.

To fold the key, fold the key manually while pressing the release button.

#### NOTICE

Do not fold the key without pressing the release button. This may damage the key.

### Remote key precautions

The remote key will not work if any of the following occur:

- The key is in the ignition switch.
- You exceed the operating distance limit (about 10 m [30 feet]).
- The remote key battery is weak.
- Other vehicles or objects may be blocking the signal.
- The weather is extremely cold.
- The remote key is close to a radio transmitter such as a radio station or an airport which can interfere with normal operation of the remote key.

If the remote key does not work correctly, open and close the door with the mechanical key. If you have a problem with the remote key, it is recommended that you contact an authorized HYUNDAI dealer.

If the remote 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.

Avoid placing the remote key and your mobile phone in the same location and always try to maintain an adequate distance between the two devices.

# Information

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. If the keyless entry system is inoperative due to changes or modifications not expressly approved by the party responsible for compliance, it will not be covered by your manufacturer's vehicle warranty.

#### NOTICE

Keep the remote key away from electromagnetic materials that block electromagnetic waves to the key surface.

### Battery replacement



If the remote key is not working properly, try replacing the battery with a new one.

Battery Type: CR2032 To replace the battery:

- 1. Insert a slim tool into the slot and gently pry open the cover.
- 2. Using a screw driver, remove the battery cover.
- 3. Remove the old battery and insert a new battery. Make sure the battery position is correct.
- Reinstall the battery cover and key cover in the reverse order of removal.

If you suspect your remote key might have sustained some damage, or you feel your remote key is not working correctly, it is recommended that you contact an authorized HYUNDAI dealer.

# **i** 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.

#### **Smart key (if equipped)**





Your HYUNDAI uses a Smart Key, which you can use to lock or unlock a door (and tailgate) and even start the engine.

- 1. Door Lock
- 2. Door Unlock

- 3. Tailgate Unlock
- 4. Remote start (if equipped)

### Locking



#### To lock:

- 1. Close all doors, engine hood and tailgate.
- Either press the door handle button or press the Door Lock button
   on the smart key.

- 3. The hazard warning lights will blink. Also, the outside rearview mirror will fold, if 'Convenience → Welcome mirror/light → On door unlock' is selected from the User Settings mode on the LCD display. For more details, refer to "LCD Display" in this chapter.
- Make sure the doors are locked by checking the position of the door lock button inside the vehicle.

# Information

The door handle button will only operate when the smart key is within 0.7~1 m (28~40 in.) from the outside door handle.

Even though you press the outside door handle button, the doors will not lock and the chime will sound for three seconds if any of the following occur:

- The Smart Key is in the vehicle.
- The Engine Start/Stop button is in ACC or ON position.
- Any door except the tailgate is open.

### **A** WARNING

Do not leave the Smart Key in your vehicle with unsupervised children. Unattended children could press the Engine Start/ Stop button and may operate power windows or other controls, or even make the vehicle move, which could result in serious injury or death.

#### Unlocking

To unlock:

- 1. Carry the Smart Key.
- 2. Either press the door handle button or press the Door Unlock button (2) on the smart key.
- 3. The doors will unlock. The hazard warning lights will blink two times. Also, the outside rearview mirror will unfold, if 'Convenience → Welcome mirror/light → On door unlock' is selected from the User Settings mode on the LCD display. For more details, refer to "LCD Display" in this chapter.

# *i* Information

- The door handle button will only operate when the smart key is within 0.7~1 m (28~40 in.) from the outside door handle. Other people can also open the doors without the smart key in possession.
- After unlocking the doors, the doors will lock automatically after 30 seconds unless a door is opened.

## Tailgate unlocking

To unlock:

- 1. Carry the smart key.
- 2. Either press the tailgate handle button or press the Tailgate Unlock button (3) on the smart key for more than one second.
- 3. The hazard warning lights will blink two times.

# *i* Information

- Type A: Non-power Tailgate
  - The Tailgate Unlock button (3) will only unlock the tailgate. It will not release the latch and open the tailgate automatically. If the Tailgate Unlock button is used, someone must still press the tailgate handle button to open the tailgate.
  - After unlocking the tailgate, the tailgate will lock automatically after 30 seconds unless the tailgate is opened.
- Type B : Power tailgate

The power tailgate can be operated when the engine is not running. However, the power tailgate consumes large amounts of vehicle electric power. To prevent the battery from being discharged, do not operate consecutively (more than approximately 10 times).

#### Start-up

You can start the engine without inserting the key. For detailed information refer to the Engine Start/Stop button in chapter 5.

### Smart key additional feature

- Activating the feature
  - With the engine off, press the lock button on the smart key and immediately press the unlock button along with the lock button for more than 4 seconds. When the feature is activated, the hazard warning lights will blink four times.
- · How the feature works
  - When the feature is activated, the doors or tailgate will not lock or unlock even though the outside door handle button or tailgate handle release switch is pressed with the smart key in your possession. Also, Welcome System (if equipped) and Smart Tailgate (if equipped) will not operate even though you approach the vehicle with the smart key.
- Deactivating the feature
   Press the door lock or unlock button on the smart key, the feature will deactivate.

#### NOTICE

To prevent damaging the smart key:

- Keep the smart key away from water or any liquid and fire. If the inside of the smart key gets damp (due to drinks or moisture), or is heated, internal circuit may malfunction and may void the vehicle warranty.
- Avoid dropping or throwing the smart key.
- Protect the smart key from extreme temperatures.

# Remote start (if equipped, for Middle East)



You can start the engine and turn on the climate system by pressing the remote start button (4) outside the vehicle.

To start and stop engine remotely:

- 1. Press the door lock button (1), and then the hazard warning lights blink once to alert you.
- 2. Press the Remote Start button (4) for more than 2 seconds to start the engine within 4 seconds after pressing the door lock button (1).
- 3. While remote starting, the hazard warning lights blink 3 times. If you want to stop the engine, press the Remote Start button (4) again.

The climate system will be continuously maintained, as selected when the engine is restarted. If the climate system is turned off before you have stopped the engine, the climate system does not operate when you start the engine remotely.

If someone without a designated smart key rides your vehicle while remote starting, the engine is automatically stopped for security matter.

# Information

After remotely starting the engine, the engine will turn off automatically after 10 minutes if you do not ride your vehicle matter.

# **!** CAUTION

- The remote start will not work if you exceed the operating distance limit (about 10 m).
- Avoid idling the engine for prolonged periods to follow the emission regulations in your country.
- Laws in your country may restrict the use of remote start. You should check country regulations before using this remote starting system.
- It is only possible to start the engine remotely when shifted to P (Park).
- If the hood or the tailgate is opened, you cannot start the engine remotely.

### Mechanical key

If the Smart Key does not operate normally, you can lock or unlock the door by using the mechanical key.



Move the release lever in the direction of the arrow (1) and then remove the mechanical key (2). Insert the mechanical key into the key hole on the door.

To reinstall the mechanical key, put the key into the hole and push it 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 should 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 cellular phone.
- Another vehicle's smart key is being operated close to your vehicle.

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 that you 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.

Avoid placing the smart key and your mobile phone in the same location and always try to maintain an adequate distance between the two devices.

# Information

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. If the keyless entry system is inoperative due to changes or modifications not expressly approved by the party responsible for compliance, it will not be covered by your manufacturer's vehicle warranty.

#### NOTICE

Keep the smart key away from electromagnetic materials that blocks electromagnetic waves to the key surface.

#### NOTICE

Always have the smart key with you when leaving the vehicle. If the smart key is left near the vehicle, the vehicle battery may be 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:

- 1. Remove the mechanical key.
- 2. Use a slim tool to pry open the rear cover of the smart key.
- 3. Remove the old battery and insert the new battery. Make sure the battery position is correct.
- 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.

# **i** 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

The immobilizer system protects your vehicle from theft. If an improperly coded key (or other device) is used, the engine's fuel system is disabled.

When the ignition switch is placed in 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 ignition switch to the LOCK/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 (i.e., 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.

#### **A** 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.

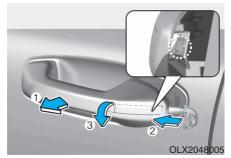
# NOTICE

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.

#### **DOOR LOCKS**

# Operating door locks from outside the vehicle

#### Mechanical key





[A]: Unlock, [B]: Lock

First, pull the outside door handle (1) and push the hook (2) located inside of outside door handle by using the mechanical key. And remove the cover (3) and lower the cover downward not to be damaged.

Turn the key toward the rear of the vehicle to lock and toward the front of the vehicle to unlock.

If you lock/unlock the driver's door with a key, a driver's door will lock/unlock.

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.

### 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





To lock the doors, press the button on the outside door handle while carrying the smart key with you or press the door lock button on the smart key.

To unlock the doors, press the button on the outside door handle while carrying the smart key with you or press the door unlock button on the smart key.

Once the doors are unlocked, they may be opened by pulling the door handle.

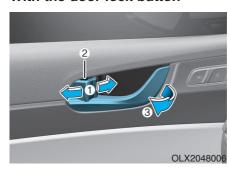
When closing the door, push the door by hand. Make sure that doors are closed securely.

# 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 locks from inside the vehicle

#### With the door lock button



- To unlock a door, push the door lock button (1) to the "Unlock" position. The red mark (2) on the door lock button will be visible.
- To lock a door, push the door lock button (1) to the "Lock" position. If the door is locked properly, the red mark (2) on the door lock button will not be visible.
- To open a door, pull the door handle (3) outward.
- Front doors cannot be locked if the key is in the ignition switch and any front door is open.

 Doors cannot be locked if the smart key is in the vehicle and any door is open.

# 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 central door lock/unlock switch



When pressing the (1) 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 central door lock switch is pressed.
- If the smart key is in the vehicle and any door is opened, the doors will not lock even though the lock button (1) of the central door lock switch is pressed.

When pressing the  $(\frac{1}{1})$  portion (2) on the switch, all vehicle doors will unlock.

### **▲** 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.

#### **A** WARNING

Do not leave children or animals unattended in your vehicle. An enclosed vehicle can become extremely hot, causing death or serious injury to unattended children or animals who cannot escape 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.

# **A** WARNING

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, press the P(Park) button, engage the parking brake, and place the ignition switch in the LOCK/OFF position, close all windows, lock all doors, and always take the key with you.

#### **A** WARNING

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.

#### **A** WARNING

If you stay in the vehicle for a long time while the weather is very hot or cold, there are risks of injuries or danger to life. Do not lock the vehicle from the outside when someone is in the vehicle.

#### Auto door lock/unlock features

# Impact sensing door unlock system (if equipped)

All doors will be automatically unlocked when an impact causes the air bags to deploy.

# Speed sensing door lock system (if equipped)

All doors will be automatically locked when vehicle speed exceeds 15 km/h (9 mph).

You can activate or deactivate the Auto Door Lock/Unlock features from the User Settings mode on the LCD display. For more details, refer to "LCD Display" in this chapter.

# Child-protector rear door locks (if equipped)



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.

# **A** WARNING

If children accidently 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.

# Electronic child safety lock system (if equipped)



If you push the Electronic child safety lock button and the indicator illuminates, rear passengers can not open the rear door from inside the vehicle. To cancel the Electronic child safety lock system, you push the Electronic child safety lock system button one more time and then the indicator turns off.

The Safe Exit Assist (SEA) system is operated when the Electronic child safety lock system is activated and the Safe Exit Assist (SEA) function is selected on the cluster. The Safe Exit Assist (SEA) system does not activate automatically the Electronic child safety lock system.

The Electronic child safety lock system can be operated for approximately 10 minutes after the ignition key is removed or turned to the LOCK (or OFF) position.

If your vehicle is equipped with the Electronic child safety lock system, the Child-protector rear door locks which is manually operated is not provided.

\* If Electronic child safety lock system is activated, rear passenger can not open or close the rear window also. For more details, refer to "Windows" in this chapter.

# **A** CAUTION

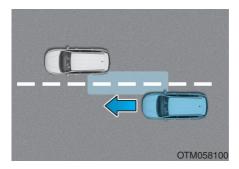


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If the Electronic child safety lock system is not operated when pushing the Electronic child safety lock button, the message is displayed and the alarm will sound.

In this case, we recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.

# Safe Exit Assist (SEA) system (if equipped)



1. The Safe Exit Assist system is provided to help prevent the passengers from opening door by warning the passengers when an approaching vehicle from the rear area is detected after the vehicle stops.

- 2.When an approaching vehicle from the rear area is detected after the vehicle stops, the rear door is not unlocked even when the driver tries to unlock the rear door using the Electronic child safety lock button. The "Check surroundings then try again" warning message appears on the cluster and a warning sounds.
  - However if you press the button within 10 seconds after the warning message appears (the indicator on the button extinguishes) the system judges that the driver unlocked the door acknowledging the rear status and the lock is released regardless of the rear status.
- 3.When an approaching vehicle from the rear is detected the moment the door is opened, the "Watch for traffic" warning message appears on the cluster and a warning sounds.
  - The above 2 and 3 functions are activated when you select "Driving Assist → Blind-spot safety → Safe Exit Assist" from the User Settings mode on the cluster.

- The Electronic child safety lock system will operate for approximately 10 minutes after the ignition key is removed or turned to the LOCK (or OFF) position. After about 10 minutes, the indicator on the button turns off and you can not deactivate the Electronic child safety lock system. To deactivate the Electronic child safety lock system, press the Electronic child safety lock button again with the ignition switch in the ON position or after starting the engine.
- When the power is supplied again after removing the battery or battery discharge while the child safety lock in the lock position, press the rear door lock button once again to match the state of the indicator on the rear door lock button and actual status of the rear door child safe lock.
- If the airbag is activated while the rear door lock button is ON (the indicator on the button illuminates) it automatically switches OFF and the rear door is unlocked.

### **A** CAUTION

- The Safe Exit Assist (SEA) system may not operate normally if there is any vehicle or obstacle at the rear area of your vehicle.
- The Safe Exit Assist (SEA) system may not operate normally when a vehicle is coming rapidly two lanes over from your vehicle or a vehicle is approaching at a fast speed from the rear in the lane next to your vehicle.
- The Safe Exit Assist (SEA) system may be activated later than normal or may not operate normally if a vehicle is approaching fast from the rear of your vehicle.
- The Safe Exit Assist (SEA) system will not operate if there is a malfunction with the Blind-Spot Collision Warning (BCW) system as follows:
  - When the BCW warning message appears

- When the BCW sensor or the sensor surrounding is polluted or covered
- When the BCW does not warn or warns wrongly

For more details, refer to cautions and limitations in "Blind-Spot Collision Warning (BCW)" in chapter 5.

#### **A** WARNING

- The system does not detect every obstacle approaching the vehicle exit.
- The driver and passenger are responsible for any accident that occurs while exiting the vehicle. Always check the surrounding before you exit the vehicle.

# Rear Occupant Alert (ROA) system (if equipped)

The Rear Occupant Alert (ROA) system is provided to help prevent exiting the vehicle with the rear passenger left in the vehicle.

- 1st alert
  - When you open the front door after opening and closing the rear door and turning off the engine, the "Check rear seats" warning message appears on the cluster.
- · 2nd alert
  - After the 1st alert the 2nd 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 activate for about 25 seconds. If the system continues to detect the movement the alert operates up to 8 times.
  - Unlock the door with the remote key or smart key to stop the alert.
  - The system detects movement in the vehicle for 24 hours after the door is locked.

- \* The 2nd alert is activated only after the prior activation of the 1st alert.
- ※ You can activate or deactivate the Rear Occupant Alert (ROA) system from the User Settings mode on the LCD display. (Convenience → Rear Occupant Alert)



- Make sure that all the windows are closed. If the window is open, the alert may activate by the sensor detecting an unintended movement (e.g. wind or bugs).
- If you do not want to use the Rear Occupant Alert (ROA) system, press OK button on the steering wheel when the

1st alert is displayed on the cluster. Doing so will deactivate the 2nd alert once.

# **A** CAUTION

- If boxes or objects are stacked in the vehicle, the system may not detect the obstacle. Also, the warning may generate if the box or object falls off.
- The sensor may not operate normally if the senor is obscured by foreign substances.
- The alert may activate if movement in the driver or passenger seat is detected.
- The alert may activate with the doors locked due to car wash or surrounding vibration or noise.
- Inside movement detection is stopped under remote start (if equipped) status.

## **▲** WARNING

 Even if your vehicle is equipped with the Rear Occupant Alert (ROA) system, always make sure you check the rear seat before you get off the vehicle.

The alert may not operate if:

- The movement does not continue for a certain period of time or the movement is small.
- The rear passenger is covered with an obstacle such as a blanket.
- Also, always be cautious of the passenger's safety as the detection function and 2nd alert may not operate according to the surrounding environment and certain conditions.
- If a child sits on a vehicle seat without a child restraint system.

### 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 remote key or smart key.
- The tailgate is opened without using the remote key or 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 remote key or smart key.

The Theft Alarm System automatically sets 30 seconds after you lock the doors and the tailgate. For the system to activate, you must lock the doors and the tailgate from outside the vehicle with the remote key or smart key or by pressing the button on the outside of the door handles with the smart key in your possession.

Once the security system is set, opening any door, the tailgate, or the hood without using the remote key or smart key will cause the alarm to activate.

The Theft Alarm System will not set if the hood, the tailgate, or any door is not fully closed. If the system will not set, check the hood, the tailgate, 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 remote key or smart key, open the doors by using the mechanical key and place the ignition switch in the ON position (for remote key) or start the engine (for smart key) and wait for 30 seconds.
- When the system is disarmed but a door or tailgate is not opened within 30 seconds, the system will be rearmed.



# i Information

Vehicles equipped with a theft alarm system will have a label attached to the vehicle with the following words:

- 1. WARNING
- 2. SECURITY SYSTEM

### DRIVER POSITION MEMORY SYSTEM (IF EQUIPPED)



The Driver Position Memory System is provided to store and recall the following memory settings with a simple button operation.

- Driver's seat position
- Outside rearview mirror position
- Instrument panel illumination intensity
- Head Up Display (HUD) position and brightness (if equipped)

## **A** WARNING

Never attempt to operate the driver position memory system while the vehicle is moving.

This could result in loss of control, and an accident causing death, serious injury, or property damage.

### *i* Information

- If the battery is disconnected, the memory settings will be erased.
- If the Driver Position Memory System does not operate normally, we recommend that you have the system checked by an authorized HYUNDAI dealer.

### **!** CAUTION

To prevent the battery from being discharged, use the driver position memory system while engine is running and the vehicle stops.

# **Storing memory positions**

- 1. Shift to P (Park) while the ignition switch is in the ON position.
- 2. Adjust the driver's seat position, outside rearview mirror position, instrument panel illumination intensity and head-up display height/brightness to the desired position.

- Press the SET button. The system will beep once and notify you "Press button to save settings"on the LCD display.
- 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 LCD display.

### **Recalling memory position**

- 1. Shift to P (Park) position.
- Press the desired memory button (1 or 2). The system will beep once, and then the driver's seat position, outside rearview mirror position, instrument panel illumination intensity and head-up display height/brightness will automatically adjust to the stored positions.
- "Driver 1 (or 2) settings applied" will appear on the LCD display.

## Information

- While recalling the "1" memory position, pressing the SET or 1 button temporarily stops the adjustment of the recalled memory position. Pressing the 2 button recalls the "2" memory position.
- While recalling the "2" memory position, pressing the SET or 2 button temporarily stops the adjustment of the recalled memory position. Pressing the 1 button recalls the "1" memory position.
- While recalling the stored positions, pressing one of the control buttons for the driver's seat, outside rearview mirror, instrument cluster illumination or head-up display will cause the movement of that component to stop and move in the direction that the control button is pressed.

## **Easy access function**

The system will move the driver's seat automatically as follows:

- With remote key
- It will move the driver's seat rearward and downward when the ignition key is removed.
- It will move the driver's seat forward and upward when the ignition key is inserted.
- With smart key
- It will move the driver's seat rearward and downward when the Engine Start/Stop button is pressed to the OFF position.
- It will move the driver's seat forward and upward when the Engine Start/Stop button is pressed to the ACC or START position.

You can activate or deactivate the Easy Access Function from the User Settings mode on the LCD display.

'Convenience → Seat (forward/backward) Easy Access → Off/Normal/Extended'.

'Convenience  $\rightarrow$  Seat (upward/downward) Easy Access'.

\* "Seat (upward/downward) Easy Access" function may not operate below the specific seat height for preventing injury of the passenger.

For more details, refer to "LCD Display" in this chapter.

# **A** CAUTION

Driver should be cautious when using this function to assure no injury to passenger or child on the back seat. In case of emergency the driver has to stop movement of front seat (when easy access feature is activated) by pressing SET button or any of the driver seat control switches.

# **Driver position memory system** reset

If the Driver position memory system does not work properly, initialize the system as follows.

#### How to initialize:

- Stop the vehicle and open the driver's door with the ignition switch in the ON position and the vehicle shifted to P (Park).
- Pull the driver's seat forward as far as possible and have the seatback upright as much as possible using the driver's seat forward/backward adjustment and seatback angle (recline) switches.
- Push the SET button and seat forward movement switch for 2 seconds simultaneously.

Initialization in the process:

- 1. Initialization begins as the alarm sounds.
- 2. The seat and seatback will automatically move backwards. The alarm sound will continue while the system is in operation.
- Initialization will be complete after the seat and seatback move to the center with an alarm sound. If, however, cases as follows occur, the initialization process will come to a stop and the alarm sound will stop as well.
  - When pushing driving position memory system button
  - When pushing driver's seat height adjustment switch
  - When driving speed exceeds 3 km/h
  - When the driver's door is closed

## **A** CAUTION

- If the reset is failed, initialize the system once again.
- Initialize the system after cleaning the obstacles surrounding of seat.
- After completing the initialization, adjust the driver position memory system again.

#### STEERING WHEEL

## **Electric power steering (EPS)**

The system assists you with steering the vehicle. If the engine is off or if the power steering system becomes inoperative, the vehicle may still be steered, but it will require increased steering effort.

Also, the steering effort becomes heavier as the vehicle's speed increases and becomes lighter as the vehicle's speed decreases for better control of the steering wheel.

Should you notice any change in the effort required to steer during normal vehicle operation, we recommend that the system be checked by an authorized HYUNDAI dealer.

### NOTICE

• If the Electric Power Steering System does not operate normally, the warning light (⊙!) will illuminate or blink on the instrument cluster. If the power assistance of steering fails, you will need to use more force to steer. We recommend that you take your vehicle to an authorized HYUNDAI dealer or to a service station and have the system checked as soon as possible.

 When abnormality is detected in the electric power steering system, to prevent a deadly accident, the steering assist function will stop. At this time, the warning light turns on or blinks on the cluster. The steering wheel may become difficult to control or operate. Have your vehicle checked immediately, after moving the vehicle to a safe zone.

## Information

The following symptoms may occur during normal vehicle operation:

- The steering effort may be high immediately after placing the ignition switch in the ON position.
- This happens as the system performs the EPS system diagnostics. When the diagnostics are completed, the steering wheel 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 EPS relay after the ignition switch is placed in the ON or LOCK/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.

### Tilt steering / Telescopic steering

### **A** WARNING

Never adjust the steering wheel while driving. You may lose steering control and cause severe personal injury, death or accidents.

# Information

After adjustment, sometimes the lockrelease lever may not lock the steering wheel.

It is not a malfunction. This occurs when two gears are not engaged correctly. In this case, adjust the steering wheel again and then lock the steering wheel.

### NOTICE

While adjusting the steering wheel height, please do not push or pull it hard since the fixture can be damaged.



Pull down the lock-release lever (1) on the steering wheel column and adjust the steering wheel angle (2) and position (3). Move the steering wheel, so it points toward your chest, not toward your face.

Make sure you can see the instrument panel warning lights and gauges.

After adjusting, pull up the lock-release lever (1) to lock the steering wheel in place. 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.

# Heated steering wheel (if equipped)



When the ignition switch 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.

- The heated steering wheel defaults to the OFF position whenever the ignition switch is in the ON position. However, if the Auto Comfort Control function is ON, the heated steering wheel will turn on and off depending on the outside temperature.
- Auto Comfort Control (for driver's seat) (if equipped)

The heated steering wheel automatically controls the steering wheel temperature depending on the ambient temperature when the engine is running. If the heated steering wheel switch is pushed, the heated steering wheel will have to be controlled manually.

To use this function, it must be activated from the Settings menu in the Audio / AVN system screen. Select:

 All menus → Setup → Vehicle → Heated / Ventilated Features

For more details, refer to the separately supplied manual with your vehicle

# 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



To sound the horn, press the area indicated by the horn symbol on your steering wheel. 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 you start driving, adjust the rearview mirror to the center on the view through the rear window.

### **A** WARNING

Make sure your line of sight is not obstructed. Do not place objects in the rear seat, cargo area, or behind the rear headrests which could interfere with your vision through the rear window.

## **A** 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.

## **A** 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 that 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 headlamps of the vehicles behind you during night driving.

Remember that you lose some rearview clarity in the night position.

# Electric Chromic Mirror (ECM) (if equipped)

The electric rearview mirror automatically controls the glare from the headlamp 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 head-lamp glare from vehicles behind you.

Whenever the shift button is placed in R (Reverse), the mirror will automatically go to the brightest setting in order to improve the driver's view behind the vehicle.



[1]: Indicator, [2]: ON/OFF button, [3]: Sensor

# To operate the electric rearview mirror:

 Press the on/off button (1) to turn the automatic dimming function on. The mirror indicator light will illuminate.

Press the on/off button to turn the automatic dimming function off. The mirror indicator light will turn off.

 The mirror defaults to the ON position whenever the ignition switch is turned on.

### 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 that may cause the liquid cleaner to enter the mirror housing.

### **Outside rearview mirror**



Be sure to adjust mirror angles before driving.

Your vehicle is equipped with both left-hand and right-hand outside rearview mirrors.

The mirror can be adjusted remotely with the remote switch.

The mirror heads can be folded to prevent damage during an automatic car wash or when passing through a narrow street.

## **A** WARNING

- The right outside rearview mirror is convex. In some countries, the left outside rearview mirror is also convex. Objects seen in the mirror are closer than they appear.
- Use your interior rearview mirror or turn your head and look to determine the actual distance of following vehicles when changing lanes.

## **A** WARNING

Do not adjust or fold the outside rearview 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 spray 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.

### Adjusting the rearview mirrors



- Move the lever (1) either to the L (left side) or R (right side) to select the rearview mirror you would like to adjust.
- Use the mirror adjustment control
   to position the selected mirror up, down, left or right.
- After adjustment, move the lever
   to the middle to prevent inadvertent adjustment.

#### NOTICE

- The mirrors stop moving when they reach the maximum adjusting angles, but the motor continues to operate while the switch is pressed. Do not press the switch longer than necessary, the motor may be damaged.
- Do not attempt to adjust the outside rearview mirror by hand otherwise the motor may be damaged.

# Folding the outside rearview mirror



### Manual type

To fold the outside rearview mirror, grasp the housing of the mirror and then fold it toward the rear of the vehicle.



Electric type

The outside rearview mirror can be folded or unfolded by pressing the switch.

- If 'Convenience → Welcome mirror/ light → On door unlock' is selected in the User Settings mode on the LCD display, the outside mirror will fold or unfold automatically as follows:
  - The mirror will fold or unfold when the door is locked or unlocked by the smart key.
  - The mirror will fold or unfold when the door is locked or unlocked by the button on the outside door handle.

 If 'Convenience → Welcome mirror/ light → On door unlock' and 'Convenience → Welcome mirror/ light → On driver approach' is selected in the User Settings mode on the LCD display, the outside mirror will unfold automatically when you approach the vehicle (all doors closed and locked) with a smart key in possession.

### NOTICE

The electric type outside rearview mirror operates even though the ignition switch is in the OFF position. However, to prevent unnecessary battery discharge, do not adjust the mirrors longer than necessary while the engine is not running.

### NOTICE

Do not fold the electric type outside rearview mirror by hand. It could cause motor failure.

# Reverse parking aid function (if equipped)



When you press the R (Reverse) button, the outside rearview mirror(s) will rotate downwards to aid with driving in reverse.

The position of the outside rearview mirror switch (1) determines whether or not the mirrors will move:

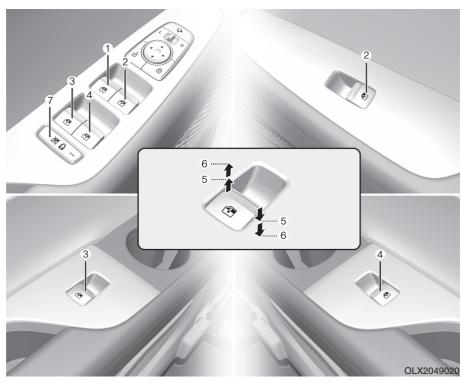
Left/Right: When either the L (Left) or R (Right) switch is selected, both outside rearview mirrors will move.

Neutral: When neither switch is selected, the outside rearview mirrors will not move The outside rearview mirrors will automatically revert to their original positions if any of the following occur:

- The Engine Start/Stop button is placed to either the OFF position or the ACC position.
- The shift button is selected to any position except R (Reverse).
- The outside rearview mirror switch is not selected.

### WINDOWS

## Power windows (if equipped)



- (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

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 passenger windows. The power windows will operate for approximately 10 minutes after the ignition switch is placed in the ACC or OFF position. However, if the front doors are opened, the Power Windows cannot be operated even within the 10 minutes period.

# **A** WARNING

To avoid serious injury or death, do not extend your head, arms or body outside the windows while driving.

# Information

- In cold and wet climates, power windows may not work properly due to freezing conditions.
- While driving with the rear windows down or with the sunroof (if equipped) opened (or partially opened), your vehicle may demonstrate a wind buffeting or pulsation noise. This noise is normal and can be reduced or eliminated by taking the following actions. If the noise occurs with one or both of the rear windows down, partially lower both front windows approximately 2.5 cm. If you experience the noise with the sunroof open, slightly close the sunroof.

## 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 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.

### To reset the power windows

If the power windows do not operate normally, the automatic power window system must be reset as follows:

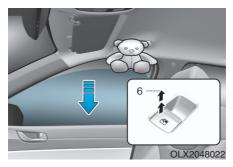
- 1. Place the ignition switch to the ON position.
- Close the window and continue pulling up on the power window switch for at least one second.

If the power windows do not operate properly after resetting, it is recommended that the system be checked by an authorized HYUNDAI dealer.

# **A** WARNING

The automatic reverse feature doesn't activate while resetting power window system. Make sure body parts or other objects are safely out of the way before closing the windows to avoid injuries or vehicle damage.

## Automatic reverse (if equipped)



If a window senses any obstacle while it is closing automatically, it will stop and lower approximately 30 cm (12 inches) 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 2.5 cm (1 inch). 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.

### **A** 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 4 mm (0.16 inch) 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.

### NOTICE

Do not install any accessories on the windows. The automatic reverse feature may not operate.

#### Power window lock switch



The driver can disable the power window switches on the rear passengers' doors by pressing the power window lock switch.

When the power window lock switch 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 switch is operated (indicator turns on), 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.

### **A** WARNING

Do not allow children to play with the power windows. Keep the driver's door power window lock switch 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.

### **▲** WARNING

- NEVER leave the keys in your vehicle with unsupervised children, when the engine is running.
- NEVER leave any child unattended in the vehicle. Even very young children may inadvertently cause the vehicle to move, entangle themselves in the windows, or otherwise injure themselves or others.
- Always double check to make sure all arms, hands, head and other obstructions are safely out of the way before closing a window.
- Do not extend your head, arms or body outside the windows while driving.

# Remote window closing function (if equipped)



You can still control the window movement with the engine turned off by pressing the Door Lock button (1) for more than 3 seconds. The window moves (up), as long as you press the door lock button. The window movement stops, when you release the door lock button. The hazard warning lights blink 3 times, when the window is completely closed.

## *i* Information

- The remote window closing function may abruptly stop, when you move away from your vehicle during the operation. Stay in close proximity of 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 keep operating. Thus, you should make sure that all windows are closed, and that the hazard warning lights blink 3 times.
- The remote window closing function is only operated by the vehicle equipped with an automatic power window on all windows.

# SUNROOF (IF EQUIPPED) 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 ignition switch is in the ON position.

The sunroof can be operated for approximately 10 minutes after the ignition switch is in the ACC or LOCK position. However, if the front door is open, the sunroof cannot be operated even within the 10 minute period.

# Dual wide 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 10 minutes after the Engine Start/Stop button is in the ACC or OFF position. However, if the front door is open, the sunroof cannot be operated even within the 10 minute period.

### **▲** WARNING

- Never adjust the sunroof or sunshade while driving. This 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 the roof bars are installed on the vehicle or when there is luggage on the roof.

# Sunshade (Front)/Power sunshade (Rear)

Use the power sunshade to block direct sunlight coming through the sunroof glass.



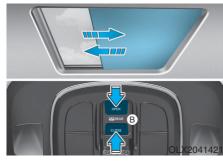
#### **Front**

Open or close the sunshade by hand.

# *i* Information



The sunshade opens automatically when the sunroof glass is opened by pushing the sunroof switch (A) rearward, but the sunshade does not close automatically when the sunroof glass is closed. Also, only the sunshade cannot be closed when the sunroof glass is opened.



#### Rear

Push the power sunshade open switch (B), the power sunshade automatically slides open.

Push the power sunshade close switch (B), the power sunshade automatically closes.

#### NOTICE

Do not pull or push the power sunshade by hand as such action may damage the power sunshade or cause it to malfunction.

# **i** Information

Wrinkles formed on the power sunshade are normal due to material characteristic.

## Tilt open/close (Front)



- Push the sunroof switch upward, the sunroof glass tilts open.
- Push the sunroof switch forward, the sunroof glass automatically closes.

To stop the sunroof movement at any point, push the sunroof switch in any direction.

### Slide open/close (Front)



- Push the sunroof switch rearward, the sunshade and sunroof glass slide open.
  - Push the sunroof switch forward, only the sunroof glass closes.
- 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 sunroof glass operates 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.

### **A** 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

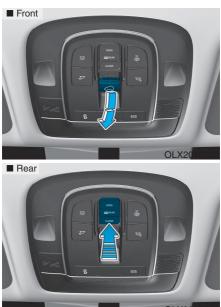
- Do not continue to push the sunroof switch after the sunroof is fully opened, closed, or tilted.
   Damage to the sunroof motor could occur.
- Continuous operations such as slide open/close, tilt open/close, etc. may cause the motor or sunroof system to malfunction.
- Regularly remove any accumulated dust on the sunroof rail.
- Using the sunroof for a long time can make noise caused by dust accumulated between the sunroof and vehicle body. 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, otherwise the motor could be damaged. In cold and wet climates, the sunroof may not work properly an 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.

### **A** 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 the 12-volt battery 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:

- It is recommended to perform the reset procedure with the vehicle engine running. Start the vehicle in P (Park).
- Make sure the power sunshade or sunroof glass is in the fully closed position. If the power sunshade or sunroof glass is open, push the switch forward until the power sunshade and sunroof glass is fully closed.
- 3. Release the switch when the power sunshade or sunroof glass is fully closed.
- Push the switch forward until the power sunshade or sunroof glass moves slightly. Then release the switch.

5. Once again push and hold the sunroof switch forward until the power sunshade or sunroof glass slides 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 is disconnected or discharged, or the sunroof fuse is blown, the sunroof may not operate normally.

## Sunroof open warning



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 LCD display.

Close the sunroof securely when leaving your vehicle.

## **A** CAUTION

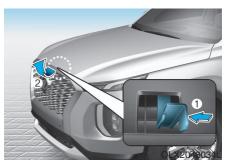
Make sure the sunroof is closed fully when leaving your vehicle. If the sunroof is left open, rain or snow may wet the interior of the vehicle. Also, leaving the sunroof open when the vehicle is unattended may invite theft.

# EXTERIOR FEATURES

### Opening the hood



- 1. Park the vehicle and set the parking brake.
- 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 the secondary latch up (1) inside of the hood center and lift the hood (2). After it has been raised about halfway, it will raise completely by itself.

## Closing the hood

- Before closing the hood, check the following:
  - All filler caps in engine compartment must be correctly installed.
- Gloves, rags or any other combustible material must be removed from the engine compartment.
- 2. Lower the hood halfway (lifted approximately 30cm from the closed position) and push down to securely lock in place. Then double check to be sure the hood is secure. If the hood can be raised slightly, it is not securely locked. Open it again and close it with more force.

### **A** 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. If the hood is not latched while the vehicle is moving, the chime will sound to warn the driver the hood is not fully latched. 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.

### **Tailgate**

### Opening the tailgate



Make sure the vehicle is in P (Park) and set the parking brake.

Then do one of the following:

- Unlock all doors with the Door Unlock button on your remote key or smart key. Press the tailgate handle button and open the tailgate.
- Press and hold the Tailgate Unlock button on the remote key or smart key. Press the tailgate handle button and open the tailgate.
- 3. With the Smart Key in your possession, press the tailgate handle button and open the tailgate.

### Closing the tailgate



Lower the tailgate lid and press down until it locks. To be sure the tailgate lid is securely fastened, always check by trying to pull it up again without pressing the tailgate handle button.

## **A** WARNING

Always keep the tailgate lid 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 tailgate lift cylinders and the attached hardware, always close the tailgate before driving.

# **i** Information

In cold and wet climates, tailgate lock and tailgate mechanisms may not work properly due to freezing conditions.

## **A** WARNING



Do not hold the part (gas lifter) that supports the tailgate. Be aware that the deformation of the part may cause vehicle damage and a risk of injury.

### **▲** WARNING

- NEVER allow anyone to occuby the luggage compartment of the vehicle at any time. If the tailgate 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 tailgate safety release



Your vehicle is equipped with the emergency tailgate safety release lever located on the bottom of the tailgate. When someone is inadvertently locked in the luggage compartment. The tailgate can be opened by doing as follows:

- 1. Push the release lever to the right by a key.
- 2. Push up the tailgate.

### **A** WARNING

- For emergencies, be fully aware of the location of the emergency tailgate safety release lever in the vehicle and how to open the tailgate 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 tailgate (if equipped)

### Power tailgate button



The power tailgate operates when:

- The power tailgate button is pressed with the engine off.
- The power tailgate button is pressed when the ignition switch is in the ON position with the shift button in P(Park) position.

To activate or de-activate the power tailgate, go to User Settings mode and select the Power Tailgate on the LCD display.

For more details, refer to "LCD Display" in this chapter.

# **A** WARNING

Never leave children or animals unattended in your vehicle.

Children or animals might operate the power tailgate that could result in injury to themselves or others, or damage the vehicle.

# **A** WARNING

Make sure there are no people or objects around the tailgate before operating the power tailgate. Wait until the tailgate is opened fully and stopped before loading or unloading cargo or passengers from the vehicle.

# **A** CAUTION

Do not close or open the power tailgate manually. This may cause damage to the power tailgate. If it is necessary to close or open the power tailgate manually when the battery is discharged or disconnected, do not apply excessive force.

## Opening the tailgate



The power tailgate will open automatically by doing one of the following:

 Press the tailgate unlock button on the remote key or smart key for approximately one second.



 Press the power tailgate button for approximately one second.

For emergency stop while operating, press the power tailgate button shortly.



 Press the tailgate handle switch carrying the smart key with you.

## Closing the tailgate



 Press the power tailgate button for approximately one second when the tailgate is opened.

The tailgate will close and lock automatically.

For emergency stop while operating, press the power tailgate button shortly.



 Press the power tailgate inner switch for approximately one second when the tailgate is opened.
 The tailgate will close and lock automatically.

# Power tailgate non-opening conditions

The tailgate does not open when the vehicle is in motion.

### **A** WARNING

The chime will sound if you drive with the tailgate opened. Stop your vehicle immediately at a safe place and check if your tailgate is opened.

# **!** CAUTION

Operating the power tailgate more than 5 times continuously could cause damages to the operating motor. In this case, the system enters into a thermal protection mode, the power tailgate can not operate and the chime will sound for 3 times by any switch inputs. Leave your power tailgate system for rest about 1 minute and then operate.

## *i* Information

- The power tailgate can be operated when the engine is not running. However the power tailgate operation consumes large amounts of vehicle electric power. To prevent the battery from being discharged, do not operate it excessively. (e.g.: more than approximately 10 times repeatedly.)
- To prevent the battery from being discharged, do not leave the power tailgate in the open position for a long time.
- Do not modify or repair any part of the power tailgate by yourself. We recommend that you contact an authorized HYUNDAI dealer.
- When jacking up the vehicle to change a tire or repair the vehicle, do not operate the power tailgate. This could cause the power tailgate to operate improperly.
- In cold and wet climates, the power tailgate may not work properly due to freezing conditions.

#### Automatic reversal



During power opening and closing if the power tailgate is blocked by an object or part of the body, the power tailgate will detect the resistance.

- If the resistance is detected while opening the tailgate, it will stop and move in the opposite direction.
- If the resistance is detected while closing the tailgate, it will stop and move in the opposite direction.

However, if the resistance is weak such as from an object that is thin or soft, or the tailgate is near the latched position, the automatic stop and reversal may not detect the resistance.

If the automatic reversal feature operates continuously more than twice during opening or closing operation, the power tailgate may stop at that position. At this time, close the tailgate manually and operate the tailgate automatically again.

### **A** WARNING

Never intentionally place any object or part of your body in the path of the power tailgate to make sure the automatic reversal operates.

## **!** CAUTION

Do not put heavy stuffs on the power tailgate before you operate the power tailgate.

Additional weight on tailgate could cause damages to the system.

### How to reset the power tailgate

If the battery has been discharged or disconnected, or if the related fuse has been replaced or disconnected, for the power tailgate to operate normally, reset the power tailgate as follow:

- 1. Press the P (Parking) button.
- While Pressing the power tailgate inner switch, press the tailgate handle switch for more than 3 seconds. (the chime will sound)
- 3. Close the tailgate manually.

If the power tailgate does not work properly after the above procedure, we recommend that the system be checked by an authorized HYUNDAI dealer.

# *i* Information

If the power tailgate does not operate normally, check again if the gear position is in right position.

### Power tailgate speed adjustment

To adjust the power tailgate speed, go to User Settings mode and select Door → Power tailgate speed → Normal / Fast on the LCD display.

- If power tailgate function turns off or tailgate is not fully closed, you can not adjust the power tailgate speed.
- Initial speed of Power tailgate is set as "Fast".

For more details, refer to "LCD Display" in this chapter.

# Power tailgate opening height user setting



The driver may set the height of a fully opened tailgate by following the below instruction.

- 1. Position the tailgate manually to the height you prefer.
- 2. Press the power tailgate inner switch for more than 3 seconds.
- 3. Close the tailgate manually after hearing the buzzer sound.

The tailgate will open to the height the driver has set up.

### **A** WARNING

Always keep the tailgate 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.

### **A** WARNING

Occupants should never ride in the rear cargo area where no restraints are available. To avoid injury in the event of an accident or sudden stops, occupants should always be properly restrained.

# Emergency tailgate safety release



Your vehicle is equipped with the emergency tailgate safety release lever located on the bottom of the tailgate. When someone is inadvertently locked in the luggage compartment, the tailgate can be opened by doing as follows:

- 1. Push the release lever to the right.
- 2. Push up the tailgate.

### **A** WARNING

- For emergencies, be fully aware of the location of the emergency tailgate safety release lever in the vehicle and how to open the tailgate 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.

### **Smart tailgate (if equipped)**



On the vehicle equipped with a smart key, the tailgate can be opened with no-touch activation using the Smart tailgate system.

### How to use the Smart Tailgate

The tailgate can be opened with notouch activation satisfying all the conditions below.

- After 15 seconds when all doors are closed and locked
- Positioned in the detecting area for more than 3 seconds.

# Information

- The Smart Tailgate does not operate when:
  - The smart key is detected within 15 seconds after the doors are closed and locked, and is continuously detected.
  - The smart key is detected within 15 seconds after the doors are closed and locked, and 1.5 m (60 in.) from the front door handles. (for vehicles equipped with Welcome Light)
  - A door is not locked or closed.
  - The smart key is in the vehicle.

### 1. Setting

To activate the Smart Tailgate, go to User Settings Mode and select Smart Tailgate on the LCD display.

\* For more details, refer to "LCD Display" in this chapter.

#### 2. Detect and Alert

If you are positioned in the detecting area (50 ~100 cm (20 ~ 40 in.) behind the vehicle) carrying a smart key, the hazard warning lights will blink and chime will sound to alert you the smart key has been detected and the tailgate will open.

# **i** Information

Do not approach the detecting area if you do not want the tailgate to open. If you have unintentionally entered the detecting area and the hazard warning lights and chime starts to operate, leave the detecting area with the smart key. The tailgate will stay closed.

### 3. Automatic opening

The hazard warning lights will blink and chime will sound 6 times and then the tailgate will slowly open.

### **▲** WARNING

- Make certain that you close the tailgate before driving your vehicle.
- Make sure there are no people or objects around the tailgate before opening or closing the tailgate.
- Make sure objects in the rear cargo area do not come out when opening the tailgate on the slope way. It may cause serious injury.
- Make sure to deactivate the Smart tailgate function when washing your vehicle.
  - Otherwise, the tailgate may open inadvertently.
- The key should be kept out of reach of children. Children may inadvertently open the Smart Tailgate while playing around the rear area of the vehicle.

### How to deactivate the Smart Tailgate function using the smart key



- 1. Door lock
- 2. Door unlock
- 3. Tailgate open

If you press any button of the smart key during the Detect and Alert stage, the Smart Tailgate function will be deactivated.

Make sure to be aware of how to deactivate the Smart Tailgate function for emergency situations.

## Information

- If you press the door unlock button (2), the Smart Tailgate function will be deactivated temporarily. But, if you do not open any door for 30 seconds, the Smart Tailgate function will be activated again.
- If you press the tailgate open button (3) for more than 1 second, the tailgate opens.
- If you press the door lock button (1) or tailgate open button (3) when the Smart Tailgate function is not in the Detect and Alert stage, the Smart Tailgate function will not be deactivated.
- In case you have deactivated the Smart Tailgate function by pressing the smart key button and opened a door, the Smart Tailgate function can be activated again by closing and locking all doors.

### Detecting area



- The Smart Tailgate operates with a welcome alert if the smart key is detected within 50 ~ 100 cm (20 ~ 40 in.) from the tailgate.
- The alert stops at once if the smart key is positioned outside the detecting area during the Detect and Alert stage.

### **i** Information

- The Smart Tailgate function will not work if any of the following occurs:
  - 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 cellular phone.
  - Another vehicle's smart key is being operated close to your vehicle.
- The detecting range may decrease or increase when:
  - One side of the tire is raised to replace a tire or to inspect the vehicle.
  - The vehicle is slantingly parked on a slope or unpaved road, etc.

### **Fuel filler door**

### Opening the fuel filler door



1. To open the fuel filler door, press the center edge of the fuel filler door.

### **i** Information

The fuel filler door will open and close only when all doors are unlocked.



- 2. Pull the fuel filler door (1) out to fully open.
- 3. To remove the fuel tank cap (2), turn it counterclockwise. You may hear a hissing noise as the pressure inside the tank equalizes.
- 4. Place the cap on the fuel filler door.

### 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.

### **i** Information

The fuel filler door will not close if the driver's door is locked. If you lock the driver's door while fueling, unlock it before closing the fuel filler door.

### **A** WARNING

Gasoline 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 Gasoline 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 cellular 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 gasoline source, with your bare hand.

- When refueling, always press the shift button with P (Park) position, set the parking brake, and place the ignition switch to the LOCK/OFF position. Sparks produced by electrical components related to the engine can ignite fuel vapors causing a fire.
- 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 gasoline.

- 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 gasoline 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.

### **i** Information

Make sure to refuel your vehicle according to the "Fuel Requirements" suggested in the Introduction chapter.

#### 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.

### **INSTRUMENT CLUSTER**



■ Type B



- 1. Tachometer
- 2. Speedometer
- 3. Engine coolant temperature gauge
- 4. Fuel gauge
- 5. Warning and indicator lights
- 6. LCD display (including Trip computer)

The actual cluster in the vehicle may differ from the illustration. For more details, refer to the "Gauges and Meters" in this chapter.

OLX2048100L/OLX2048101L

#### Instrument cluster control

### Instrument panel illumination



When the vehicle's position lights or headlamps are on, press the illumination control button to adjust the brightness of the instrument panel illumination.

When pressing the illumination control button, the interior switch illumination intensity is also adjusted.

### **A** WARNING

Never adjust the instrument cluster while driving. This could result in loss of control and lead to an accident that may cause death, serious injury, or vehicle damage.

- The brightness of the instrument panel illumination is displayed.
- If the brightness reaches the maximum or minimum level, an alarm will sound.

### Gauges and meters

### Speedometer





The speedometer indicates the speed of the vehicle and is calibrated in kilometers per hour (km/h) and/or miles per hour (MPH).

#### **Tachometer**





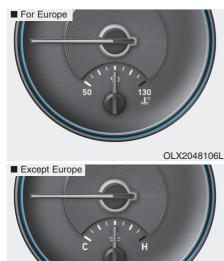
The tachometer indicates the approximate number of engine revolutions per minute (rpm).

Use the tachometer to select the correct shift points and to prevent lugging and/or over-revving the engine.

### NOTICE

Do not operate the engine within the tachometer's RED ZONE. This may cause severe engine damage.

# Engine coolant temperature gauge



This gauge indicates the temperature of the engine coolant when the ignition switch is in the ON position.

OLX2048106

#### NOTICE

If the gauge pointer moves beyond the normal range area toward the "130 or H" position, it indicates overheating that may damage the engine.

Do not continue driving with an overheated engine. If your vehicle overheats, refer to "If the Engine Overheats" in chapter 6.

### **A** WARNING

Never remove the radiator cap when the engine is hot. The engine coolant is under pressure and could cause severe burns. Wait until the engine is cool before adding coolant to the reservoir.

### Fuel gauge





This gauge indicates the approximate amount of fuel remaining in the fuel tank.

### *i* Information

- The fuel tank capacity is given in chapter 8.
- 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.

### **A** 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 "0 or 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.

### Outside temperature gauge



This gauge indicates the current outside air temperatures either in Celsius (°C) or Fahrenheit.

- Temperature range : -40°C ~ 60°C (-40°F ~ 140°F)

The outside temperature on the display may not immediately change like a general thermometer not to distract the driver.

The temperature unit (from °C to °F or from °F to °C) can be changed by:

- User Settings mode in the Cluster : You can change the temperature unit in the "Other Features -Temperature unit".  Automatic climate control system: While pressing the OFF button, press the AUTO button for 3 seconds or more.

The temperature unit of the instrument cluster and climate control system will change at once.

#### Odometer



The odometer indicates the total distance that the vehicle has been driven and should be used to determine when periodic maintenance should be performed.

### Distance to empty



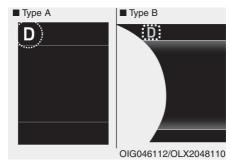
- The distance to empty is the estimated distance the vehicle can be driven with the remaining fuel.
- If the estimated distance is below 1 km (1 mi.), the trip computer will display "---" as distance to empty.

### 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 trip computer may not register additional fuel if less than 6 liters (1.6 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.

### **Transmission shift indicator**

### Automatic transmission shift indicator



This indicator displays which shift button position is selected.

Park : PReverse : RNeutral : NDrive : D



Shift Indicator Pop-up (if equipped) The pop-up that indicates the current gear position is displayed in the cluster for about 2 seconds when shifting into other positions (P/R/N/D).

### Warning and indicator lights



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.

### Air Bag Warning Light



This warning light illuminates:

- When you turn the ignition switch or the Engine Start/Stop button to the ON position.
  - It illuminates for approximately 6 seconds and then goes off.
- When there is a malfunction with the SRS.

In this case, we recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.

### Seat Belt Warning Light



This warning light informs the driver that the seat belt is not fastened.

For more details, refer to "Seat Belts" in chapter 2.

### Parking Brake & Brake Fluid Warning Light



This warning light illuminates:

- When you set the ignition switch or the Engine Start/Stop button to the ON position.
  - It illuminates for approximately 3 seconds
  - It remains on if the parking brake is applied.
- When the parking brake is applied.
- When 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.

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" in chapter 7). 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. We recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.

### **Dual-diagonal braking system**

Your vehicle is equipped with dualdiagonal braking systems. 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 are 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 the brakes fail while you are driving, shift to a lower gear for additional engine braking and stop the vehicle as soon as it is safe to do so.

### **A** WARNING

### Parking Brake & Brake Fluid Warning Light

Driving the vehicle with a warning light ON is dangerous. If the Parking Brake & Brake Fluid Warning Light illuminates with the parking brake released, it indicates that the brake fluid level is low.

In this case, we recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.

### 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.
  - It illuminates for approximately 3 seconds and then goes off.
- When there is a malfunction with the ABS (The normal braking system will still be operational without the assistance of the anti-lock brake system).

In this case, we recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.

### Electronic Brake Force Distribution (EBD) System Warning Light





These two warning lights illuminate at the same time while driving:

 When the ABS and regular brake system may not work normally.
 In this case, we recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.

### WARNING

Electronic Brake Force Distribution (EBD) System Warning Light

When both ABS and Parking Brake & Brake Fluid Warning Lights are on, the brake system will not work normally and you may experience an unexpected and dangerous situation during sudden braking.

In this case, avoid high speed driving and abrupt braking.

We recommend you have the vehicle inspected by an authorized HYUNDAI dealer as soon as possible.

i Information - Electronic Brake Force Distribution (EBD) System Warning Light

When the ABS Warning Light is on or both ABS and Parking Brake & Brake Fluid 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.

In this case, we recommend you have the vehicle inspected by an authorized HYUNDAI dealer as soon as possible.

### Electronic Parking Brake (EPB) Warning Light

**EPB** 

# AUTO HOLD Indicator Light (if equipped)

AUTO HOLD

This warning light illuminates:

- When you set the ignition switch or the Engine Start/Stop button to the ON position.
  - It illuminates for approximately 3 seconds and then goes off.
- When there is a malfunction with the EPB.

In this case, we recommend that you 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).

This indicator light illuminates:

- [White] When you activate the auto hold system by pressing the AUTO HOLD button.
- [Green] When you stop the vehicle completely by depressing the brake pedal with the auto hold system activated.
- [Yellow] When there is a malfunction with the auto hold system.
   In this case, we recommend that

you have the vehicle inspected by an authorized HYUNDAI dealer.

For more details, refer to "Auto Hold" in chapter 5.

### Electric Power Steering (EPS) Warning Light



### This warning light illuminates:

- When the ignition is moved to ON, the warning light illuminates for about 3 seconds and turns off automatically if no problem.
- When the warning light illuminates while driving, it indicates that there is a problem with the electric power steering system. In this case, we recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.

### Malfunction Indicator Lamp (MIL)



#### This warning light illuminates:

- When you set the ignition switch or the Engine Start/Stop button to the ON position.
  - It illuminates for approximately 3 seconds and then goes off.

• When there is a malfunction with the emission control system.

In this case, we recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.

### 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.

### **!** CAUTION

#### Gasoline Engine

If the Malfunction Indicator Lamp (MIL) illuminates, potential catalytic converter damage is possible which could result in loss of engine power.

In this case, we recommend that you have the vehicle inspected by an authorized HYUNDAI dealer as soon as possible.

### **A** CAUTION

### Diesel Engine with DPF (if equipped)

When the Malfunction Indicator Lamp (MIL) blinks, it may stop blinking after driving the vehicle:

- at more than 60km/h (40 mph), or
- at more than 2nd gear with 1500 ~ 2000 engine rpm for a certain time (for about 25 minutes).

If the Malfunction Indicator Lamp (MIL) continues to blink in spite of the procedure, we recommend that you have the DPF system checked by an authorized HYUNDAI dealer.

If you continue to drive with the Malfunction Indicator Lamp (MIL) blinking for a long time, the DPF system can be damaged and fuel consumption can worsen.

### **A** CAUTION

#### **Diesel Engine**

If the Malfunction Indicator Lamp (MIL) blinks, some error related to the injection quantity adjustment occurs which could result in loss of engine power, combustion noise and poor emission.

In this case, we recommend that you have the engine control system inspected by an authorized HYUNDAI dealer.

### Charging System Warning Light



### Engine Oil Pressure Warning Light



This warning light illuminates:

 When there is a malfunction with either the alternator or electrical charging system.

If there is a malfunction with either the alternator or electrical charging system:

- 1. Drive carefully to the nearest safe location and stop your vehicle.
- 2. Turn the engine off and check the alternator drive belt for looseness or breakage.

If the belt is adjusted properly, there may be a problem in the electrical charging system.

In this case, we recommend that you have the vehicle inspected by an authorized HYUNDAI dealer as soon as possible.

### 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" in chapter 7). If the level is low, add oil as required. If the warning light remains on after adding oil or if oil is not available, we recommend that you have the vehicle inspected by an authorized HYUNDAI dealer as soon as possible.

#### NOTICE

- If the engine does not stop immediately after the Engine Oil Pressure Warning Light is illuminated, severe damage could result.
- If the warning light stays on while the engine is running, it indicates that there may be serious engine damage or malfunction. In this case:
  - 1. Stop the vehicle as soon as it is safe to do so.
  - Turn off the engine and check the oil level. If the oil level is low, fill the engine oil to the proper level.
  - Start the engine again. If the warning light stays on after the engine is started, turn the engine off immediately. In this case, we recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.

### Low Fuel Level Warning Light



### Master 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 (Empty) or 0" can cause the engine to misfire and damage the catalytic converter (if equipped).

### Overspeed Warning Light (if equipped)

120 km/h

This warning light blinks:

- When you drive the vehicle more than 120 km/h.
  - This is to prevent you from driving your vehicle with overspeed.
  - The overspeed warning chime also sound for approximately 5 seconds.

This indicator light illuminates:

- When there is a malfunction in the below systems.
  - Low washer fluid (if equipped)
  - Exterior lamp malfunction (if equipped)
  - Blind-Spot Collision Warning (BCW) malfunction (if equipped)
  - Tire Pressure Monitoring System (TPMS, if equipped)

To identify the details of the warning, look at the LCD display.

### Low Tire Pressure Warning Light (if equipped)



This warning light illuminates:

- When 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 one or more of your tires are significantly underinflated (The location of the underinflated tires are displayed on the LCD display).

For more details, refer to "Tire Pressure Monitoring System (TPMS)" in chapter 6.

This warning light remains on after blinking for approximately 60 seconds or repeatedly blinks on and off at approximately 3 second intervals:

 When there is a malfunction with the TPMS.

In this case, we recommend that you have the vehicle inspected by an authorized HYUNDAI dealer as soon as possible.

For more details, refer to "Tire Pressure Monitoring System (TPMS)" in chapter 6.

### **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.

### Fuel Filter Warning Light (for diesel engine)



This warning light illuminates:

When water has accumulated inside the fuel filter.

In this case, remove the water from the fuel filter.

For more details, refer to "Fuel Filter" in chapter 7.

### NOTICE

- When the Fuel Filter Warning Light illuminates, engine power (vehicle speed & idle speed) may decrease.
- If you keep driving with the warning light on, engine parts (injector, common rail, high pressure fuel pump) may be damaged. If this occurs, we recommend that you have the vehicle inspected by an authorized HYUNDAI dealer as soon as possible.

Exhaust System (DPF) Warning Light (for diesel engine, if equipped)



This warning light illuminates:

 When there is a malfunction with the Diesel Particulate Filter (DPF) system.

When this warning light illuminates, it may turn off after driving the vehicle:

 at more than 60 km/h (40 mph), for about 30 minutes (above 2nd gear with 1500 ~ 2500 engine rpm).

If this warning light blinks in spite of the procedure (at this time LCD warning message will be displayed), we recommend that you have the DPF system checked by an authorized HYUNDAI dealer.

#### NOTICE

If you continue to drive with the DPF warning light blinking for a long time, the DPF system can be damaged and fuel consumption can worsen.

### Glow Indicator Light (for diesel engine)



This indicator light illuminates:

- When the engine is being preheated with the ignition switch or Engine Start/Stop button in the ON position.
  - The engine can be started after the glow indicator light goes off.
  - The illumination time varies depending on the with the engine coolant temperature, air temperature, and battery condition.

If the indicator light remains on or blinks after the engine has warmed up or while driving, there may be a malfunction with the engine preheating system.

In this case, we recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.

### **i** Information

If the engine does not start within 10 seconds after the preheating is completed, set the ignition switch or Engine Start/Stop Button to the LOCK or OFF position for 10 seconds and then to the ON position in order to preheat the engine again.

4 Wheel Drive (4WD) Warning Light (if equipped)



Electronic Stability Control (ESC) Indicator Light (if equipped)



Electronic Stability Control (ESC) OFF Indicator Light (if equipped)



This warning 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 there is a malfunction with the 4WD system.

In this case, we recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.

This indicator light illuminates:

- When you set the ignition switch or the Engine Start/Stop button to the ON position.
  - It illuminates for approximately 3 seconds and then goes off.
- When there is a malfunction with the ESC system.

In this case, we recommend that you 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)" in chapter 5.

This indicator light illuminates:

- When you set the ignition switch or the Engine Start/Stop button to the ON position.
  - It 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)" in chapter 5.

### Immobilizer Indicator Light (without smart key) (if equipped)



#### 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, we recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.

### Immobilizer Indicator Light (with smart key) (if equipped)



### 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.
  - At this time, 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.
  - At this time, 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.

In this case, 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.

In this case, we recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.

### Turn Signal Indicator Light



# Low Beam Indicator Light (if equipped)



### High Beam Assist (HBA) indicator light (if equipped)



This indicator light blinks:

When you operate the turn signals.

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, we recommend that you have your vehicle inspected by an authorized HYUNDAI dealer.

This indicator light illuminates:

• When the headlamps are on.

### High Beam Indicator Light



This indicator light illuminates:

- When the headlamps are on and in the high beam position.
- When the turn signal lever is pulled into the Flash-to-Pass position.

This warning light illuminates:

- When the high-beam is on with the light switch in the AUTO light position.
- If your vehicle detects oncoming or preceding vehicles, the High Beam Assist (HBA) system will switch the high beam to low beam automatically.

For more details, refer to "High Beam Assist (HBA)" in this chapter.

# Light ON Indicator Light



### LED Headlamp Warning Light (if equipped)



### Cruise Indicator Light (if equipped)



This indicator light illuminates:

 When the tail lights or headlamps are on.

### Rear Fog Indicator Light (if equipped)



This indicator light illuminates:

When the rear fog lights are on.

This warning light illuminates:

- When you turn the ignition switch or the Engine Start/Stop button to the ON position.
- When there is a malfunction with the LED headlamp.

In this case, we recommend that you have the vehicle inspected by an an authorized HYUNDAI dealer.

### This warning light blinks:

When there is a malfunction with a LED headlamp related part.

In this case, we recommend that you have the vehicle inspected by an an authorized HYUNDAI dealer.

### NOTICE

Continuous driving with the LED Headlamp Warning Light on or blinking can reduce LED headlamp life.

This indicator light illuminates:

 When the cruise control system is enabled.

For more details, refer to "Cruise Control System" in chapter 5.

# Downhill Brake Control (DBC) Indicator Light (if equipped)



### SPORT Mode Indicator Light



### SMART Mode Indicator Light



This warning 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 activate the DBC system by pressing the DBC button.

### This warning light blinks:

• When the DBC is operating.

This warning light illuminates yellow:

• When there is a malfunction with the DBC system.

In this case, we recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.

For more details, refer to "Downhill Brake Control (DBC) System" in chapter 5.

### This indicator light illuminates

 When you select "SPORT" mode as drive mode.

For more details, refer to "Drive Mode Integrated Control System" in chapter 5.

### ECO Mode Indicator Light



This indicator light illuminates

 When you select "ECO" mode as drive mode.

For more details, refer to "Drive Mode Integrated Control System" in chapter 5.

This indicator light illuminates:

 When you select "SMART" mode as drive mode.

For more details, refer to "Drive Mode Integrated Control System" in chapter 5.

### Forward Collision-Avoidance Assist (FCA) system warning light (if equipped)



This indicator light illuminates:

- When 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 there is a malfunction with the FCA.

In this case, we recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.

For more information, refer to "Forward Collision-Avoidance Assist (FCA) system" in chapter 5.

# Lane Keeping Assist (LKA) system indicator light (if equipped)



# Icy Road Warning Light (if equipped)



This indicator light illuminates:

- [Green] When the system operating conditions are satisfied.
- [White] The system operating conditions are not satisfied.
- [Yellow] When there is a malfunction with the lane keeping assist system.

In this case, we recommend that you have your vehicle inspected by an authorized HYUNDAI dealer.

For more details, refer to "Lane Keeping Assist (LKA) system" in chapter 5.

This warning light is to warn the driver the road may be icy.

When the temperature on the outside temperature gauge is approximately below 4°C (40°F), the Icy Road Warning Light and Outside Temperature Gauge blinks and then illuminates. Also, the warning chime sounds 1 time.

### *i* 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.

### LCD display messages

## Low Key Battery (for smart key system)

This warning message is displayed if the battery of the smart key is discharged while changing the Engine Start/Stop button to the OFF position.

### Press START button while turning wheel (for smart key system)

This warning 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.

### Steering wheel not locked (for smart key system)

This warning message is displayed if the steering wheel is not locked while the Engine Start/Stop button changes to the OFF position.

### Check Steering Wheel Lock System (for smart key system)

This warning message is displayed if the steering wheel does not lock normally while the Engine Start/Stop button changes to the OFF position.

### Press brake pedal to start engine (for smart key system and automatic transmission)

This warning 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.

# Key not in vehicle (for smart key system)

This warning message is displayed if the smart key is not in the vehicle when you open or close door in the ACC position or ON position. The warning sound is heard when you close door without a smart key in vehicle.

When attempting to start the vehicle always have the smart key with you.

## Key not detected (for smart key system)

This warning message is displayed if the smart key is not detected when you press the Engine Start/Stop button.

## Press START button with key (for smart key system)

This warning 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.

### Press START button again (for smart key system)

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, we recommend that you have your vehicle inspected by an authorized HYUNDAI dealer.

# Check BRAKE SWITCH fuse (for smart key system and automatic transmission)

This warning message is displayed if the brake switch fuse is disconnected. You need to replace the fuse with a new one. 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 or N to start engine (for smart key system and automatic transmission)

This warning message is displayed if you try to start the engine with the shift button not in the P (Park) or N (Neutral) position.

### Information

You can start the engine with the shift button in the N (Neutral) position. But, for your safety, we recommend that you start the engine with the shift button in the P (Park) position.

### Door, Hood, Tailgate open



This warning is displayed indicating which door, or hood, or tailgate is open.

### **A** CAUTION

Before driving the vehicle, you should confirm that the door/ hood/tailgate is fully closed. Also, check there is no door/ hood/tailgate open warning light or message displayed on the instrument cluster.

### Sunroof open (if equipped)



This warning is displayed if you turn off the engine when the sunroof is open.

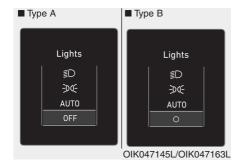
Close the sunroof securely when leaving your vehicle.

### Window open (if equipped)



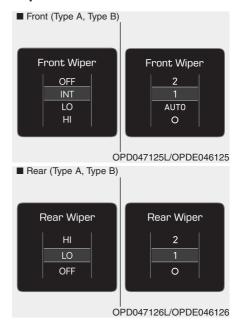
This warning is displayed if you turn off the engine when any window is open.

### Lights mode



This indicator displays which exterior light is selected using the lighting control.

### Wiper mode



This indicator displays which wiper speed is selected using the wiper control.

### Low Pressure (if equipped)



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)" in chapter 6.

### Heated Steering Wheel turned off (if equipped)

This message is displayed if you turn off the heated steering wheel.

For more details, refer to "Heated Steering Wheel" in this chapter.

### Low washer fluid (if equipped)

This warning message is displayed if the washer fluid level in the reservoir is nearly empty.

Have the washer fluid reservoir refilled.

#### Low fuel

This warning 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.

### Low engine oil (if equipped)

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. (Oil refill capacity: approximately 0.6 ~ 1.0 l)
Use only the specified engine oil. (Refer to "Recommended lubricants and capacities" in chapter 8.)

Do not overfill the engine oil. Make sure the oil level is not above F (Full) mark on the dipstick.

### Information

If you travel approximately 50 km ~100 km after the engine warms up, after adding the engine oil, the warning message will be disappeared.

#### NOTICE

If the message is displayed continuously after adding the engine oil and travelling approximately 50~100 km after the engine warms up, we recommend that the system be checked by an authorized HYUNDAI dealer.

Even if this message is not displayed after the engine has started, the engine oil level should be periodically checked and topped up if required.

### Engine has overheated (if equipped)

This warning message is displayed when the engine coolant temperature is above 120°C (248°F). This means that the engine is overheated and may be damaged.

If your vehicle is overheated, refer to "Overheating" in chapter 6.

### Check headlight (if equipped)

This warning message is displayed if the headlamps are not operating properly.

In addition, if a specific lamp(turn signal lamp etc.) is not operating properly, the warning message according to a specific lamp (turn signal lamp etc.) is displayed. A corresponding bulb may need to be replaced.

### Information

Make sure to replace the burned out bulb with a new one of the same wattage rating.

### Check High Beam Assist (HBA) system (if equipped)

This warning message is displayed if there is a problem with the High Beam Assist (HBA) System. We recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.

For more information, refer to "High Beam Assist (HBA) System" in chapter 3.

### Check FCA system (if equipped)

This warning message is displayed if there is a malfunction with the Forward Collision-Avoidance Assist (FCA) system. We recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.

For more details, refer to "Forward Collision-Avoidance Assist (FCA) system" in chapter 5.

### Check Driver Attention Warning (DAW) system (if equipped)

This warning message is displayed if there is a problem with the Driver Attention Warning (DAW) system. We recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.

For more information, refer to "Driver Attention Warning (DAW) system" in chapter 5.

### Check Forward Collision Warning system (if equipped)

This warning message is displayed if there is a problem with the Forward Collision Warning (FCW) system. We recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.

For more details, refer to "Forward Collision-Avoidance Assist (FCA) system" in chapter 5.

## Check Lane Keeping Assist (LKA) system (if equipped)

This warning message is displayed if there is a problem with the Lane Keeping Assist (LKA) system. We recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.

For more information, refer to "Lane Keeping Assist (LKA) system" in chapter 5.

### Check exhaust system (if equipped)

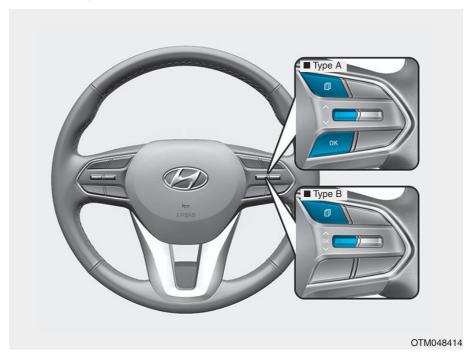
This warning message illuminates if the DPF system has a malfunction. at this time, DPF warning light also blinks.

In this case, we recommend that you have the DPF system checked by an authorized HYUNDAI dealer.

DPF: Diesel Particulate Filter

For more details, refer to "Warning lights" in this chapter.

# LCD DISPLAY LCD display control



The LCD display modes can be changed by using the control buttons.

- (1) 回: MODE button for changing modes
- (2) ∧ , ∨ : MOVE switch for changing items
- (3) OK: SELECT/RESET button for setting or resetting the selected item

### **LCD** display 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)	<b>L</b>	This mode displays the state of the navigation.
Assist		This mode displays the state of : - Lane Keeping Assist (LKA) system - Driver Attention Warning (DAW) system - Tire pressure  For more information, refer to "Lane Keeping Assist (LKA) system", "Driver Attention Warning (DAW) system" in chapter 5 and "Tire Pressure Monitoring System (TPMS)" in chapter 6.
User Settings	<b>\$</b>	In this mode, you can change settings of the doors, lamps, etc.
Warning	$\triangle$	This mode displays warning messages related to the Cruise system, etc.

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

### Shift to P to edit settings

This warning message illuminates if you try to select an item from the User Settings mode while driving.

For your safety, change the User Settings after parking the vehicle, applying the parking brake and pressing the P (Park) button.

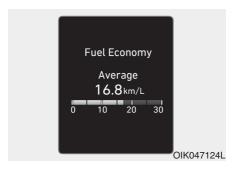
### Quick guide (Help, if equipped)

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.

### Trip computer mode



The trip computer mode displays information related to vehicle driving parameters including fuel economy, tripmeter information and vehicle speed.

For more information, refer to "Trip Computer" in this chapter.

### Turn By Turn (TBT) mode



This mode displays the state of the navigation.

#### Assist mode



#### SCC/LKA/DAW

This mode displays the state of the Smart Cruise Control (SCC), Lane Keeping Assist (LKA) and Driver Attention Warning (DAW).

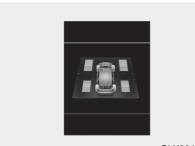
For more information, refer to each system information in chapter 5.



#### **Tire Pressure**

This mode displays information related to Tire Pressure.

For more information, refer to "Tire Pressure Monitoring System (TPMS)" in chapter 6.



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Driving force distribution (4WD)
This mode displays information related to 4WD driving force.

For detailed information, refer to the "Four Wheel Drive" in the chapter 5.

### Warning message mode

If one of followings occurs, warning messages will be displayed on the LCD display for several seconds.

- Low washer fluid (if equipped)
- Exterior lamp malfunction (if equipped)
- Blind-Spot Collision Warning (BCW) system malfunction (if equipped)
- Tire Pressure Monitoring System (TPMS, if equipped)
- High Beam Assist (HBA) malfunction (if equipped)
- Forward Collision-Avoidance Assist (FCA) malfunction (if equipped)

### User settings mode

In this mode, you can change the settings of the instrument cluster, doors, lamps, etc.

- 1. Head-up display (if equipped)
- 2. Driver Assistance
- 3. Door
- 4. Lights
- 5. Sound
- 6. Convenience
- 7. Service interval
- 8. Other Features
- 9. Languages
- 10. Reset

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

### 1. Head-Up Display

Items	Explanation
Enable Head-up display	If this item is checked, Head-Up Display will be activated.
Display Height	To adjust the height of the image displayed.
Rotation	To adjust the angle of the image displayed.
Brightness	To adjust the brightness of the image displayed.
Content Selection	To select the content to be displayed.
Speed Size	Large/Medium/Small To select the speedometer size displayed.
Speed Color	White/Orange/Green     To select the speedometer color displayed.

### 2. Driver Assistance

Items	Explanation
SCC response	• Fast/Normal/Slow To adjust the sensitivity of the Smart Cruise Control system. For more details, refer to "Smart Cruise Control with Stop & Go" in chapter 5.
Driving assist	Leading vehicle departure alert     To activate or deactivate the Leading vehicle departure alert.     For more details, refer to the "Leading vehicle departure alert" in chapter 5.      Lane Following Assist     To activate or deactivate the Lane Following Assist (LFA) system.  For more details, refer to the "Lane Following Assist (LFA) System" in chapter 5.
Warning timing	To adjust the warning timing of the driver assistance system Normal / Later
Warning volume	To adjust the warning volume of the driver assistance system High / Medium / Low
DAW (Driver Attention Warning)	To activate or deactivate the Driver Attention Warning (DAW).  For more information, refer to the "Driver Attention Warning (DAW)" in chapter 5.

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#### 2. Driver Assistance

Items	Explanation
Forward safety	To adjust the Forward Collision-Avoidance Assist function Active assist - Warning only - Off
	For more details, refer to the "Forward Collision-Avoidance Assist system" in chapter 5.
Lane safety	To adjust the Lane Keeping Assist (LKA) function.  - Lane Keeping Assist  - Lane Departure Warning  - Off
	For more details, refer to the "Lane Keeping Assist (LKA) system" in chapter 5.
	Blind-Spot View To activate or deactivate the Blind-Spot View.
	For more details, refer to the "Blind-Spot View" in this chapter.
	SEA(Safe Exit Assistance) To activate or deactivate the Safe Exit Assistance.
Blind-spot safety	For more details, refer to the "Safe Exit Assistance" in chapter 5.
	Active assist
	Warning only
	• Off
	For more details, refer to "Blind-spot Collision-Avoidance Assist (BCA)" or "Blind-spot Collision Warning (BCW)" in chapter 5.
	Rear Cross-Traffic Safety
Parking safety	To Activate or deactivate the Rear Cross-Traffic Collision-Avoidance Assist function.
	For more details, refer to "Rear Cross-Traffic Collision-Avoidance Assist (RCCA) system" in chapter 5.

## 3. Door

Items	Explanation	
Auto Lock	<ul> <li>Disable: The auto door lock operation will be deactivated.</li> <li>Enable on Speed: All doors will be automatically locked when the vehicle speed exceeds 15km/h (9.3mph).</li> <li>Enable on Shift: All doors will be automatically locked if the automatic transmission shift button is pressed from the P (Park) position to the R (Reverse), N (Neutral), or D (Drive) position. (Only when the engine is running)</li> </ul>	
Auto Unlock	Disable: The auto door unlock operation will be canceled. 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. On Shift to P: All doors will be automatically unlocked if the automatic transmission shift button is pressed to P (Park) position. (Only when the engine is running)	
Power tailgate	If this item is checked, the power tailgate function will be activated.  For more details, refer to "Power tailgate" in this chapter.	
Power tailgate speed	To adjust the power tailgate speed Normal/Fast  For more details, refer to "Power tailgate" in this chapter.	
Smart tailgate	To activate or deactivate the smart tailgate.  For more details, refer to "Smart tailgate" in this chapter.	

# 4. Lights

Items	Explanation	
	<ul> <li>Off: The one touch turn signal function will be deactivated.</li> <li>3, 5, 7 Flashes: The turn signal indicator will blink 3, 5, or 7 times when the turn signal lever is moved slightly.</li> <li>For more details, refer to "Lighting" in this chapter.</li> </ul>	
Head Lamp Delay	To activate or deactivate the headlamp delay function.  For more details, refer to "Lighting" in this chapter.	

## 5. Sound

Items	Explanation
Welcome sound	To activate or deactivate the welcome sound.

## 6. Convenience

Items	Explanation	
Seat Slide 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 this chapter.	
Seat Height Easy Access	To activate or deactivate the Seat Height Easy Access.  For more details, refer to "Driver Position Memory System" in this chapter.	

## 6. Convenience

Items	Explanation
Rear Occupant Alert	To activate or deactivate the Rear Occupant Alert.
near Occupant Alert	For more details, refer to "Rear Occupant Alert (ROA) system" in this chapter.
Welcome mirror/light	<ul> <li>On door unlock: The outside rearview mirrors are unfolded and the welcome light turns on automatically when the doors are unlocked.</li> <li>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.</li> <li>For more details, refer to "Welcome System" in this chapter.</li> </ul>
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 this chapter.
Wiper/Lights Display	To activate or deactivate the Wiper/ Light mode. When activated, the LCD display shows the selected Wiper/Light mode whenever you changed the mode.
Auto rear wiper (reverse)	Off: The Auto Rear Wiper function will be deactivated.  ON: If you press the R (Reverse) button from the D (Drive) button, when the front wiper operates, the rear wiper will operate automatically. Then, if you press the D (Drive) button from the R (Reverse) button, the rear wiper will stop.
Gear Position Pop-up	To activate or deactivate the gear position pop-up. When activated, the gear position will be displayed on the LCD display.
Icy road warning	To activate or deactivate the icy road warning.

#### 7. Service interval

Items	Explanation
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.

## Information

To use the service interval menu, we recommend you consult an authorized HYUNDAI dealer.

If the service interval is activated and the time and distance is adjusted, messages are displayed in the following situations each time the vehicle is turned on.

- Service in
  - : Displayed to inform the driver the remaining mileage and days to service.
- Service required
  - : Displayed when the mileage and days to service has been reached or passed.

## **i** Information

If any of the following conditions occur, the mileage and number of days to service may be incorrect.

- The battery cable is disconnected.
- The fuse switch is turned off.
- The battery is discharged.

#### 8. Other features

Items	Explanation
Fuel Economy Auto Reset	Off: The average fuel economy will not reset automatically whenever refueling.  After Ignition: When the engine has been OFF for 4 hours or longer the average fuel economy will reset automatically.  After Refueling: The average fuel economy will reset automatically after adding 6 liters (1.6 gallons) of fuel or more and after driving speed exceeds 1 km/h (1 mph).
	For more information, refer to "Trip Computer" in this chapter.
Fuel Economy Unit	To select the fuel economy unit. (km/L, L/100km, MPG)
Temperature Unit	To select the temperature unit. (°C,°F)
Tire Pressure Unit	To select the tire pressure unit. (psi, kPa, bar)

## 9. Language (if equipped)

Items	Explanation	
Language	Choose the language. You can choose the language in AVN device.(if equipped)	

#### 10. Reset

Items	Explanation	
Reset	You can reset the menus in the User Settings Mode. All menus in the User Settings Mode are reset to factory settings, except language and service interval.	

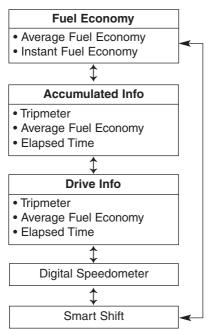
#### TRIP COMPUTER

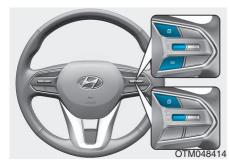
The trip computer is a microcomputer-controlled driver information system that displays information related to driving.

# Information

Some driving information stored in the trip computer (for example Average Vehicle Speed) resets if the battery is disconnected.

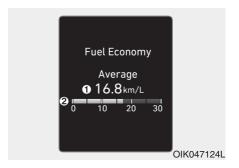
## **Trip modes**





To change the trip mode, toggle the "∧, ∨" switch on the steering wheel.

#### Fuel economy



#### **Average Fuel Economy (1)**

- The average fuel economy is calculated by the total driving distance and fuel consumption since the last average fuel economy reset.
- The average fuel economy can be reset both manually and automatically.

#### Manual reset

To clear the average fuel economy manually, press the [OK] button 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 after refueling, select the "Fuel economy Auto Reset" mode in the User Settings menu on the LCD display.

- After Ignition: The average fuel economy will reset automatically whenever it has passed 4 hours after turning OFF the engine.
- After Refueling: The average fuel economy will reset automatically when driving speed exceeds 1 km/h, after adding 6 liters (1.6 gallons) of fuel or more.

## *i* Information

The average fuel economy may be inaccurate, when the vehicle drives shorter than 300 meters (0.19 miles) after turning ON the Engine Start/Stop button.

#### **Instant Fuel Economy (2)**

 This mode displays the instant fuel economy during the last few seconds when the vehicle speed is more than 10 km/h (6.2 mph).

### Accumulated Info display



This display shows the accumulated trip distance (1), the average fuel economy (2), and the total driving time (3).

The information is accumulated starting from the last reset.

To manually reset the information, press and hold the OK button when viewing the Accumulated driving info. The trip distance, the average fuel economy, and total driving time will reset simultaneously.

The accumulated driving information will continue to be counted while the engine is still running (for example, when the vehicle is in traffic or stopped at a stop light).

# **i** Information

The vehicle must be driven for a minimum of 300 meters (0.19 miles) since the last ignition key cycle before the average fuel economy will be recalculated.

## Drive Info display



This display shows the trip distance (1), the average fuel economy (2), and the total driving time (3).

The information is combined for each ignition cycle. However, when the engine has been OFF for 4 hours or longer the Drive Info screen will reset. To manually reset the information, press and hold the OK button when viewing the Drive Info. The trip distance, the average fuel economy, and total driving time will reset simultaneously.

The driving information will continue to be counted while the engine is still running (for example, when the vehicle is in traffic or stopped at a stop light.)

## Information

The vehicle must be driven for a minimum of 300 meters (0.19 miles) since the last ignition key cycle before the average fuel economy will be recalculated.

## Digital Speedometer



This message shows the speed of the vehicle (km/h, MPH).

## Smart Shift



This mode displays the currently selected drive mode.

For more details, refer to "Drive Mode Integrated Control System" in chapter 5.

## **HEAD UP DISPLAY (HUD) (IF EQUIPPED)**



The head up display is a transparent display which projects a shadow of some information of the instrument cluster and navigation on the display located on the windshield glass.

# Precautions while using the head up display

It may be difficult to read information on the head up display in the following situations.

- The driver is improperly positioned in the driver's seat.
- The driver wears polarised sunglasses.
- An object is located above the head up display cover.
- The vehicle is driven on a wet road.
- Any improper lighting accessory is installed inside the vehicle, or there is incoming light from outside of the vehicle.
- The driver wears glasses.
- The driver wears contact lenses.

When it is difficult to read the head up display information, adjust the head up display angle or the head up display brightness level in the User Settings Mode. For more information, refer to "LCD Display" in this chapter.

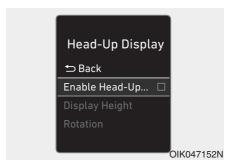
### **▲** WARNING

- Do not tint the front windshield glass or add other types of metallic coating. Otherwise, the head up display image may be invisible.
- Do not place any accessories on the crash pad or attach any objects on the windshield glass.
- The Blind-spot Collision Warning (BCW) system warnings on the head up display are mere supplemental. Do not solely depend on them to change lanes. Always take a look around before changing lanes.

## **A** CAUTION

When replacing the front windshield glass of the vehicles equipped with the head up display, replace it with a windshield glass designed for the head up display operation. Otherwise, duplicated images may be displayed on the windshield glass.

## Head-up display ON/OFF



To activate the head up display, select 'Head-UP Display' on the User Settings mode on the instrument cluster LCD display.

If you do not select 'Head-Up Display', the head up display will be deactivated.

### Head Up Display Information



- 1. Turn By Turn (TBT) navigation information (if equipped)
- 2. Road signs (if equipped)
- 3. Speedometer
- 4. Cruise setting speed (if equipped)
- Smart Cruise Control (SCC) information (if equipped)
- 6. Lane Keeping Assist (LKA) system information (if equipped)
- 7. Blind-spot Collision Warning (BCW) system information (if equipped)
- 8. Warning lights (Low fuel)
- 9. Audio/Video information

## i Information

If you select the Turn By Turn (TBT) navigation information as HUD contents, the Turn By Turn (TBT) navigation information will not be displayed on the LCD Display.

### Head Up Display Setting

On the LCD display, you can change the head up display settings as follows.

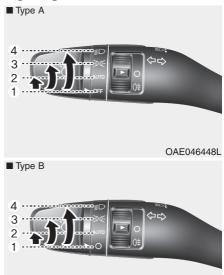
- Enable Head-up display
- Display Height
- Rotation
- Brightness
- Content Selection
- Speed Size
- Speed Color

For more details, refer to "LCD Display" in this chapter.

#### LIGHTING

## **Exterior lights**

### Lighting control

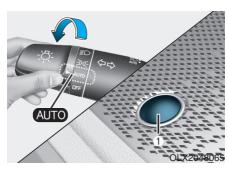


To operate the lights, turn the knob at the end of the control lever to one of the following positions:

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- (1) O (OFF) position
- (2) AUTO light position (if equipped)

- (3) Position lamp position
- (4) Headlamp position



#### **AUTO light position (if equipped)**

When the light switch is in the AUTO position, the position lamp and head-lamp will be turned ON or OFF automatically depending on the amount of light outside the vehicle.

Even with the AUTO light feature in operation, it is recommended to manually turn ON the lamps when driving at night or in a fog, or when you enter dark areas, such as tunnels and parking facilities.

#### NOTICE

- Do not cover or spill anything on the sensor (1) located on the instrument panel.
- 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 light system may not work properly.



Position lamp position ( 3005 )

The position lamp, license plate lamp and instrument panel lamp are turned ON.



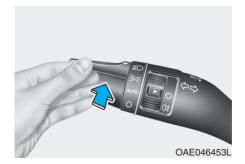
#### Headlamp position ( ( )

The headlamp, position lamp, license plate lamp and instrument panel lamp are turned ON.

# Information

The ignition switch must be in the ON position to turn on the headlamp.

## High beam operation



To turn on the high beam headlamp, push the lever away from you. The lever will return to its original position.

The high beam indicator will light when the headlamp high beams are switched on.

To turn off the high beam headlamp, pull the lever towards you. The low beams will turn on.

## **A** WARNING

Do not use high beam when there are other vehicles approaching you. Using high beam could obstruct the other driver's vision.



To flash the high beam headlamp, pull the lever towards you, then release the lever. The high beams will remain ON as long as you hold the lever towards you.

# High Beam Assist (HBA) system (if equipped)



High Beam Assist (HBA) is a system that automatically adjusts the head-lamp range (switches between high beam and low beam) according to the brightness of other vehicles and road conditions.

## **Operating condition**

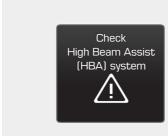
- 1. Place the light switch in the AUTO position.
- 2. Turn on the high beam by pushing the lever away from you.
- 3. The High Beam Assist (HBA) ( 記) indicator will illuminate.

- 4.The High Beam Assist (HBA) will turn on when vehicle speed is above 40km/h (25mph).
  - If the light switch is pushed away when the High Beam Assist (HBA) is operating, the High Beam Assist (HBA) will turn off and the high beam will be on continuously.
  - 2) If the light switch is pulled towards you when the high beam is off, the high beam will turn on without the High Beam Assist (HBA) canceled. When you let go of the light switch, the lever will move to the middle and the high beam will turn off.
  - 3) If the light switch is pulled towards you when the high beam is on by the High Beam Assist (HBA), the low beam will be on and the High Beam Assist (HBA) will turn off.
  - 4) If the light switch is placed to the headlamp position, the High Beam Assist (HBA) will turn off and the low beam will be on continuously.

When the High Beam Assist (HBA) is operating, the high beam switches to low beam in the following conditions.

- When the headlamp of an on-coming vehicle is detected.
- When the tail lamp of a vehicle in front is detected.
- When headlamp/tail lamp of bicycle/motorcycle is detected.
- When the surroundings are bright enough high beams are not needed.
- When streetlights or other lights are detected.
- When the light switch is not in the AUTO position.
- When the High Beam Assist (HBA) is off.
- When vehicle speed is below 35 km/h (22mph).

#### Warning light and message



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When the High Beam Assist (HBA) is not working properly, the warning message will come on for a few second. After the message disappears, the master warning light ( ) will illuminate.

We recommend that you take your vehicle to an authorized HYUNDAI dealer and have the system checked.

#### **⚠** CAUTION

The system may not operate normally in the following conditions.

- ▶ When the light from on-coming or vehicle in front is dim
- When the in light from the oncoming or vehicle in front in is not detected because of lamp damage, hidden from sight, etc.
- When the lamp of the on-coming or vehicle in front is covered with dust, snow or water.
- When the vehicle in front's headlamps are off but the fog lamps on and etc.

- ► When it is affected by an external condition
- When there is a similar shaped lamp with the vehicle front vehicle's lamps.
- When the headlamp is not repaired or replaced at an authorized dealer.
- When headlamp aiming is not properly adjusted.
- When driving on a narrow winding road or rough road.
- When driving downhill or uphill.
- When only part of the vehicle in front is visible on a crossroad or on a corner.
- When there is a traffic light, reflecting sign, flashing sign or mirror.
- When the road conditions are bad such as being wet or covered with snow.
- When the vehicle in front headlamps are off but the fog lamps on.

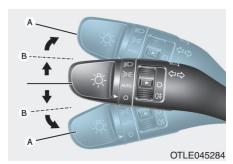
- When a vehicle suddenly appears from around a corner.
- When the vehicle is tilted from a flat tire or being towed.
- When the Lane Keeping Assist (LKA) system warning light illuminates. (if equipped)
- ► When the front visibility is poor
- When the lamp of the on-coming or vehicle in front is covered with dust, snow or water.
- When the light from the on-coming or vehicle in front is not detected because of exhaust fume, smoke, fog, snow, etc.
- When the front window is covered with foreign matter.
- When it is hard to see because of fog, heavy rain or snow etc.

### **▲** WARNING

- Do not disassemble a front view camera temporarily for tinted window or attaching any types of coatings and accessories. If you disassemble the camera and assemble it again, we recommend that you take your vehicle to an authorized HYUNDAI dealer and have the system checked to need a calibration.
- When you replace or reinstall the windshield glass, front view camera, we recommend that you take your vehicle to an authorized HYUNDAI dealer and have the system checked.
- Be careful that water doesn't get into the High Beam Assist (HBA) unit and do not remove or damage related parts of the High Beam Assist (HBA) system.

- Do not place objects on the crash pad that reflect light such as mirrors, white paper, etc. The system may malfunction if sunlight is reflected.
- At times, the High Beam Assist (HBA) may not work properly.
   The system is for your convenience only. It is the responsibility of the driver for safe driving practices and always check the road conditions for your safety.
- When the system does not operate normally, change the lamp position manually between the high beam and low beam.

# 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). To signal a lane change, move the turn signal lever slightly and hold it in position (B). The lever will return to the OFF position when released or when the turn is completed.

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 function

To activate a one-touch turn signal function, move the turn signal lever slightly and then release it. The lane change signals will blink 3, 5 or 7 times.

You can activate/deactivate the One Touch Turn Signal function or choose the number of blinks (3, 5, or 7) from the User Settings mode on the LCD display. For more details, refer to "LCD Display" in this chapter.

#### Rear fog lamp (if equipped)



To turn on the rear fog lamp:

Position the light switch in the headlamp position, and then turn the light switch (1) to the rear fog lamp position.

To turn the rear fog lamps off, do one of the following:

- Turn off the headlamp switch.
- Turn the light switch to the rear fog lamp position again.

#### 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 engine 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 the road at night. However, the position lamps stay ON even when the driver-side door is opened if the headlamp switch is turned to the position lamp OFF (O) 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 headlamp switch on the steering column after the engine is turned off.

# Headlamp delay function (if equipped)

If you place the ignition switch to the ACC or OFF position with the headlamps ON, the headlamps (and/or position lamps) remain on for about 5 minutes. However, with the engine off if the driver's door is opened and closed, the headlamps (and/or position lamps) are turned off after 15 seconds.

The headlamps (and/or position lamps) can be turned off by pressing the lock button on the remote key or smart key twice or turning the light switch to the OFF or AUTO position. However, if you turn the light switch to the AUTO position when it is dark outside, the headlamps will not be turned off.

You can activate or deactivate the Headlamp Delay function from the User Settings mode on the LCD display. For more details, refer to "LCD Display" in this chapter.

#### NOTICE

If the driver gets out of the vehicle through other doors (except driver's door), the battery saver function does not operate and the headlamp delay function does not turn off automatically. Therefore, It causes the battery to be discharged. In this case, make sure to turn off the headlamps before getting out of the vehicle.

# Daytime running light (DRL) (if equipped)

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 DRL system will turn the dedicated lamps OFF when:

- 1. The headlamps are in the ON position.
- 2. The parking brake is engaged.
- 3. The engine is turned off.

# Headlamp leveling device (if equipped)



#### Manual type

To adjust the headlamp beam level according to the number of the passengers and loading weight in the luggage area, turn the beam leveling switch.

The higher the number on the switch position, the lower the headlamp beam level. Always keep the headlamp beam at the proper leveling position, otherwise headlamps may dazzle other road users.

Listed below are examples of appropriate switch settings for varying loads. For loading conditions other than those listed, adjust the switch position to the most similar situation.

Loading condition	Switch position
Driver only	0
Driver + Front passenger	0
Full passengers (including driver)	1
Full passengers (including driver) + Maximum permissible loading	2
Driver + Maximum permissible loading	3

# Welcome system (if equipped) Welcome light (if equipped)



Puddle lamp and door handle lamp With all the doors (and tailgate) closed and locked, the puddle lamp and door handle lamp will come on for about 15 seconds if any of the below is performed.

- If 'Convenience → Welcome mirror/light → On door unlock' is selected in the User Settings mode on the LCD 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 LCD 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 LCD display.

For more details, refer to "LCD Display" in this chapter.

## Headlamp and position lamp

When the headlamp (lamp switch in the headlamp or AUTO position) is on and all doors (and tailgate) are locked and closed, the position lamp and headlamp will come on for 15 seconds when the door unlock button is pressed on the remote key or smart key.

At this time, if you press the door lock or unlock button, the position lamp and headlamp will turn off immediately.

#### Interior lamp

When the interior lamp switch is in the DOOR position and all doors (and tailgate) 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 remote key or smart key.
- When the button of the outside door handle is pressed with the smart key in possession.

At this time, if you press the door lock or unlock button, the room lamp will turn off immediately.

#### **Interior lights**

#### NOTICE

Do not use the interior lights for extended periods when the engine is turned off otherwise the battery will discharge.

#### **A** WARNING

Do not use the interior lights when driving in the dark. The interior lights may obscure your view and cause an accident.

#### Interior lamp AUTO cut

The interior lamps will automatically go off approximately 20 minutes after the engine is turned off and the doors are closed. If a door is opened, the lamp will go off 40 minutes after the engine is turned off. If the doors are locked and the vehicle enters the armed stage of the theft alarm system, the lamps will go off five seconds later.

## Front lamps



- (1) Front room lamp
- (2) Front door lamp
- (3) Front map lamp

Front room lamp ( 💢 )

Press this button to turn the front and rear room lamps on or off.

# Front door lamp ( 🐺 )

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 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 if the door is closed. However, if the ignition switch 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 ignition switch in the ACC position or the OFF position, the front and rear lamps stay on for about 20 minutes.

### Front map lamp (☞ ངུ)

Press either buttons 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



### Rear room lamp switch:

Press either buttons to turn the room lamp on or off.

## Luggage compartment lamp



## 

The luggage compartment lamp stays on at all times.

• DOOR (<<>):

The luggage compartment lamp comes on when the tailgate is opened.

• OFF ( ▽ ):

The luggage compartment lamp is off.

#### Vanity mirror lamp (if equipped)



Opening the lid of the vanity mirror will automatically turn on the mirror light.

# **A** CAUTION

To prevent unnecessary charging system drain, close the vanity mirror cover after using the mirror.

#### Glove box lamp (if equipped)



The glove box lamp comes on when the glove box is opened.

If the glove box is not closed, the lamp will turn off after 20 minutes.

#### NOTICE

To prevent unnecessary charging system drain, close the glove box securely after using the glove box.

#### Door courtesy lamp (if equipped)



The door courtesy lamp comes on when the door is opened.

If the door is not closed, the lamp will turn off after 20 minutes.

#### Puddle lamp (if equipped)



### Welcome light

When all doors (and tailgate) are closed and locked, the puddle lamp will come on for 15 seconds if the door is unlocked by the remote key or smart key or outside door handle button.

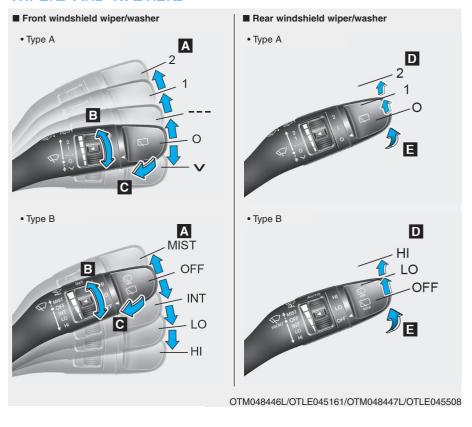
For more details, refer to "Welcome System" in this chapter.

#### **Escort light**

When the vehicle is turned OFF and the driver's door is opened, the puddle lamp will come on for 30 seconds. If the driver's door is closed within the 30 seconds, the puddle lamp will turn off after 15 seconds. If the driver's door is closed and locked, the puddle lamp will turn off immediately.

The Puddle Lamp Escort Light will turn on only the first time the driver's door is opened after the engine is turned off.

#### WIPERS AND WASHERS



- A: Wiper speed control (front)
  - · ∨ / MIST Single wipe
  - · O / OFF Off
  - · --- / INT Intermittent wipe AUTO\* – Auto control wipe
  - $\cdot$  1 / LO- Low wiper speed
  - · 2 / HI High wiper speed
- B : Intermittent control wipe time adjustment
- C: Wash with brief wipes (front)
- D : Rear wiper control\*
  - · 2 / HI High wiper speed
  - · 1 / LO Low wiper speed
  - · O / 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 (√) or up (MIST) and release it. The wipers will operate continuously if the lever is held in this position.

O/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.

1/LO: Normal wiper speed 2/HI: Fast wiper speed

## i 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 (Automatic) 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 ignition switch is in the ON position, the wiper will operate once to perform a self-check of the system.

### **▲** 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:

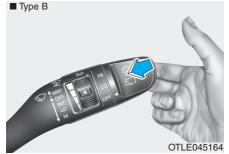
- Do not touch the upper end of the windshield glass facing the rain sensor.
- Do not wipe the upper end of the windshield glass with a damp or wet cloth.
- Do not put pressure on the windshield glass.
- Set the wiper switch to the OFF position when the wiper is not in use.

#### NOTICE

- When washing the vehicle, set the wiper switch in the O (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 parts 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.

#### Windshield washers





In the OFF (O) 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.

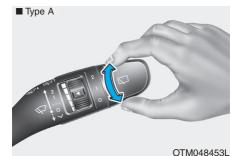
#### **A** WARNING

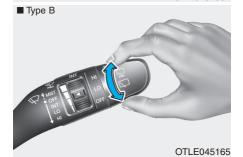
When the outside temperature is below freezing, ALWAYS warm the windshield using the defroster to prevent the washer fluid from freezing on the windshield and obscuring your vision which could result in an accident and serious injury or death.

## **A** CAUTION

- 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 switch (if equipped)

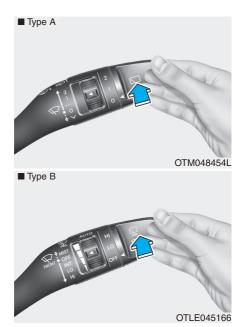




The rear window wiper and washer switch is located at the end of the wiper and washer switch lever.

Turn the switch to the desired position to operate the rear wiper and washer.

2 / HI – High wiper speed 1 / LO – Low wiper speed O / OFF – Off



Push the lever away from you to spray rear washer fluid and to run the rear wiper 1~3 cycles. The spray and wiper operation will continue until you release the lever. (if equipped)

## Auto rear wiper (if equipped)

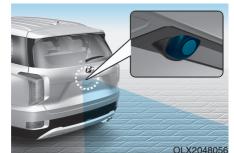
The rear wiper will operate while the vehicle is in reverse with the front wipers ON by selecting the function on the LCD display.

Go to 'User Settings  $\rightarrow$  Convenience  $\rightarrow$  Auto Rear Wiper (reverse)'.

#### **DRIVER ASSIST SYSTEM**

Rear view monitor (if equipped)

Rear View Monitor with parking guidance





The Rear View Monitor system is a supplemental system that shows the area behind the vehicle on the audio or AVN system screen to assist you when parking or driving.

 To assist in parking, the rear view is shown (the parking guide line disappears) on the screen when the shift button is shifted from R (Reverse) to D (Drive) or N (Neutral) with vehicle speed below 15 km/h (9 mph).

## **WARNING**

The Rear view monitor is not a safety device. It only serves to assist the driver in identifying objects directly behind the middle of the vehicle. The camera does NOT cover the complete area behind the vehicle.

#### **A** WARNING

- Never rely solely on the rear camera display when backingup.
- ALWAYS look around your vehicle to make sure there are no objects or obstacles before moving the vehicle in any direction to prevent a collision.

 Always pay close attention when the vehicle is driven close to objects, particularly pedestrians, and especially children.

#### NOTICE

- Do not spray the camera 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 use any cleanser containing acid or alkaline detergents when cleaning the lens.
   Use only a mild soap or neutral detergent, and rinse thoroughly with water.

# *i* Information

Always keep the camera lens clean. The camera may not work normally if the lens is covered with dirt, water or snow.

However, do not use chemical solvents such as strong detergents containing high alkaline or volatile organic solvents (gasoline, acetone etc.). This may damage the camera lens.

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#### Rear View Monitor when in Drive or Neutral





The Rear View Monitor system assists you to drive safely by allowing you to check the rear view through the screen while driving.

The system is activated when:

- The engine is ON
- The shift button is in D (Drive) or N (Neutral) and you press the button (1)

The system is deactivated when:

- You press the button (1) again
- You press the audio or AVN system button (2)

When the vehicle is reversing the screen switches to rear parking assist screen.

Warning indicator in the screen is indicated when:

- The tailgate is open
- The driver/passenger's door is open

#### Rear View Monitor – Top view



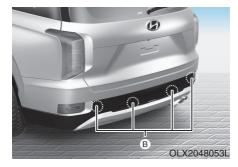
When you touch the icon (1), the top view is displayed on the screen and shows the distance from the vehicle in the back of your vehicle. Touch the icon (1) again, to switch back to the previous screen.

### **A** WARNING

- The Rear View Monitor system is a supplementary driving assist system. Make sure to check the rear view directly for safety. What you see on the screen may differ from the actual vehicle's location.
- The camera may not operate properly if any foreign substance is on the rear camera lens. Always keep the lens clean.
- When the rear view is displayed while driving, an icon
   is indicated on the upper

right side of the screen.

# Parking Distance Warning (Reverse) system (if equipped)



[B]: Sensor

The Parking Distance Warning (Reverse) system assists the driver during reverse movement of the vehicle by chiming if any object is sensed within the distance of 120 cm (50 inches) behind the vehicle.

This system is a supplemental system that senses objects within the range and location of the sensors, it cannot detect objects in other areas where sensors are not installed.

## **A** WARNING

- ALWAYS look around your vehicle to make sure there are not any objects or obstacles before moving the vehicle in any direction to prevent a collision.
- Always pay close attention when the vehicle is driven close to objects, particularly pedestrians, and especially children.
- Be aware that some objects may not be visible on the screen or be detected by the sensors, due to the objects distance, size or material, all of which can limit the effectiveness of the sensor.

#### Operation of the Parking Distance Warning (Reverse) system

#### **Operating condition**

- This system will activate when backing up with the ignition switch in the ON position. However, if vehicle speed exceeds 5 km/h (3 mph), the system may not detect objects.
- If vehicle speed exceeds 10 km/h (6 mph), the system will not warn you even though objects are detected.
- When more than two objects are sensed at the same time, the closest one will be recognized first.

## Types of warning sound and indicator

Types of warning sound	Indicator
When an object is 120 cm to 60 cm (47 in. to 24 in.) from the rear bumper : Buzzer beeps intermittently.	
When an object is 60 cm to 30 cm (24 in. to 12 in.) from the rear bumper : Buzzer beeps more frequently.	
When an object is within 30 cm (12 in.) of the rear bumper : Buzzer beeps continuously.	

#### NOTICE

- The indicator may differ from the illustration depending on objects or sensors status. If the indicator blinks, we recommend that you have your vehicle checked by an authorized HYUNDAI dealer.
- If the audible warning does not sound or if the buzzer sounds intermittently when shifting into R (Reverse) position, this may indicate a malfunction with Parking Distance Warning (Reverse) system. If this occurs, we recommend that you have your vehicle checked by an authorized HYUNDAI dealer as soon as possible.

#### To turn off the Parking Distance Warning (Reverse) system (if equipped)



Push the button to turn off the Parking Distance Warning (Reverse) system. The indicator light on the button will turn on.

#### Non-operational conditions of Parking Distance Warning (Reverse) system

The Parking Distance Warning (Reverse) system may not operate normally when:

- · Moisture is frozen to the sensor.
- Sensor is covered with foreign matter, such as snow or water, or the sensor cover is blocked.

There is a possibility of the Parking Distance Warning (Reverse) system malfunction when:

- Driving on uneven road surfaces such as unpaved roads, gravel, bumps, or gradient.
- Objects generating excessive noise such as vehicle horns, loud motorcycle engines, or truck air brakes can interfere with the sensor.
- · Heavy rain or water spray is present.
- Wireless transmitters or mobile phones are present near the sensor.
- The sensor is covered with snow.

Any non-factory equipment or accessories have been installed, or if the vehicle bumper height or sensor installation has been modified.

**Detecting range may decrease when:** 

- Outside air temperature is extremely hot or cold.
- Undetectable objects smaller than 1 m (40 inches) and narrower than 14 cm (6 inches) in diameter.

The following objects may not be recognized by the sensor:

- 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.

## **A WARNING**

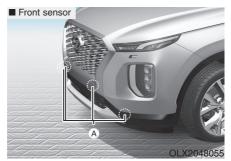
Your new vehicle warranty does not cover any accidents or damage to the vehicle or injuries to its occupants related to a Parking Distance Warning (Reverse) system. Always drive safely and cautiously.

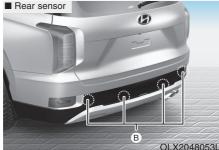
# Parking Distance Warning (Reverse) system precautions

- The Parking Distance Warning (Reverse) system may not sound consistently depending on the speed and shapes of the objects detected.
- The Parking Distance Warning (Reverse) system may malfunction if the vehicle bumper height or sensor installation has been modified or damaged. Any non-factory installed equipment or accessories may also interfere with the sensor performance.
- The sensor may not recognize objects less than 30 cm (11 in.) from the sensor, or it may sense an incorrect distance. Use caution.
- When the sensor is frozen or stained with snow, dirt, or water, the sensor may be inoperative until the stains are removed using a soft cloth.
- Do not push, scratch or strike the sensor with any hard objects that could damage the surface of the sensor. Sensor damage could occur.

 Do not spray the 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.

# Parking Distance Warning (Reverse/Forward) system (if equipped)





[A]: Front sensor, [B]: Rear sensor

The Parking Distance Warning (Reverse/Forward) system assists the driver during movement of the

vehicle by chiming if any object is sensed within the distance of 100 cm (39 inches) in front and 120 cm (47 inches) behind the vehicle.

This system is a supplemental system that senses objects within the range and location of the sensors, it cannot detect objects in other areas where sensors are not installed.

# **▲** WARNING

- ALWAYS look around your vehicle to make sure there are no objects or obstacles before moving the vehicle in any direction to prevent a collision.
- Always pay close attention when the vehicle is driven close to objects, particularly pedestrians, and especially children.
- Be aware that some objects may not be visible on the screen or be detected by the sensors, due to the objects distance, size or material, all of which can limit the effectiveness of the sensor.

# Operation of the Parking Distance Warning (Reverse/Forward) system



# **Operating condition**

- This system will activate when the Parking Distance Warning (Reverse/ Forward) system button is pressed with the engine running.
- The Parking Distance Warning (Reverse/Forward) system button turns on automatically and activates the Parking Distance Warning (Reverse/Forward) system when you press the R(Reverse) button.

However, if vehicle speed exceeds 10 km/h (6 mph), the system will not warn you even though objects are detected, and if vehicle speed exceeds 20 km/h (12 mph), the system will turn off automatically. To turn on the system, press the Parking Distance Warning (Reverse/Forward) system button.

 When more than two objects are sensed at the same time, the closest one will be recognized first.

Types of warning sound and indicator

cm (in)

Distance from object		Warning indicator		
		When driving forward	When driving rearward	Warning sound
61 ~ 100 (24 ~39)	Front		-	Buzzer beeps intermittently
61 ~ 120 (24 ~47)	Rear	-		Buzzer beeps intermittently
31 ~ 60 (12 ~24)	Front		<b>I</b>	Buzzer beeps frequently
	Rear	-		Buzzer beeps frequently
30 (12)	Front			Buzzer sounds continuously
	Rear	-		Buzzer sounds continuously

#### NOTICE

- The indicator may differ from the illustration depending on objects or sensors status. If the indicator blinks, we recommend that the system be checked by an authorized HYUNDAI dealer.
- If the audible warning does not sound or if the buzzer sounds intermittently when shifting into R (Reverse) position, this may indicate a malfunction with the Parking Distance Warning (Reverse/Forward) system. If this occurs, we recommend that you have your vehicle checked by an authorized HYUNDAI dealer as soon as possible.

#### Non-operational conditions of Parking Distance Warning (Reverse/Forward) system

Parking Distance Warning (Reverse/Forward) system may not operate normally when:

- · Moisture is frozen to the sensor.
- Sensor is covered with foreign matter, such as snow or water, or the sensor cover is blocked.

There is a possibility of Parking Distance Warning (Reverse/Forward) system malfunction when:

- Driving on uneven road surfaces such as unpaved roads, gravel, bumps, or gradient.
- Objects generating excessive noise such as vehicle horns, loud motorcycle engines, or truck air brakes can interfere with the sensor.
- · Heavy rain or water spray is present.
- Wireless transmitters or mobile phones are present near the sensor.
- The sensor is covered with snow.
- Any non-factory equipment or accessories have been installed, or if the vehicle bumper height or sensor installation has been modified.

**Detecting range may decrease when:** 

- Outside air temperature extremely hot or cold.
- Undetectable objects smaller than 1 m and narrower than 14 cm in diameter.

The following objects may not be recognized by the sensor:

- 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.

### **▲** WARNING

Your new vehicle warranty does not cover any accidents or damage to the vehicle or injuries to its occupants related to a Parking Distance Warning (Reverse/Forward) system.

Always drive safely and cautiously.

# Parking Distance Warning (Reverse/Forward) system precautions

- The Parking Distance Warning (Reverse/Forward) system may not sound consistently depending on the speed and shapes of the objects detected.
- The Parking Distance Warning (Reverse/Forward) system may malfunction if the vehicle bumper height or sensor installation has been modified or damaged. Any non-factory installed equipment or accessories may also interfere with the sensor performance.
- The sensor may not recognize objects less than 30 cm (11 in.) from the sensor, or it may sense an incorrect distance. Use caution.
- When the sensor is frozen or stained with snow, dirt, or water, the sensor may be inoperative until the stains are removed using a soft cloth.
- Do not push, scratch or strike the sensor. Sensor damage could occur.

Do not spray the 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.

# Surround view monitor (if equipped)



The Surround View Monitor system can assist in parking by allowing the driver to see around the vehicle. Push the button (1, indicator ON) to operate the system. To cancel the system, push the button again (1, indicator OFF).

# Operating conditions

- When the Engine Start/Stop button is in the ON position
- When the transmission is in D, N or R
- When vehicle speed is under 15km/h

# *i* Information

- When vehicle speed is over 15km/h, the system will turn off. The system will not automatically turn on again, even though vehicle speed gets below 15 km/h. Push the button (1, indicator ON) again, to turn on the system.
- When the vehicle is backing up, the system will turn ON regardless of vehicle speed or button status. However, if vehicle speed is over 15 km/h when driving forward, the SVM system will turn off.
- A warning appears on the system when:
  - The tailgate is opened
  - The driver's door is opened
  - The passenger's door is opened
  - The outside rearview mirror is folded
- If the system is not operating normally, we recommend that you take your vehicle to an authorized HYUNDAI dealer and have the system checked.

For more details, refer to the separately supplied manual with your vehicle.

# **!** CAUTION



- (1) Front camera
- (2) Left/Right camera
- (3) Rear camera

OLX2048406L

Surround View Monitor system only serves to assist the driver in parking. ALWAYS look around your vehicle to make sure there are no objects or obstacles before moving the vehicle.

#### NOTICE

Always keep the camera lens clean. The camera may not work normally if the lens is covered with foreign material. However, do not use chemical solvents such as strong detergents containing high alkaline or volatile organic solvents (gasoline, acetone etc.). This may damage the camera lens.

# Rear view monitor (if equipped)



You may check the rear view through the screen while driving.

3

The system is activated when:

- The engine is ON
- The vehicle's speed is over 15 km/h and you press the SVM button (1, indicator ON)
- The vehicle's speed is under 15 km/h and you press the (2) on the screen

The system is deactivated when:

- You press the SVM button (1, indicator OFF) again
- You press the screen again (2) on the
- You press the AVN system button (3)

# *i* Information

- If vehicle speed is over 15 km/h (9 mph)
  - the rear image stays ON when the rear view was on the screen
  - if other modes (top, front wide, front right and front left) of SVM system was on the screen, the screen changes to the screen of rear view.

- If the SVM system is ON and the vehicle speed is under 15 km/h (9 mph)
  - the rear image stays ON when the rear view was on the screen
  - a pop-up for selecting the SVM mode (top, front wide, front right and front left) appears when pressing (2) on the screen
- When the vehicle is backing up, the rear image will appear on the screen automatically regardless of the vehicle speed or SVM button (1) status.
  - If the rear image was ON, the screen switches to the parking assist screen.
  - If the screen (top, front wide, front right and front left) of other modes of SVM system was ON, the screen for setting the initial rear view mode appears.
  - When the shift button is shifted from R (Reverse) to D (Drive), the screen of the previous mode is displayed.

- A warning appears on the SVM system when
  - the tailgate is opened
  - the driver/passenger's door is opened
  - the outside rearview mirror is folded

#### **A** WARNING

- The Rear View Monitor system is a supplementary driving assist system. Make sure to check the rear view directly for safety. What you see on the screen may differ from the actual vehicle's location.
- The camera may not operate properly if any foreign substance is on the rear camera lens. Always keep the lens clean.
- When the rear view is displayed while driving, an icon
   is indicated on the upper

right side of the screen.

# Blind-spot View Monitor system (if equipped)



BVM (Blind-spot View Monitor) system displays the driver-side or passenger-side rear areas in the cluster when the system is activated.

To turn on BVM system: Under condition BVM system is enabled in the settings

- 1. The ignition switch is turned to the ON position.
- 2. The turn signal is activated.

To turn off BVM system

- 1. The ignition switch is turned to the OFF position.
- 2. The turn signal is deactivated.
- Other warning screen pops up and takes priority over the BVM system.

### System setting

With the engine ON, the Blind-spot View Monitor system turns on and gets ready to be activated when the 'User Settings  $\rightarrow$  Driver Assistance  $\rightarrow$  Blind-spot safety  $\rightarrow$  Blind-spot view' is selected on the cluster. The system stops operation when the setting is deactivated.

# **A** CAUTION

- Like all assistance systems, BVM system has limitations. Over-reliance on the system may result in a collision.
- Always look around your vehicle to make sure there are no objects or obstacles before moving the vehicle in any direction to prevent a collision.
- Objects are closer than they appear. Failure to visually confirm that is safe to change the lane before doing so may result in crash and serious injury or death.
- Always keep the camera lens clean. The camera may not work normally if the lens is covered with foreign material.

### **DEFROSTER**

#### NOTICE

To prevent damage to the conductors bonded to the inside surface of the rear window, never use sharp instruments or window cleaners containing abrasives to clean the window.

# Information

If you want to defrost and defog the front windshield, refer to "Windshield Defrosting and Defogging" in this chapter.

#### **Rear window defroster**



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 facia switch 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 ignition switch is in the OFF position.

# Outside mirror defroster (if equipped)

If your vehicle is equipped with outside mirror defrosters, they will operate at the same time you turn on the rear window defroster.

# MANUAL CLIMATE CONTROL SYSTEM (IF EQUIPPED)

■ Front



#### Front

- 1. Fan speed control knob
- 2. Temperature control knob
- 3. Air conditioning button
- 4. Mode selection button
- 5. Front windshield defroster button
- 6. Rear window defroster button
- 7. Air intake control button
- 8. Rear climate control button

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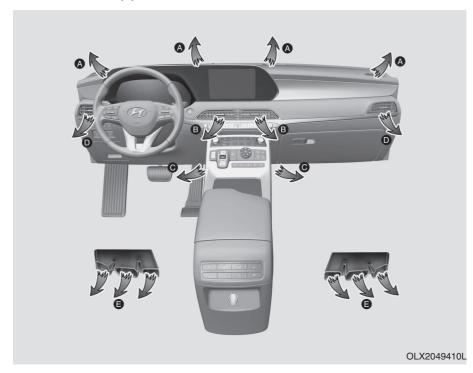
# Heating and air conditioning

- 1. Start the engine.
- 2. Set the mode to the desired position.

To improve 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.

# Mode selection (4)



The mode selection button controls the direction of the air flow through the ventilation system.



# Face-Level (B, D)

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)

Air flow is directed towards the face and the floor.



Floor-Level (A, C, D, E)

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, C, D, E)

Most of the air flow is directed to the floor and the windshield with a small amount directed to the side window defrosters.



Front defroster (5) (A, D)

Most of the air flow is directed to the windshield with a small amount of air directed to the side window defrosters.



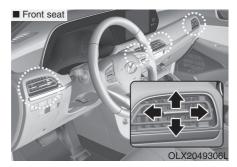
OLX2048326L

A/C MAX-Level (B, D) (if equipped)

To operate the A/C MAX, turn the temperature control knob to extreme left. Air flow is directed toward the upper body and face.

In this mode, the air conditioning and the recirculated air position will be selected automatically.

After the interior has cooled sufficiently, whenever possible, move the temperature knob away from A/C MAX and press the A/C button.



### **Instrument panel vents**

The outlet vents can be opened or closed separately using the vent control lever. If you move the vent control lever to the left end, the outlet vents can be closed.

# Temperature control (2)

The temperature will increase by turning the knob to the right. The temperature will decrease by turning the knob to the left.

### Air intake control (7)

This is used to select outside (fresh) air position or recirculated air position. To change the air intake control position, press 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.

# *i* 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.

# **A** 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 (1)

Turn the knob to the right to increase the fan speed and airflow. Turn the knob to the left to decrease fan speed and airflow.

Setting the fan speed control knob to the "0" position turns off the fan.

### NOTICE

Operating the fan speed when the ignition switch is in the ON position could cause the battery to discharge. Operate the fan speed when the engine is running.

# Air conditioning (A/C) (3) (if equipped)

Press the A/C button to turn the air conditioning system on (indicator light will illuminate). Press the button again to turn the air conditioning system off

#### Rear climate control button



If you press the rear climate control button, rear passengers can control the rear climate system.

#### Rear climate control

#### ■ 2nd row air conditioning control

• Type A



• Type B



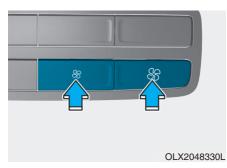
- 1. OFF button
- 2. Mode selection button
- 3. Temperature control button
- 4. Fan speed control button

If you press the rear climate control button of the front climate control system, rear passengers can control the rear climate system by using the rear climate control system.

#### Fan speed control



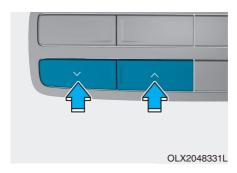
 Press the rear climate control button of the front climate control system.



 The fan speed can be set to the desired speed by pushing the fan speed control button. The higher the fan speed is, the more air is delivered. Pressing the OFF button turns off the fan.

# Temperature control

 Press the rear climate control button of the front climate control system.



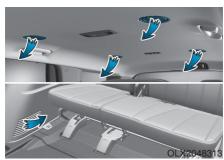
To turn off the 3rd row air conditioning control system, press the 3rd row air conditioning ON/OFF button once more located on the front climate control panel or set the fan speed to the OFF position with the 3rd row fan speed switch (indicator light on the ON/OFF button is not illuminated).

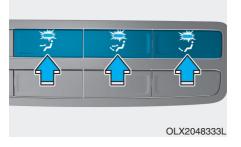
#### OFF mode



Push the OFF button to turn the rear climate control system off.

#### Mode selection





You can select the direction of the air flow through the ventilation system.



: Air flow is directed toward the upper body from the rear headlining.



: Air flow is directed toward the upper body and the flow.



: Air flow is directed toward the flow.

You can adjust the front climate control system for heating or cooling to passengers on 2nd row seats. The air flow is directed from the floor.

### Rear vents on the headlining



The rear passengers can adjust the direction of air flow from the rear vents on the headlining.

If you operate the rear climate control with rear vents closed, a noise may sound. When operating the rear climate control, open two or more rear vents.

No	Diffusion lever (A)	Direction thumbwheel (B)	Description
1	Open ( )	Close	The air is delivered widely toward the sur- roundings of rear passengers. However, the fan speed may be decreased.
2	Open ( )	Open	The air is delivered widely toward the rear passengers and surrounding of rear passengers.
3	Close	Open	The air is only delivered toward the rear passengers.

# **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 (if equipped) on.

If the windshield fogs up, set the mode to the virial 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-134a 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.

# **i** Information

Your vehicle is filled with R-134a according to the regulation in your country at the time of production. You can find out which air conditioning refrigerant is applied to your vehicle on the label located inside of the hood. Refer to chapter 8 for the location of the air conditioning refrigerant label.

### 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.

#### 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.
- When opening the windows in humid weather air conditioning may create water droplets inside the vehicle. Since excessive water droplets may cause damage to electrical equipment, air conditioning should only be used with the windows closed.

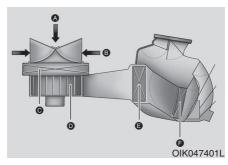
# Air conditioning system operation tips

 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 knob to the position and set the fan speed control knob to the lowest speed setting.

# **System maintenance**

#### Climate control air filter



- [A] : Outside air, [B] : Recirculated air
- $[\mbox{\ensuremath{C}}]$  : Climate control air filter,  $[\mbox{\ensuremath{D}}]$  : Blower
- [E]: Evaporator core, [F]: Heater core

This 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.

We recommend that the climate control air filter be 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, we recommend the system be checked at an authorized HYUNDAI dealer.

# Checking the amount of air conditioner refrigerant and compressor lubricant

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, we recommend that the system be 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.

# **A** WARNING

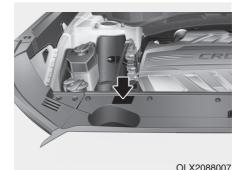
Vehicles equipped with R-134a



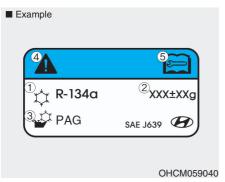
Since the refrigerant is operated at very high pressure, the air conditioning system should only be serv-

iced by trained and certified technicians.

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.



Each symbols 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. Service manual

# **AUTOMATIC CLIMATE CONTROL SYSTEM (IF EQUIPPED)**

■ Front



#### Front

- 1. Driver's temperature control knob
- 2. Passenger's temperature control knob
- 3. AUTO (automatic control) button
- 4. SYNC button
- 5. OFF button
- 6. Front windshield defroster button
- 7. Air conditioning button
- 8. Fan speed control button
- 9. Mode selection button
- 10. Rear climate control button
- 11. Rear window defroster button
- 12. Air intake control button
- 13. Climate control information screen

OLX2048300L

# 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.

 Turn the temperature control 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.

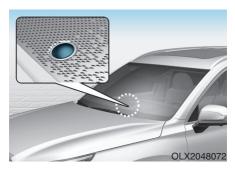
To turn the automatic operation off, select any button of the following:

- 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 23°C (73°F).



# 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: 🕶
- 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.

# Mode selection (9)



The mode selection button controls the direction of the air flow through the ventilation system.



Face-Level (B, D)

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)

Air flow is directed towards the face and the floor.



Floor-Level (A, C, D, E)

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, C, D, E)

Most of the air flow is directed to the floor and the windshield with a small amount directed to the side window defrosters.

#### Defrost-Level (6) (A, D)

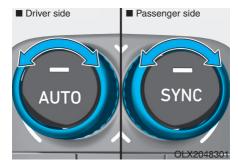
Most of the air flow is directed to the windshield with a small amount of air directed to the side window defrosters.



#### **Instrument panel vents**

The outlet vents can be opened or closed separately using the vent control lever. If you move the vent control lever to the left end, the outlet vents can be closed.

# Temperature control (1, 2)



The temperature will increase by turning the knob to the right. The temperature will decrease by turning the knob to the left.



Adjusting the driver and passenger side temperature equally

 Press the "SYNC" button (4) 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 again to adjust the driver and passenger side temperature individually. The button indicator will turn off.

### **Temperature conversion**

If the battery has been discharged or disconnected, the temperature mode display will reset to Centigrade.

To change the temperature unit from °C to °F or °F to °C:

- Automatic climate control system
   Press the AUTO button for 3 seconds while pressing the OFF button.
- Instrument cluster
   Go to User Settings Mode → Other
   Features → Temperature Unit.

The temperature unit on both the cluster LCD display and the climate control screen will change.

### Air intake control (12)

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.

# *i* 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.

# **A** 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 (8)

The fan speed can be set as desired by pushing the fan speed control button.

More air 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 (7)

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 (5)

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.

#### Rear climate control button



If you press the rear climate control button, rear passengers can control the rear climate system.

#### **Rear climate control**

#### ■ 2nd row air conditioning control



OI X2048318

- 1. AUTO button
- 2. Temperature control button
- 3. Mode selection button
- 4. Fan speed control button
- 5. OFF button
- 6. Climate control information screen

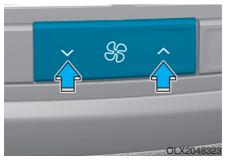
If you press the rear climate control button of the front climate control system, rear passengers can control the rear climate system by using the rear climate control system.

- \* When you want to use the rear climate control (heating and air conditioning)
- 1. Press the air conditioning button of the front climate control.
- 2. Adjust the rear climate control (temperature, air direction and fan speed).
- 3. Check that "Lock Control" is not selected in the AVN or Audio. If "Lock Control" is selected, the rear climate control is not adjusted in the rear climate control panel.

# Fan speed control



 Press the rear climate control button of the front climate control system.



The fan speed can be set to the desired speed by pushing the fan speed control button. The higher the fan speed is, the more air is delivered. Pressing the OFF button turns off the fan.

# Temperature control

 Press the rear climate control button of the front climate control system.



The temperature of delivered air can be set to the desired temperature by pushing the temperature control button.

Pressing the OFF button turns off the fan.

#### AUTO mode



The rear automatic climate control system is controlled by setting the desired temperature.

- Press the AUTO button. The modes, fan speeds, air intake and air-conditioning will be controlled automatically by the temperature setting you select.
- 2. Press the temperature control button to the desired temperature.

#### OFF mode

Push the OFF button (5) to turn the rear climate control system off.

#### Mode selection





You can select the direction of the air flow through the ventilation system.

You can adjust the front climate control system for heating or cooling to passengers on 2nd row seats. The air flow is directed from the floor.



: Air flow is directed toward the upper body from the rear headlining.



: Air flow is directed toward the upper body and the flow.



: Air flow is directed toward the flow.

# Rear vents on the headlining



The rear passengers can adjust the direction of air flow from the rear vents on the headlining.

No	Diffusion lever (A)	Direction thumbwheel (B)	Description
1	Open ( )	Close	The air is delivered widely toward the sur- roundings of rear passengers. However, the fan speed may be decreased.
2	Open ( )	Open	The air is delivered widely toward the rear passengers and surrounding of rear passengers.
3	Close	Open	The air is only delivered toward the rear passengers.

If you operate the rear climate control with rear vents closed, a noise may sound. When operating the rear climate control, open two or more rear vents.

# **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 virial or to 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-134a refrigerant.

- 1. Start the engine. Push the air conditioning button.
- 2. Set the mode to the position.
- 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.

# **1** Information

Your vehicle is filled with R-134a according to the regulation in your country at the time of production. You can find out which air conditioning refrigerant is applied to your vehicle on the label located inside of the hood. Refer to chapter 8 for the location of the air conditioning refrigerant label.

#### 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.

#### 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.  When opening the windows in humid weather air conditioning may create water droplets inside the vehicle. Since excessive water droplets may cause damage to electrical equipment, air conditioning should only be used with the windows closed.

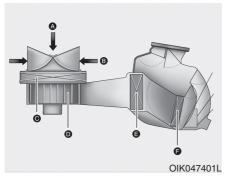
# Air conditioning system operation tips

- 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**

### Climate control air filter



[A]: Outside air, [B]: Recirculated air

[C]: Climate control air filter, [D]: Blower

[E]: Evaporator core, [F]: Heater core

This 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.

We recommend that the climate control air filter be 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, we recommend the system be checked at an authorized HYUNDAI dealer.

# Checking the amount of air conditioner refrigerant and compressor lubricant

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, we recommend that the system be 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.

# **▲** WARNING

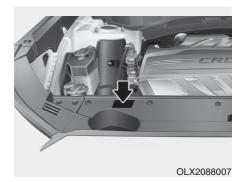
Vehicles equipped with R-134a



Since the refrigerant is operated at very high pressure, the air conditioning system should only be serv-

iced by trained and certified technicians.

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.



Each symbols 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. Service manual

### WINDSHIELD DEFROSTING AND DEFOGGING

# **A** WARNING

#### Windshield heating

Do not use the vir or 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. In this case, set the mode selection knob or button to the position and fan speed control knob or button to lower speed.

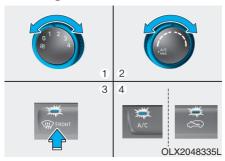
- For maximum windshield defrosting, set the temperature control knob to the highest temperature setting and the fan control knob to the highest fan speed. Select the front defrost button on the climate control display. After the engine warm-up period, warm air will be directed to the front windshield.
- 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, outside rear 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 inside of the windshield.

# *i* Information

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.

# **Manual climate control system**

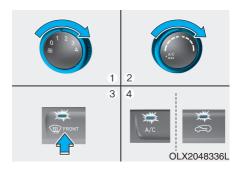
# To defog inside windshield



- Select any fan speed except "0" position.
- 2. Select the desired temperature.
- 3. Press the defroster button ( ).
- 4. The outside (fresh) air will be selected automatically. Additionally, the air conditioning (if equipped) will automatically operate if the mode is selected to the mode is position.

If the air conditioning and outside (fresh) air position are not selected automatically, press the corresponding button manually.

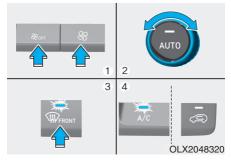
#### To defrost outside windshield



- 1. Set the fan speed to the highest (extreme right) position.
- 2. Set the temperature to the extreme hot position.
- 3. Press the defroster button ( ).
- The outside (fresh) air and air conditioning (if equipped) will be selected automatically.

# Automatic climate control system

# To defog inside windshield

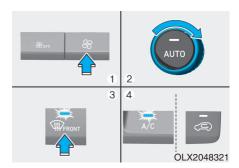


- 1. Select the desired fan speed.
- 2. Select the desired temperature.
- 3. Press the defroster button ( ).
- 4. The air-conditioning will turn on according to the detected ambient temperature, outside (fresh) air position and higher fan speed will be selected automatically.

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 mosition 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 ( ).
- The air-conditioning will turn on according to the detected ambient temperature and outside (fresh) air position will be selected automatically.

If the mosition is selected, lower fan speed is controlled to higher fan speed.

## **CLIMATE CONTROL ADDITIONAL FEATURES**

## Clean air (if equipped)

When the ignition switch is in the ON position, the clean air function turns on automatically.

Also, the clean air function turns off automatically, when the ignition switch is in the OFF position.

# Automatic ventilation (if equipped)

To increase cabin air quality and reduce windscreen misting, air recirculation mode switches off automatically after about 5 to 30 minutes, depending on outside temperature, and the air intake will change to outside (fresh) mode.

To cancel or set the automatic ventilation feature, select Face level mode and while pressing the air conditioning button (A/C), press the air recirculation mode button at least 5 times within 3 seconds.

When the automatic ventilation is set, the air recirculation indicator will blink 6 times. When canceled, the indicator will blink 3 times.

# Sunroof inside air recirculation (if equipped)

When the sunroof is opened, outside (fresh) air will be automatically selected. At this time, if you press the air intake control button, recirculated air position will be selected but will change back to outside (fresh) air after 3 minutes.

When the sunroof is closed, the air intake position will return to the original position that was selected.

# Auto comfort control (for driver's seat) (if equipped)

The temperature of the driver's seat warmer, air ventilation 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 this function, it must be activated from the Settings menu in the Audio / AVN system screen. Select:

- All menus → Setup → Vehicle → Heated / Ventilated Features

For more details on Auto Comfort Control, refer to "Seat warmers and air ventilation seat" in chapter 2, and "Heated steering wheel" in chapter 3.

#### STORAGE COMPARTMENT

## **A** 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.

## **A** 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

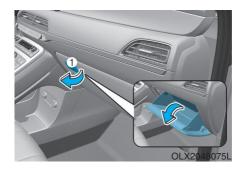
To avoid possible theft, do not leave valuables in the storage compartments.

#### **Center console storage**



To open: Pull the lever.

#### **Glove box**



Pull the lever (1), then the glove box opens.

## **A** 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)**



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 Ashtray (if equipped)



To use the ashtray, open the cover.

To clean the ashtray:

The plastic receptacle should be removed by lifting the plastic ashtray receptacle upward after turning the cover counterclockwise and pulling it out.

## **A** WARNING

Putting lit cigarettes or matches in an ashtray with other combustible materials may cause a fire.

## **Cigarette lighter (if equipped)**



To use the cigarette lighter, the ignition switch must be in the ACC or ON position.

Push the cigarette lighter all the way into its socket. When the element is heated, the lighter will pop out to the "ready" position.

We recommend that you use parts for replacement from an authorized HYUNDAI dealer.

## **⚠** WARNING

- Do not hold the lighter in after it is already heated because it will overheat.
- If the lighter does not pop out within 30 seconds, remove it to prevent overheating.
- Do not insert foreign objects into the socket of the cigarette lighter. It may damage the cigarette lighter.

#### NOTICE

Only a genuine HYUNDAI lighter or the equivalent specified for your vehicle should be used in the cigarette lighter socket. The use of plug-in accessories (shavers, hand-held vacuums, and coffee pots, etc.) may damage the socket or cause electrical failure.

### **Cup holder**

#### **Front**



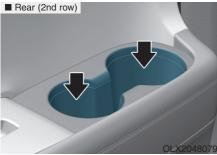


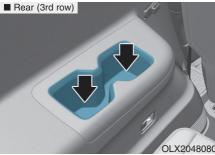
Push the button and the cover opens. Push the buttons and the cup supporter protrudes from the front console. Push in the cup supporter securely after use.

## **A** CAUTION

Do not place thin objects (coin, card etc.) on the cover. These may fall into the inside when the cover is operated.

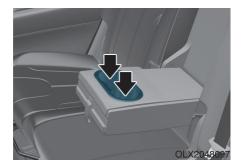
## Rear (2nd row, 3rd row)





Cups or small beverages cups may be placed in the cup holders.

## Rear (2nd row, 8 passengers vehicle)



Pull the armrest down to use the cup holders.

#### **A** 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. It may 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 dry the cup holder at high temperature. This may damage the cup holder.

#### **Conversation mirror**



You can see widely the rear view through the conversation mirror.

To open:

Press the cover and the holder will slowly open.

To close:

Push back into position.

#### **Sunvisor**

To use a sunvisor, pull it downward.

To use a sunvisor for a side window, pull it downward, unsnap it from the bracket (1) and swing it to the side (2).

To use the vanity mirror, pull down the sunvisor and slide the mirror cover (3).

Adjust the sunvisor forward or backward(4) as needed.

Use the ticket holder (5) to hold tickets.

## **i** Information

Close the vanity mirror cover securely and return the sunvisor to its original position after use.

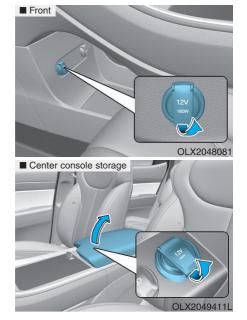
#### **A** WARNING

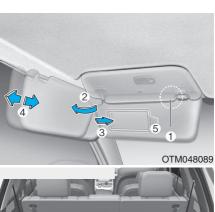
For your safety, do not block your view when using the sunvisor.

#### NOTICE

Do not put several tickets in the ticket holder at one time. This could cause damage to the ticket holder.

#### Power outlet (if equipped)







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 W(Watt) with the engine running.

#### **A** 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.

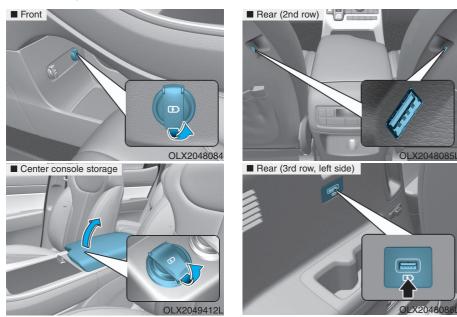
#### NOTICE

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 12V electric accessories which are less than 180 W(Watt) 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.

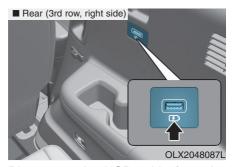
## **USB** charger (if equipped)



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 ignition switch or the Engine Start/Stop button is in the ACC, ON or START position.

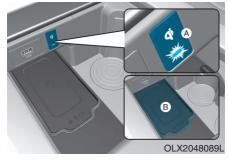
The battery charging state may be monitored on the electrical device.



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 on the AVN.

# Wireless cellular phone charging system (if equipped)



[A]: Indicator, [B]: Charging pad

There is a wireless cellular phone charger inside the front console.

The system is available when all doors are closed, and when the ignition switch is in the ACC/ON position.

## To charge a cellular phone

The wireless cellular phone charging system charges only the Qi-enabled cellular phones (  $\mathbf{Q}^{i}$  ). Read the label on the cellular phone accessory cover or visit your cellular phone manufacturer's website to check whether your cellular phone supports the Qi technology.

The wireless charging process starts when you put a Qi-enabled cellular phone on the wireless charging unit.

- Remove other items, including the smart key, from the wireless charging unit. If not, the wireless charging process may be interrupted. Place the cellular phone on the center of charging pad.
- The indicator light is orange when the cellular phone is charging. The indicator light turns green when phone charging is complete.
- You can turn ON or OFF the wireless charging function in the User Settings mode on the instrument cluster. For further information, refer to the "LCD Display Modes" in this chapter.

If your cellular phone is not charging:

- Slightly change the position of the cellular 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 wirelessly charge your cellular phone again.

The system warns you with a message on the LCD display if the cellular phone is still on the wireless charging unit after the engine is turned OFF and the front door is opened.

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.

#### NOTICE

- The wireless cellular phone charging system may not support certain cellular phones, which are not verified for the Qi specification (Qi).
- When placing your cellular phone on the charging mat, position the phone in the middle of the mat for optimal charging performance. If your cell phone is off to the side, the charging rate may be less and in some cases the cell phone may experience higher heat conduction.
- In some cases, the wireless charging may stop temporarily when the Remote Key or Smart Key is used, either when starting the vehicle or locking/unlocking the doors, etc.
- When charging certain cellular phones, the charging indicator may not change to green when the cell phone is fully charged.

- The wireless charging process may temporarily stop, when temperature abnormally increases inside the wireless cellular 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 cellular phone charging system and a cellular phone.
- When charging some cellular phones with a self-protection feature, the wireless charging speed may decrease and the wireless charging may stop.
- If the cellular phone has a thick cover, the wireless charging may not be possible.
- If the cellular phone is not completely contacting the charging pad, wireless charging may not operate properly.

- Some magnetic items (credit cards, phone cards, passbook and tickets) may be damaged while using the wireless charging process.
- When any cellular 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 cellular phone in any way.

## **i** Information

If the ignition switch is in the OFF position, the charging also stops.

#### Clock

## **A** WARNING

Do not adjust the clock while driving. You may lose your steering control and cause severe personal injury or accidents.

You can set the time through audio or AVN.

For more details, please refer to the separate manual that was supplied with your vehicle.

## Clothes hanger (if equipped)



These hangers are not designed to hold large or heavy items.

## **A** 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) (if equipped)

ALWAYS use the Floor Mat Anchors to attach the floor mats to the vehicle. The anchors on the front floor carpet keep the floor mats from sliding forward.

#### **A** WARNING

The following must be observed when installing ANY floor mat to the vehicle.

- 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 (e.g. 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)

To keep items from shifting in the luggage compartment, you can use the four holders located in the luggage compartment, to attach the luggage net.

If necessary, we recommend that you contact your authorized HYUNDAI dealer to obtain a luggage net.

## **A** CAUTION

To prevent damage to the goods or the vehicle, care should be taken when carrying fragile or bulky objects in the luggage compartment.

## **A** WARNING

To 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.

# Cargo security screen (if equipped)



Use the cargo security screen to hide items stored in the cargo area.

## To use the cargo security screen



- 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.

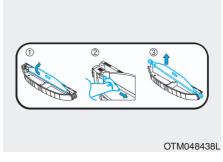
## Information

The cargo security screen may not automatically slide back in if the cargo security screen is not fully pulled out. Fully pull it out and then let go.

## To remove the cargo security screen

- 1. Push in the guide pin.
- 2. While pushing the guide pin, pull out the cargo security screen.
- Open the luggage tray and keep the cargo security screen in the tray.

# To remove the cargo security screen from the luggage tray



- 1. Pull up the screen board.
- 2. Push in the guide pin.
- 3. While pushing the guide pin, pull out the cargo security screen.

## **▲** 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.

#### NOTICE

Since the cargo security screen may be damaged or malformed, do not put luggage on it when it is used.

## Side curtain (if equipped)



To use the side curtain:

- 1. Lift the curtain by the curtain knob (1).
- 2. Hang the curtain on both sides of the hook.

## **A** CAUTION

- Always hang both sides of the curtain on the hook. This could cause damage to the side curtain if only one side of the curtain is hooked.
- Do not let any foreign material get in between the vehicle and side curtain. The side curtain may not be lifted up.
- Do not hang other objects except the side curtain.
- When using the side curtain and turning it back into place, pulling the curtain or applying force may cause damage to the side curtain. When lowering the curtain, be sure to place the curtain knob downward in that state and slowly return it to the position.

# **EXTERIOR FEATURES**Roof rack (if equipped)



If the vehicle has a roof rack, you can load cargo on top of your vehicle.

#### NOTICE

If the vehicle is equipped with a sunroof, be sure not to position cargo onto the roof rack in such a way that it could interfere with sunroof operation.

#### NOTICE

- When carrying cargo on the roof rack, take the necessary precautions to make sure the cargo does not damage the roof of the vehicle.
- When carrying large objects on the roof rack, make sure they do not exceed the overall roof length or width.

### **A** WARNING

 The following specification is the maximum weight that can be loaded onto the roof rack. Distribute the load as evenly as possible onto the roof rack and secure the load firmly.

ROOF 100 kg (220 lbs.)
RACK EVENLY DISTRIBUTED

Loading cargo or luggage in excess of the specified weight limit on the roof rack may damage your vehicle.

- The vehicle center of gravity will be higher when items are loaded onto the roof rack.
   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 rack. Severe wind updrafts, caused by passing vehicles or natural causes, can cause sudden upward pressure on items loaded on the roof rack. 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 rack 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 rack are securely fastened.

#### 4

## Multimedia System

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#### **MULTIMEDIA SYSTEM**

## **i** Information

- If you install an aftermarket HID headlamp, your vehicle's audio and electronic devices may malfunction.
- 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



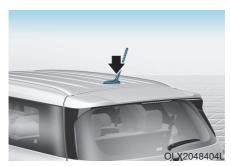
You can use an USB port to plug in an USB port.

## *i* Information

When using a portable audio device connected to the power outlet, noise may occur during playback. If this happens, use the power source of the portable audio device.

#### **Antenna**

#### Pole antenna



The pole antenna receives both AM and FM broadcast signals.

This antenna pole is removable.

Rotate the antenna in a counterclockwise direction to remove it.

Rotate it in a clockwise direction to reinstall it.

## NOTICE

- Before entering a place with a low height clearance or a car wash, remove the antenna pole by rotating it counterclockwise. If not, the antenna may be damaged.
- When reinstalling your roof antenna, it is important that it is fully tightened and adjusted to the upright position to ensure proper reception.
- When cargo is loaded on the roof rack, do not place the cargo near the antenna pole to ensure proper reception.

#### Shark fin antenna



The shark fin antenna receives transmitted data.

(for example: AM/FM, GPS)

# Steering wheel audio controls (if equipped)



■ For Europe



The steering wheel audio control switches are installed for your convenience.

#### NOTICE

Do not operate audio remote control buttons simultaneously.

## *VOLUME (VOL + / - ) (1)*

- Move the VOLUME toggle switch up to increase volume.
- Move the VOLUME toggle switch down to decrease volume.

## SEEK/PRESET ( $\wedge$ / $\vee$ ) (2)

If the SEEK/PRESET toggle switch is moved up or down and held for 0.8 seconds or more, it will function in the following modes.

#### RADIO mode

It will function as the AUTO SEEK select switch. It will SEEK until you release the switch.

#### **MEDIA** mode

It will function as the FF/REW switch.

If the SEEK/PRESET toggle switch is moved up or down, it will function in the following modes.

#### **RADIO** mode

It will function as the PRESET STATION UP/DOWN switch.

#### **MEDIA** mode

It will function as the TRACK UP/DOWN switch.

## MODE (()) (3)

Press the MODE button to select Radio and Media.

## *MUTE* ( **♀** ) (4)

- Press the button to mute the sound.
- Press the button again to activate the sound.

## **i** Information

Detailed information for audio control buttons are described in the separately supplied manual with vehicle.

## **Bluetooth® Wireless Technology** hands-free





You can use the phone wirelessly by using the *Bluetooth®* Wireless Technology.

- (1) Call / Answer button
- (2) Call end button
- (3) Microphone

#### Audio/AVN:

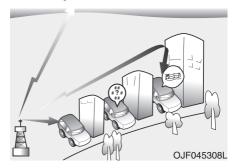
Detailed information for the *Bluetooth®* Wireless Technology hands-free is described in the manual supplied separately.

## Audio / Video / Navigation system (if equipped)

Detailed information for the Audio/ AVN system is described in a separately supplied manual.

### How vehicle radio works

#### FM reception

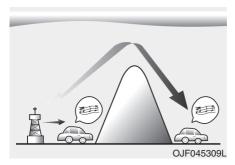


AM and FM radio signals are broadcast from transmitter towers located around your city. They are intercepted by the radio antenna on your vehicle. This signal is then received by the radio and sent to your vehicle speakers.

When a strong radio signal has reached your vehicle, the precise engineering of your audio system ensures the best possible quality reproduction. However, in some cases the signal coming to your vehicle may not be strong and clear.

This can be due to factors, such as the distance from the radio station, closeness of other strong radio stations or the presence of buildings, bridges or other large obstructions in the area.

#### AM (MW, LW) reception

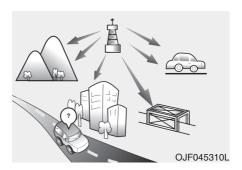


AM broadcasts can be received at greater distances than FM broadcasts. This is because AM radio waves are transmitted at low frequencies. These long, low frequency radio waves can follow the curvature of the earth rather than travelling

In addition, they curve around obstructions so that they can provide better signal coverage.

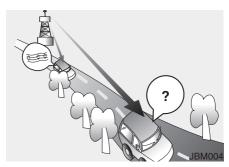
straight out into the atmosphere.

#### FM radio station

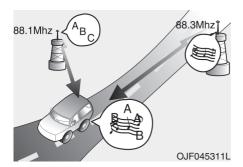


FM broadcasts are transmitted at high frequencies and do not bend to follow the earth's surface. Because of this, FM broadcasts generally begin to fade at short distances from the station. Also, FM signals are easily affected by buildings, mountains, or other obstructions. These can result in certain listening conditions which might lead you to believe a problem exists with your radio.

The following conditions are normal and do not indicate radio trouble:



- Fading As your vehicle moves away from the radio station, the signal will weaken and sound will begin to fade. When this occurs, we suggest that you select another stronger station.
- Flutter/Static Weak FM signals or large obstructions between the transmitter and your radio can disturb the signal causing static or fluttering noises to occur. Reducing the treble level may lessen this effect until the disturbance clears.



- Station Swapping As a FM signal weakens, another more powerful signal near the same frequency may begin to play. This is because your radio is designed to lock onto the clearest signal. If this occurs, select another station with a stronger signal.
- Multi-Path Cancellation Radio signals being received from several directions can cause distortion or fluttering. This can be caused by a direct and reflected signal from the same station, or by signals from two stations with close frequencies. If this occurs, select another station until the condition has passed.

#### Using a cellular phone or a twoway radio

When a cellular phone is used inside the vehicle, noise may be produced from the audio system. This does not mean that something is wrong with the audio equipment. In such a case, use the cellular phone at a place as far as possible from the audio equipment.

#### NOTICE

When using a communication system such as a cellular phone or a radio set inside the vehicle, a separate external antenna must be fitted. When a cellular phone or a radio set is used with an internal antenna alone, it may interfere with the vehicle's electrical system and adversely affect safe operation of the vehicle.

## **A** WARNING

Do not use a cellular phone while driving. Stop at a safe location to use a cellular phone.

# **Bluetooth®** Wireless Technology

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A *Bluetooth®* Wireless Technology enabled cell phone is required to use *Bluetooth®* Wireless Technology.



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#### **A** 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, we recommend that the exhaust system be 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 tailgate 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.

#### **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 tailgate, and the doors are securely closed and locked.
- Adjust the position of the seat and steering wheel.
- Adjust the inside and outside rearview mirrors.
- Verify all the lights work.
- Fasten your seat belt. Check that all passengers have fastened their seat belt.
- 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" in chapter 2.
- 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.

## **A** WARNING

NEVER drink or take drugs and drive.

Drinking or taking drugs and driving is dangerous and may result in an accident and SERI-OUS 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.

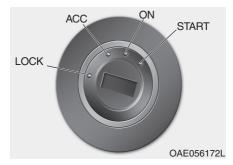
#### **IGNITION SWITCH**

#### **A** 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.

## Key ignition switch (if equipped)



Whenever the front door is opened, the ignition switch will illuminate, provided the ignition switch is not in the ON position. The light will go off immediately when the ignition switch is turned on or go off after about 30 seconds when the door is closed. (if equipped)

## **A** WARNING

 NEVER turn the ignition switch to the LOCK or ACC position while the vehicle is in motion except in an emergency. This will result in the engine 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 P (Park) position, apply the parking brake, and turn the ignition switch to the LOCK position.

Unexpected vehicle movement may occur if these precautions are not followed.

#### NOTICE

Never use aftermarket keyhole covers. This may generate start-up failure due to communication failure.

## Key ignition switch positions

Switch Position	Action	Notes
LOCK	To turn the ignition switch to the LOCK position, push the key in at the ACC position and turn the key towards the LOCK position. The ignition key can be removed in the LOCK position. The steering wheel locks to protect the vehicle from theft. (if equipped)	
ACC	Some electrical accessories are usable. The steering wheel unlocks.	If difficulty is experienced turning the ignition switch to the ACC position, turn the key while turning the steering wheel right and left to release.
ON	This is the normal key position when the engine has started. All features and accessories are usable. The warning lights can be checked when you turn the ignition switch from ACC to ON.	Do not leave the ignition switch in the ON position when the engine is not running to prevent the battery from discharging.
START	To start the engine, turn the ignition switch to the START position. The switch returns to the ON position when you let go of the key.	The engine will crank until you release the key.

#### Starting the engine

## **A** WARNING

- Always wear appropriate shoes when operating your vehicle. Unsuitable shoes, such as high heels, ski boots, sandals, flip-flops, etc., may interfere with your ability to use the brake, accelerator and clutch pedals.
- Do not start the vehicle with the accelerator pedal depressed.
   The vehicle can move which can lead to an accident.
- Wait until the engine rpm is normal. The vehicle may suddenly move if the brake pedal is released when the rpm is high.

#### Starting the gasoline engine

- 1. Make sure the parking brake is applied.
- Make sure the shift button is in P (Park).
- 3. Depress the brake pedal.
- Turn the ignition switch to the START position. Hold the key (maximum of 10 seconds) until the engine starts and release it.

## **1** 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.

#### NOTICE

To prevent damage to the vehicle:

- Do not hold the ignition key in the START position for more than 10 seconds. Wait 5 to 10 seconds before trying again.
- Do not turn the ignition switch to the START position with the engine running. It may damage the starter.
- If traffic and road conditions permit, you may put the shift button in the N (Neutral) position while the vehicle is still moving and turn the ignition switch to the START position in an attempt to restart the engine.
- Do not push or tow your vehicle to start the engine.

#### Starting the diesel engine

To start the diesel engine when the engine is cold, it has to be pre-heated before starting the engine and then have to be warmed up before starting to drive.

- 1. Make sure the parking brake is applied.
- Make sure the shift button is in P (Park).
- 3. Depress the brake pedal.
- Turn the ignition switch to the ON position to pre-heat the engine. The glow indicator light (700) will illuminate.
- 5. When the glow indicator light ( TO) goes out, turn the key ignition switch to the START position. Hold the key (maximum of 10 seconds) until the engine starts and release it.

#### NOTICE

If the engine does not start within 10 seconds after preheating is completed, turn the ignition switch once more to the LOCK position and wait for 10 seconds. Then turn the ignition switch to the ON position in order to preheat the engine again.

Starting and stopping the engine for turbocharger intercooler

- Do not race or accelerate the engine immediately after starting the engine.
  - If the engine is cold, idle for several seconds before sufficient lubrication is ensured in the turbo charger unit.
- After high speed or extended driving that requires heavy engine load, idle the engine about 1 minute before turning the engine off.

This idle time will allow the turbocharger to cool prior to shutting the engine off.

#### NOTICE

Do not turn off the engine immediately after it has been subjected to a heavy load. Doing so may cause severe damage to the engine or turbo charger unit.

#### NOTICE

To prevent damage to the vehicle:

- Do not hold the ignition key in the START position for more than 10 seconds. Wait 5 to 10 seconds before trying again.
- Do not turn the ignition switch to the START position with the engine running. It may damage the starter.
- If traffic and road conditions permit, you may put the shift button in the N (Neutral) position while the vehicle is still moving and turn the ignition switch to the START position in an attempt to restart the engine.
- Do not push or tow your vehicle to start the engine.

# 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.

## **▲** WARNING

To turn the engine 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 engine 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 engine 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.

# Engine Stop/Start button positions

# - Vehicle with automatic transmission

<b>Button Position</b>	Action	Notes
OFF	To turn off the engine, press the Engine Start/Stop button with shift button in P (Park).  The steering wheel locks to protect the vehicle from theft. (if equipped)	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.

# - Vehicle with automatic transmission

<b>Button Position</b>	Action	Notes
ON	Press the Engine Start/Stop button while it is in the ACC position without depressing the brake pedal.	Do not leave the Engine Start/Stop button in the ON position when the engine is not running to prevent the battery from discharging.
	The warning lights can be checked before the engine is started.	
START	To start the engine, depress the brake pedal and press the Engine Start/Stop button with the shift button in the P (Park) or in the N (Neutral) 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:
	For your safety, start the engine with the shift button in the P (Park) position.	$OFF \to ACC \to ON \to OFF  or  ACC$

## Starting the engine

# **A** WARNING

- Always wear appropriate shoes when operating your vehicle. Unsuitable shoes, such as high heels, ski boots, sandals, flip-flops, etc., may interfere with your ability to use the brake, accelerator and clutch pedals.
- Do not start the vehicle with the accelerator pedal depressed.
  - The vehicle can move which can lead to an accident.
- Wait until the engine rpm is normal. The vehicle may suddenly move if the brake pedal is released when the rpm is high.

# *i* Information

- The engine 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, if it is far away from the driver, the engine may not start.
- When the Engine Start/Stop button is in the ACC or ON position, if any door is open, the system checks for the smart key. If the smart key is not in the vehicle, the " " indicator will blink and the warning "Key not in vehicle" will come on, and if all doors are closed, the chime will also sound for about 5 seconds. Keep the smart key in the vehicle when using the ACC position or if the vehicle engine is ON.

## Starting the gasoline engine

Vehicle with automatic transmission:

- 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.

# *i* 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.

### Starting the diesel engine

To start the diesel engine when the engine is cold, it has to be pre-heated before starting the engine and then have to be warmed up before starting to drive.

Vehicle with automatic transmission:

- 1. Always carry the smart key with you.
- 2. Make sure the parking brake is applied.
- Make sure the shift button is in P (Park).
- 4. Depress the brake pedal.
- 5. Press the Engine Start/Stop button.
- 6. Continue depressing the brake pedal until the glow indicator light (で) goes out.
- 7. When the glow indicator light ( 707) goes out, the engine will start.

## NOTICE

If the Engine Start/Stop button is pressed while the engine is preheating, the engine may start.

Starting and stopping the engine for turbocharger intercooler

- 1. Do not race or accelerate the engine immediately after starting the engine.
  - If the engine is cold, idle for several seconds before sufficient lubrication is ensured in the turbo charger unit.
- After high speed or extended driving that requires heavy engine load, idle the engine about 1 minute before turning the engine off. This idle time will allow the turbocharger to cool prior to shutting the engine off.

#### NOTICE

Do not turn off the engine immediately after it has been subjected to a heavy load. Doing so may cause severe damage to the engine or turbo charger unit.

## NOTICE

To prevent damage to the vehicle:

- If the engine stalls while you are in motion, do not attempt to move the shift button to the P (Park) position.
  - If traffic and road conditions permit, you may put the shift button in the N (Neutral) position while the vehicle is still moving and press the Engine Start/Stop button in an attempt to restart the engine.
- Do not push or tow your vehicle to start the engine.

## 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 can't start the engine normally. Replace the fuse with a new one. If you are not able to replace the fuse, you can start the engine 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 and/or clutch pedal before starting the engine.



# *i* Information

If the smart key battery is weak or the smart key does not work correctly, you can start the engine by pressing the Engine Start/Stop button with the smart key in the direction of the picture above.

## **AUTOMATIC TRANSMISSION**



# **Automatic transmission operation**

The automatic transmission has eight forward speeds and one reverse speed.

The individual speeds are selected automatically in the D (Drive) position.

# **A** 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.

The indicator in the instrument cluster displays the shift button position when the ignition switch is in the ON position.

# **A** 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 ignition switch in the OFF position. Unexpected and sudden vehicle movement can occur if these precautions are not followed.
- Do not use the engine brake (shifting from a high gear to lower gear) rapidly 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.

## **A** 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.
- 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.

# **A** 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 8-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 fully. 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/COMFORT mode to SPORT or ECO mode. (if equipped)

For more information, 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.

# Stay in N (Neutral) position when vehicle is Off





If you want to keep the N (Neutral) position after the vehicle is OFF, do the following.

1. Deactivate the AUTO HOLD and release the parking brake when the ignition switch is ON.

- Push the N(Neutral) button by depressing the brake pedal. If the message ("Press and hold OK button to stay in Neutral when vehicle is Off") appears on the cluster LCD display, press and hold the OK button on the steering wheel for more than 1 second.
- Turn off the engine after the message ("Vehicle will stay in (N). Change gear to cancel") appears on the cluster LCD display.

In this situation, if you unfasten the driver's seat belt and open the driver's door within 3 minutes, the gear shifts to P (Park) position and the ignition switch is turned off.

# 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.

 Connect the battery cables from another vehicle or from a another battery to the jump-starting terminals inside the engine compartment.

# For more information refer to "Jump Starting" in chapter 6.

- 2. Release the parking brake with the Engine Start/Stop button in the ON position.
- 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 ignition switch in the LOCK/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.

## LCD display message

# Shifting conditions not met

The warning message appears on the LCD display, when engine RPM is too high, or when driving speed is too fast to shift the gear.

We recommend you decrease the engine speed or slow down before shifting the gear.

# Press brake pedal to change gear

The warning message appears on the LCD display, when the brake pedal is not depressed while shifting the gear.

We recommend you to depress the brake pedal and then shift the gear.

# Shift to P after stopping

The warning message appears on the LCD display, when the gear is shifted to P (Park) while the vehicle is moving.

Stop the vehicle before shifting to P (Park).

## PARK engaged

The warning message appears on the LCD display, when the gear is shifted to P (Park) while the vehicle is moving.

Stop the vehicle before shifting to P (Park).

## Press and hold OK button to stay in Neutral when vehicle is Off

The warning message appears on the LCD 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 LCD 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 LCD display. The gear stays in N(Neutral) position after turning off the engine.

## NEUTRAL engaged

The message appears on the LCD display, when the N (Neutral) position is engaged.

### Gear already selected

The message appears on the LCD display, when pushing the current shift button again.

### Shift button held down

The warning message appears on the LCD 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, we recommend you to have the vehicle inspected by an authorized HYUNDAI dealer.

# Shifter system malfunction

The warning message appears on the LCD display, when the transmission or the shift button does not properly operate in the P (Park) position. In this case, we recommend you to immediately have the vehicle inspected by an authorized HYUNDAI dealer.

## Check shift controls

The warning message appears on the LCD display, when there is a malfunction with transmission shift button.

In this case, we recommend you to immediately have the vehicle inspected by an authorized HYUNDAI dealer.

# **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.

- 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.
- 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.
- When driving in sports mode, slow down before shifting to a lower gear. Otherwise, the lower gear may not be engaged if the engine rpms are outside of the allowable range.

- 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.

## **A** WARNING

To reduce the risk of SERIOUS INJURY or DEATH:

- ALWAYS wear your seatbelt. 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.

### 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 shifter will operate when the vehicle speed is more than 10km/h.

Pull the [+] or [-] paddle shifter once to shift up or down one gear and the system changes from automatic mode to manual mode.

When the vehicle speed is lower than 10km/h, if you depress the accelerator pedal for more than 5 seconds, the system changes from manual mode to automatic mode.

# Information

If the [+] and [-] paddle shifters are pulled at the same time, gear shift may not occur.

### **BRAKING SYSTEM**

#### **Power brakes**

Your vehicle has power-assisted brakes that adjust automatically through normal usage.

If the engine is not running or is turned off while driving, the power assist for the brakes will not work. You can still stop your vehicle by applying greater force to the brake pedal than typical. The stopping distance, however, will be longer than with power brakes.

When the engine is not running, the reserve brake power is partially depleted each time the brake pedal is applied. Do not pump the brake pedal when the power assist has been interrupted.

Pump the brake pedal only when necessary to maintain steering control on slippery surfaces.

## **▲** 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 a long or steep hill, shift to a lower gear and avoid continuous application of the brakes. 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.

#### 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.

Note that some driving conditions or climates may cause a brake squeal when you first apply (or lightly apply) the brakes. This is normal and does not indicate a problem with your brakes.

## 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 the EPB (Electronic Parking Brake):

- 1. Depress the brake pedal.
- 2. Pull up the EPB switch.

Make sure the Parking Brake Warning Light comes on.

# **▲** 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.

## Releasing the parking brake



To release the EPB (Electronic Parking Brake), press the EPB switch in the following condition:

- Place the ignition switch in the ON position.
- · Depress the brake pedal.

Make sure the Parking Brake Warning Light goes off.

To release EPB (Electronic Parking Brake) automatically:

- Automatic transmission vehicle
  - 1. Start the engine.
  - 2. Fasten the driver's seat belt.
  - 3. Close the driver's door, engine hood and tailgate.
  - 4. Depress the accelerator pedal while the shift button is in R (Reverse) or D (Drive).

Make sure the Parking Brake Warning light goes off.

# *i* Information

- For your safety, you can engage the EPB even though the ignition switch is in the OFF position, 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, we recommend that the system be checked by an authorized HYUNDAI dealer.
- Do not drive your vehicle with the EPB applied. It may cause excessive brake pad and brake rotor wear.

EPB (Electronic Parking Brake) may be automatically applied when:

- It is requested by other systems
- The driver turns the engine off while Auto Hold is operating.

## Warning messages



To release EPB, fasten seatbelt, close door, hood and tailgate

- 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 tailgate 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.

## **A** 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, press the EPB switch, and set the ignition switch 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.



AUTO HOLD deactivating. Press brake pedal

When the conversion from Auto Hold to EPB is not working properly a warning will sound and a message will appear.



Parking brake automatically engaged

If the EPB is applied while Auto Hold is activated, a warning will sound and a message will appear.

# EPB malfunction indicator



If the EPB malfunction indicator remains on, comes on while driving, or does not come on when the ignition switch is changed to the ON position, this indicates that the EPB may have malfunctioned.

If this occurs, we recommend that the system be checked by an authorized HYUNDAI dealer.

The EPB malfunction indicator may illuminate when the ESC indicator comes on to indicate that the ESC is not working properly, but it does not indicate a malfunction of the EPB.

### NOTICE

- If the EPB warning light is still on, we recommend that the system be 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, the 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, we recommend that the system be checked by an authorized HYUNDAI dealer.

## 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.

# **A** WARNING

Do not operate the parking brake while the vehicle is moving except in an emergency situation. It could damage the brake system and lead to a severe 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, we recommend that the system be checked by an authorized HYUNDAI dealer.

When the EPB (Electronic Parking Brake) does not release

If the EPB does not release normally, we recommend that you contact an authorized HYUNDAI dealer by loading the vehicle on a flatbed tow truck and have the system checked.

# Parking brake warning light



Check the Parking Brake Warning Light by placing the ignition switch to the ON position (do not start the engine).

This light will be illuminated when the parking brake is applied with the ignition switch 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 engine is running, 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.

#### **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:



1. With the driver's door, engine hood and tailgate closed, depress the brake pedal and 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 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.
- If the vehicle is restarted using the cruise control toggle switch (RES+ or SET-) (if equipped) while Auto Hold and cruise control is operating, the Auto Hold will be released regardless of accelerator pedal operation. The AUTO HOLD indicator changes from green to white.

## **A** 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.

# **A** 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)
  - The tailgate is opened
  - The EPB is applied
- For your safety, the Auto Hold automatically switches to EPB when:
  - The driver's door is opened.
  - The engine hood is opened.
  - The tailgate is opened.
  - The vehicle stops for more than 10 minutes
  - The vehicle stands on a steep slope
  - The vehicle moves several times

In these cases, the 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, press foot brake pedal, check the surrounding area near your vehicle and release parking brake manually with the EPB switch.

• While operating Auto Hold, you may hear mechanical noise. However, it is normal operating noise.

## **A** 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, engine hood or tailgate open detection system, the Auto Hold may not work properly. We recommend that you contact an authorized HYUNDAI dealer.

## Warning messages



Parking brake automatically engaged

When the EPB is applied from Auto Hold, a warning will sound and a message will appear.



**AUTO HOLD deactivating. Press brake pedal** 

When the conversion from Auto Hold to EPB is not working properly a warning will sound and a message will appear.

## NOTICE

When this message is displayed, the Auto Hold and EPB may not operate. For your safety, depress the brake pedal.



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.



# **AUTO HOLD conditions not met.** Close door and hood.

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)**

## **A** 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. Drive your vehicle at reduced speeds during the above conditions.

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 to 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 depending on 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 ( ) will stay on for several seconds after the Ignition switch is placed 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. We recommend that you contact an authorized HYUNDAI dealer as soon as possible.

# **▲** WARNING

## NOTICE

Restart the engine. If the ABS warning light is off, then your ABS system is normal.

Otherwise, you may have a problem with your ABS system. We recommend that you 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 ( ) 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) (if equipped)



The Electronic Stability Control (ESC) 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 or too quickly 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 ignition switch is in the ON position, the ESC and the ESC OFF indicator lights illuminate for approximately three seconds and goes off, then the ESC is turned on.

### 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 the ESC activates, the engine may not respond to the accelerator as it does under routine conditions.
- If the Cruise Control was in use when the ESC activates, the Cruise Control automatically disengages.
   The Cruise Control can be reengaged when the road conditions allow. See "Cruise Control System" later in this chapter. (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

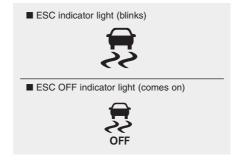
Press the ESC OFF button briefly. The ESC OFF indicator light and message "Traction Control disabled" will illuminate. In this state, the traction control function of ESC (engine management) is disabled, but the brake control function of ESC (braking management) still operates.

#### • State 2

Press and hold the ESC OFF button continuously for more than 3 seconds. The ESC OFF indicator light and 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 ignition switch is placed in the LOCK/OFF position when ESC is off, ESC remains off. Upon restarting the vehicle, the ESC will automatically turn on again.

## Indicator lights



When the ignition switch is in 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 we recommend that the vehicle be checked by an authorized HYUNDAI dealer as soon as possible.

The ESC OFF indicator light comes on when the ESC is turned off with the button.

# **▲** WARNING

When the ESC is blinking, this indicates the ESC is active:

Drive slowly and NEVER attempt to accelerate. NEVER turn the ESC off while the 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 the 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).

# **i** Information

Turning the ESC off does not affect ABS or standard brake system operation.

# **Vehicle Stability Management (VSM)**

The Vehicle Stability Management (VSM) is a function of the Electronic Stability Control (ESC) system. It helps ensure the vehicle stays stable when accelerating or braking suddenly on wet, slippery and rough roads where traction over the four tires can suddenly become uneven.

# **A** WARNING

Take the following precautions when using the Vehicle Stability Management (VSM):

- ALWAYS check the speed and the distance to the vehicle ahead. The VSM is not a substitute for safe driving practices.
- Never drive too fast for the road conditions. The 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

The VSM operates when:

- The Electronic Stability Control (ESC) is on.
- Vehicle speed is approximately above 22 km/h (13 mph) on curve roads.
- Vehicle speed is approximately above 10 km/h (6 mph) when the vehicle is braking on a two surface road.
  - \* The two surface road is made of surfaces which have different friction forces

## When operating

When you apply your brakes under conditions which may activate the 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.

# **i** 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 EPS (Electric power steering) warning light (⊗!) is on or blinks.

## **A** WARNING

If the ESC indicator light (\$\mathbb{T}\$) or EPS warning light (\$\oting{1}\$!) stays illuminated or blinks, your vehicle may have a malfunction with the VSM system. When the warning light illuminates we recommend that the vehicle be 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.

# Trailer stability assist (TSA) (if equipped)

Trailer stability assist is operated as vehicle stability control system. Trailer stability assist system has an effort to stabilize the vehicle and trailer when the trailer sways or oscillates. There are various reasons making vehicle sway and oscillate. Almost case it happens at high speed however, if the trailer is affected by crosswinds, buffeting, and improper overloading, it may be a risk of swaying.

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 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.

# Hill-Start Assist Control (HAC) (if equipped)

The Hill-Start Assist Control (HAC) 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 and releases the brake after 2 seconds or when the accelerator pedal is depressed.

# **A** WARNING

Always be ready to depress the accelerator pedal when starting off on a incline. The HAC activates only for approximately 2 seconds.

# i Information

- The HAC does not operate when the shift button is in P (Park) or N (Neutral).
- The HAC activates even when the ESC (Electronic Stability Control) is off. However, it does not activate, when the ESC does not operate normally.

# Downhill Brake Control (DBC) (if equipped)



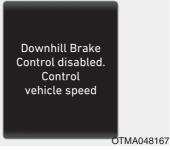
The Downhill Brake Control (DBC) feature assists the driver to descend down a steep hill without having to depress the brake pedal.

The system automatically applies the brakes to maintain the vehicle speed below a certain speed and allows the driver to concentrate on steering the vehicle down hill.

Press the button to activate the system and press the button again to deactivate.

# DBC operation

Mode	Indicator light	Description
Standby	Green light turns on	Press the DBC button when the vehicle speed is under 60 km/h (40 mph). The DBC system will turn on and enter the standby mode.  The system does not turn on if the vehicle speed is over 60 km/h (40 mph).
Activated	Green light blinks	In the standby mode, the DBC will activate under the following conditions:  - The hill is steep enough.  - The accelerator pedal is not depressed.  - The vehicle speed is within 4~40 km/h(2~25 mph) range (within 2.5~8 km/h(1.5~5 mph) when reversing).  Within the activation speed range, the driver can control the vehicle speed by depressing the brake/accelerator pedal.
Deactivated	Green light turns off	The DBC will turn off under the following conditions: - The DBC button is pressed again The vehicle speed is over 60 km/h (40 mph).
	Green light turns on (maintains standby mode)	The DBC will be deactivated but maintain the standby mode under the following conditions:  - The hill is not steep enough.  - The accelerator pedal is depressed over a constant force.  - The vehicle speed is between 40~60 km/h (25~40 mph).
System malfunction	Yellow light turns on	The yellow warning light illuminates when the system may have malfunctioned or may not work properly during the activation. In this case, the DBC system is deactivated. Have the system checked by an authorized HYUNDAI dealer as soon as possible.



# Downhill Brake Control disabled. Control vehicle speed

When the DBC system is not working properly this warning message will appear on the LCD display and you will hear a warning sound. If this occurs, control the vehicle speed by depressing the brake pedal.

# **A** WARNING

Always turn off the DBC on normal roads. The DBC might activate inadvertently from the standby mode when driving through speed bumps or making sharp curves.

# **i** Information

- Noise or vibration may occur from the brakes when the DBC is activated.
- The rear stop light comes on when DBC is activated.

### NOTICE

- The DBC may not deactivate on steep inclines even though the brake or accelerator pedal is depressed.
- The DBC system may not always maintain the vehicle speed at a certain speed.
- The DBC does not operate when:
  - The shift button is in P (Park).
  - The ESC is activated.

# **Good braking practices**

## **A** 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 place the ignition switch in the LOCK/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, taking care to keep the vehicle under control at all times. If the braking action does not return to normal, stop as soon as it is safe to do so. We recommend that you 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.

# FOUR WHEEL DRIVE (4WD) (IF EQUIPPED)



The Four Wheel Drive (4WD) System delivers engine power to all front and rear wheels for maximum traction.

4WD is useful when extra traction is required on slippery, 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.

#### **Multi Terrain Control**

Multi Terrain Control is a system that achieves optimal driving performance by controlling four-wheel drive, engine, transmission and braking by terrain conditions (snow, muddy and sandy road etc.).

#### **Multi Terrain Control mode**



If you press the "DRIVE/TERRAIN" mode button, the driving mode is changed from normal driving control to Multi Terrain Control. You can select SNOW, MUD or SAND mode by rotating the knob. If you press the "DRIVE/TERRAIN" mode button again, the driving mode is changed from Multi Terrain Control to normal driving control.

The driving mode will be set to normal driving control when the engine is restarted, if it is in Multi Terrain Control.

# **A** 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 offroad conditions such as sand, mud or water (see "Maintenance Under Severe Usage Conditions" in chapter 7).
- 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 4WD vehicle is towed by a flat bed tow truck.

# **4WD** operation

# Four Wheel Drive (4WD) mode selection

Transfer mode	Selection mode	Description
4WD AUTO (Normal driving)	-	In the 4WD AUTO mode, under normal operating conditions, the vehicle operates similar to conventional 2WD vehicles. If the system determines there is a need for four wheel drive, the engine's driving power is distributed to all four wheels automatically. Use this mode when driving on normal roads.  If you select the "Driving force distribution" in the cluster, Driving force distribution (4WD) state is displayed.
SNOW	COMPORT SOUTH SECOND SAND	In this mode, the vehicle can start stably by properly distributing the driving force of the vehicle on slippery roads such as snowy roads. And you can drive safely by suppressing wheel slip.
MUD	ODIVE SHOW SHOW SHOW SHOW SHOW SHOW SHOW SHOW	In this mode, you can drive safely by securing enough driving power at the initial start by appropriately distributing the driving force of the vehicle when driving on muddy road, unpaved road or uneven road.
SAND	SUMPT SAND	In this mode, you can drive safely by distributing the driving force of the vehicle properly when driving on smooth, dry sand or deep gravel and unpaved roads.

# **A** CAUTION

Be sure to maintain 4WD AUTO mode when driving on normal roads. If you drive with Multi Terrain Control mode on normal roads or curved roads, it may damage 4WD parts and cause vibration and noise. However the vibration and noise are normal, not indicating any malfunction. If you select the 4WD AUTO mode from the Multi Terrain Control mode, the vibration and noise disappear. And when you change to the 4WD AUTO mode from the Multi Terrain Control mode, a sensation may be felt as the driving power is delivered to the rear wheel.

## For safe 4WD 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

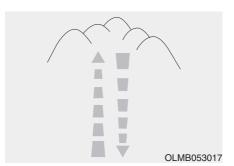
- Start off slowly by applying the accelerator pedal gently.
- Use snow tires or tire chains.
- Keep sufficient distance between your vehicle and the vehicle in front of you.
- Use engine braking during deceleration.
- Avoid speeding, rapid acceleration, sudden brake applications, and sharp turns to prevent skids.

## Driving in sand or mud

- Maintain slow and constant speed.
   For stable driving, smoothly depress the accelerator pedal.
- 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.

# **!** CAUTION

When the vehicle is stuck in snow, sand or mud, place a non-slip 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 4WD system.



## **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 slowly using engine braking while driving downhill.
  - Drive straight as possible.

## **A** WARNING

Exercise extreme caution driving up or down steep hills. The vehicle may flip depending on the grade, terrain and water/mud conditions.



### **A** 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 Control mode and drive under 8 km/h (5 mph).
- 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**

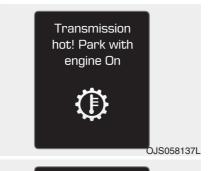
- Become familiar with the off-road conditions before driving.
- Always pay attention when driving off-road and avoid dangerous areas.
- Drive slowly when driving in heavy wind.
- Reduce vehicle speed when cornering. The center of gravity of 4WD vehicles is higher than conventional 2WD vehicles, making them more likely to roll over when you rapidly turn corners.
- Always hold the steering wheel firmly when you are driving off-road.

# **A** WARNING

Do not grab the inside of the steering wheel 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.

# LCD display message

# Transmission hot! Park with engine On





- Under certain conditions, such as repeated stop-and-go launches on steep grades, sudden take off or acceleration, or other harsh driving conditions (mud or sand road), the transmission temperatures will increase excessively. Finally the transmission could be overheated.
- If the vehicle continues to be driven and the automatic transmission temperatures reach the maximum temperature limit, the "Transmission hot! Park with engine On" warning will be displayed. When this occurs the automatic transmission is disabled until the automatic transmission cools to normal temperatures.
- The warning will display a time to wait for the transmission to cool.
- If this occurs, pull over to a safe location, stop the vehicle with the engine running, apply the brakes and shift the vehicle to P (Park), and allow the transmission to cool.
- When the message "Transmission cooled down. Resume driving" appears you can continue to drive your vehicle.
- When possible, drive the vehicle smoothly.

# **Emergency precautions**

#### **Tires**

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.

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 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.

#### **A** WARNING

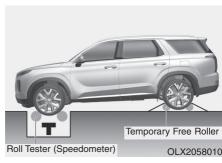
Never start or run the engine while a full-time 4WD vehicle is raised on a jack. The vehicle can slip or roll off of a jack causing serious injury or death to you or those nearby.

#### **Towing**

4WD vehicles must be towed with a wheel lift and dollies or flatbed equipment with all the wheels off the ground. For more information, refer to "Towing" in chapter 6.

## Dynamometer testing

A full-time 4WD vehicle must be tested on a special four wheel chassis dynamometer.



A full-time 4WD 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.
- Place the rear wheels on the temporary free roller as shown in the illustration.

# **A** 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.

### **A** 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

This 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. Specific design characteristics give them a higher center of gravity than ordinary vehicles. An advantage of the higher ground clearance is a better view of the road, which allows you to anticipate problems. They are not designed for cornering at the same speeds as conventional passenger vehicles, any more than low-slung sports cars are designed to perform satisfactorily in off-road conditions. Due to this risk, driver and passengers are strongly recommended to buckle their seat belts. In a rollover crash. an unbelted person is 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 roof rack with heavy cargo, and never modify your vehicle in any way.

## **A** 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.

### **A** 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 vour vehicle with any tire/wheel combination not recommended by HYUNDAI for off road driving, you should not use these tires for highway driving.

## **A** WARNING

Jacked vehicle

While a full-time 4WD 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.

## DRIVE MODE INTEGRATED CONTROL SYSTEM (2WD)



The drive mode may be selected according to the driver's preference or road condition.

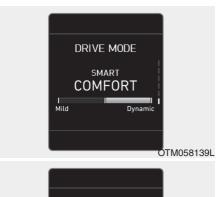
The mode changes whenever the DRIVE MODE button is rotated.

- SMART mode : SMART mode automatically adjusts the driving mode (ECO ↔ COMFORT ↔ SPORT) in accordance with the driver's driving habits.
- COMFORT mode: COMFORT mode provides soft driving and comfortable riding.
- SPORT mode : SPORT mode provides sporty but firm riding.
- ECO mode : ECO mode improves fuel efficiency for eco-friendly driving.

The driving mode will be set to COMFORT or ECO mode when the engine is restarted. if it is in SMART/COMFORT/SPORT mode. COMFORT mode will be set, when the engine is restarted.

If it is in Eco mode, Eco mode will be set when the engine is restarted.

#### SMART mode







SMART mode selects the SMART proper driving mode among ECO, COMFORT and SPORT by judging

the driver's driving habits (i.e. mild or dynamic) from the brake pedal depression or the steering wheel operation.

- Rotate the DRIVE MODE button to activate SMART mode. When SMART mode is activated, the indicator illuminates on the instrument cluster.
- The vehicle starts in SMART mode, when the engine was turned OFF in SMART mode.
- SMART mode automatically controls gear shifting patterns, engine torque, in accordance with the driver's driving habits.

# Information

- When you mildly drive the vehicle in SMART mode, the driving mode changes to ECO mode to improve fuel efficiency. However, the actual fuel efficiency may differ in accordance with your driving situations (i.e. upward/downward slope, vehicle deceleration/acceleration).
- When you dynamically drive the vehicle in SMART mode by abruptly decelerating or sharply curving, the driving mode changes to SPORT mode. However, it may adversely affect fuel economy.

# 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 changes from SMART ECO mode to SMART COMFORT mode after a certain period of time, when you sharply or repetitively depress the accelerator pedal.
- The driving mode automatically changes to SMART COMFORT mode with the same driving patterns, when the vehicle starts to drive on an upward slope of a certain angle. 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 or in SMART COMFORT mode.

### **Limitation of SMART mode**

The SMART mode may be limited in following situations. (The OFF indicator illuminates in those situations.)

- The driver manually moves the paddle shifter: It deactivates SMART mode. The vehicle drives, as the driver manually moves the paddle shifter.
- The cruise control is activated:
   The cruise system may deactivate the SMART mode. When a higher system is set by the cruise system, it starts to control vehicle speed and deactivates SMART mode. (SMART mode is not deactivated just by activing the cruise system.)
- 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.

#### SPORT mode

SPORT mode manages SPORT the driving dynamics by automatically adjusting the steering effort, and

the engine and transmission control logic for enhanced driver performance.

- When SPORT mode is selected by rotating the DRIVE MODE button, the SPORT indicator (orange color) will illuminate.
- Whenever the engine is restarted, the Drive Mode will revert back to COMFORT mode. If SPORT mode is desired, re-select SPORT mode from the DRIVE MODE button.

- 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
- Information

In SPORT mode, the fuel efficiency may decrease.

#### ECO mode

ECO

When the Drive Mode is set to ECO mode, the engine and transmission control logic are changed

to maximize fuel efficiency.

- When ECO mode is selected by rotating the DRIVE MODE button, the ECO indicator (green color) will illuminate.
- If the vehicle is set to ECO mode, when the engine is turned OFF and restarted the Drive Mode setting will remain in ECO mode.

# *i* Information

Fuel efficiency depends on the driver's driving habit and road condition.

#### 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.
- The engine noise may get louder.

The above situations are normal conditions when ECO mode is activated to improve fuel efficiency.

#### **Limitation of ECO mode operation:**

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 the 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 with the paddle shifter in manual mode:

The system will be limited according to the shift location.

#### DRIVE MODE INTEGRATED CONTROL SYSTEM (4WD)



The drive mode may be selected according to the driver's preference or road condition

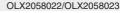
When the DRIVE MODE is activated by pressing the DRIVE/TERRAIN MODE button, turn the DRIVE MODE knob to desired mode.

If you want to use the terrain road mode, activate the TERRAIN MODE by pressing the DRIVE/TERRAIN MODE button and turn the knob.

For more information, refer to "Four Wheel Drive (4WD) system" later in this chapter.

#### DRIVE MODE









COMFORT  $\leftrightarrow$  ECO  $\leftrightarrow$  SPORT  $\leftrightarrow$ **SMART** 

- SMART mode : SMART mode automatically adjusts the driving mode (ECO ↔ COMFORT ↔ SPORT) in accordance with the driver's driving habits.
- COMFORT mode : COMFORT mode provides soft driving and comfortable riding.
- SPORT mode : SPORT mode provides sporty but firm riding.
- ECO mode : ECO mode improves fuel efficiency for eco-friendly driving.

The driving mode will be set to COM-FORT or ECO mode when the engine is restarted. if it is in SMART/ COMFORT/SPORT mode. COM-FORT mode will be set, when the engine is restarted.

If it is in Eco mode. Eco mode will be set when the engine is restarted.

#### SMART mode







SMART mode selects the SMART proper driving mode among ECO, COMFORT and SPORT by judging

the driver's driving habits (i.e. mild or dynamic) from the brake pedal depression or the steering wheel operation.

- Rotate the DRIVE/TERRAIN MODE button to activate SMART mode. When SMART mode is activated, the indicator illuminates on the instrument cluster.
- The vehicle starts in SMART mode, when the engine was turned OFF in SMART mode.
- SMART mode automatically controls gear shifting patterns, engine torque, in accordance with the driver's driving habits.

# *i* Information

- When you mildly drive the vehicle in SMART mode, the driving mode changes to ECO mode to improve fuel efficiency. However, the actual fuel efficiency may differ in accordance with your driving situations (i.e. upward/downward slope, vehicle deceleration/acceleration).
- When you dynamically drive the vehicle in SMART mode by abruptly decelerating or sharply curving. the driving mode changes to SPORT mode. However, it may adversely affect fuel economy.

# 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 changes from SMART ECO mode to SMART COMFORT mode after a certain period of time, when you sharply or repetitively depress the accelerator pedal.
- The driving mode automatically changes to SMART COMFORT mode with the same driving patterns, when the vehicle starts to drive on an upward slope of a certain angle. 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 or in SMART COMFORT mode.

#### **Limitation of SMART mode**

The SMART mode may be limited in following situations. (The OFF indicator illuminates in those situations.)

- The driver manually moves the paddle shifter: It deactivates SMART mode. The vehicle drives, as the driver manually moves the paddle shifter.
- The cruise control is activated:
   The cruise system may deactivate the SMART mode. When a higher system is set by the cruise system, it starts to control vehicle speed and deactivates SMART mode. (SMART mode is not deactivated just by activing the cruise system.)
- 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.

#### SPORT mode

SPORT mode manages **SPORT** the driving dynamics by automatically adjusting the steering effort, and

the engine and transmission control logic for enhanced driver performance.

- When SPORT mode is selected by rotating the DRIVE MODE button, the SPORT indicator (orange color) will illuminate.
- Whenever the engine is restarted, the Drive Mode will revert back to COMFORT mode. If SPORT mode is desired, re-select SPORT mode from the DRIVE/TERRAIN MODE button.

- 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
- Information

In SPORT mode, the fuel efficiency may decrease.

#### ECO mode

**ECO** 

When the Drive Mode is set to ECO mode, the engine and transmission control logic are changed

to maximize fuel efficiency.

- When ECO mode is selected by rotating the DRIVE/TERRAIN MODE button, the ECO indicator (green color) will illuminate.
- If the vehicle is set to ECO mode. when the engine is turned OFF and restarted the Drive Mode setting will remain in ECO mode.

# *i* Information

Fuel efficiency depends on the driver's driving habit and road condition.

#### 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.
- The engine noise may get louder.

The above situations are normal conditions when ECO mode is activated to improve fuel efficiency.

#### **Limitation of ECO mode operation:**

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 the 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 with the paddle shifter in manual mode.

The system will be limited according to the shift location.

# FORWARD COLLISION-AVOIDANCE ASSIST (FCA) SYSTEM - SENSOR FUSION TYPE (FRONT RADAR + FRONT CAMERA) (IF EQUIPPED)

The Forward Collision-Avoidance Assist (FCA) system is designed to help detect and monitor the vehicle ahead in the roadway through radar signals and camera recognition to warn the driver that a collision is imminent, and if necessary, apply emergency braking.

The FCA system detects the vehicle ahead in the roadway.

### **A** WARNING

Take the following precautions when using the Forward Collision-Avoidance Assist (FCA) system:

- This system is only a supplemental system and it is not intended to, nor does it replace the need for extreme care and attention of the driver. The sensing range and objects detectable by the sensors are limited. Pay attention to the road conditions at all times.
- NEVER drive too fast in accordance with the road conditions or while cornering.
- Always drive cautiously to prevent unexpected and sudden situations from occurring. FCA does not stop the vehicle completely and is not a collision avoidance system.

# System setting and activation

## System setting

- The driver can activate the FCA by placing the ignition switch to the ON position and by selecting:
  - "User Settings → Driver assistance → Forward safety"
  - If you select "Active assist", the FCA system activates. The FCA produces warning messages and warning alarms in accordance with the collision risk levels. Also, it controls the brakes in accordance with the collision risk levels.
  - If you select "Warning only", the FCA system activates and produces only warning alarms in accordance with the collision risk levels. You should control the brake directly because the FCA system do not control the brake.
  - If you select "Off", the FCA system deactivates,



The warning light illuminates on the LCD display, when you cancel the FCA system. The driver can

monitor the FCA ON/OFF status on the LCD display. Also, the warning light illuminates when the ESC (Electronic Stability Control) is turned off. If the warning light remains ON when the FCA is activated, we recommend that you have the system checked by an authorized HYUNDAI dealer.

The driver can select the initial warning activation time on the LCD display.

Go to the "User Settings  $\rightarrow$  Driver assistance  $\rightarrow$  Warning timing  $\rightarrow$  Normal/Later".

The options for the initial Forward Collision Warning includes the following:

- Normal:

When this condition is selected, the initial Forward Collision Warning is activated sensitively. If you feel the warning activates too early, set the Forward Collision Warning to 'Later'.

Even though, 'Normal' is selected if the front vehicle suddenly stops the initial warning activation time may not seem fast.

Later:

When this condition is selected, the initial Forward Collision Warning is activated later than normal. This setting reduces the amount of distance between the vehicle, ahead before the initial warning occurs.

Select 'Later' when traffic is light and when driving speed is slow.

# if you change the warning timing, the warning timing of other systems may change.

Always be aware of warning timing before changing the warning timing.

## Prerequisite for activation

The FCA gets ready to be activated, when the FCA is selected on the LCD display, and when the following prerequisites are satisfied.

- The ESC (Electronic Stability Control) is on.
- Vehicle speed is over 8 km/h (5 mph)). (The FCA is only activated within a certain speed range.)
- The system detects a vehicle in front, which may collide with your vehicle. (The FCA may not be activated or may sound a warning alarm in accordance with the driving situation or vehicle condition. If you select "Warning only", the FCA system activates and produces only warning alarms in accordance with the collision risk levels.)

# **A** WARNING

- Completely stop the vehicle on a safe location before operating the switch on the steering wheel to activate/ deactivate the FCA system.
- The FCA automatically activates upon placing the Engine Start/Stop button to the ON position. The driver can deactivate the FCA by canceling the system setting on the LCD display.
- The FCA automatically deactivates upon canceling the ESC (Electronic Stability Control).
   When the ESC is canceled, the FCA cannot be activated on the LCD display. The FCA warning light will illuminate which is normal.

# FCA warning message and system control

The FCA produces warning messages and warning alarms in accordance with the collision risk levels, such as abrupt stopping of the vehicle in front, insufficient braking distance. Also, it controls the brakes in accordance with the collision risk levels.

The driver can select the initial warning activation time in the User Settings in the LCD display. The options for the initial Forward Collision Warning include Normal or Late initial warning time.

If you select "Warning only", the FCA system activates and produces only warning alarms in accordance with the collision risk levels. You should control the brake directly because the FCA system do not control the brake.

# Collision Warning (First warning)



OLX2058026L

This warning message appears on the LCD display with a warning chime. Additionally, some vehicle system intervention occurs by the engine management system to help decelerate the vehicle.

- The Vehicle speed may slow down slightly.
- It will operate if the vehicle speed is greater than 10 km/h and less than or equal to 160 km/h on a forward vehicle.

(Depending on the condition of the vehicle ahead and the environment surrounding it, the possible maximum operating speed may be reduced.)

 If you select "Warning only", the FCA system activates and produces only warning alarms in accordance with the collision risk levels. You should control the brake directly because the FCA system do not control the brake.

# Emergency braking (Second warning)



OLX2058027L

This warning message appears on the LCD display with a warning chime.

Additionally, some vehicle system intervention occurs by the engine management system to help decelerate the vehicle.

 The brake control is maximized just before a collision, reducing impact when it strikes a forward vehicle.  It will operate if the vehicle speed is greater than 10 km/h and less than or equal to 80 km/h on a forward vehicle.

(Depending on the condition of the vehicle ahead and the environment surrounding it, the possible maximum operating speed may be reduced.)

 If you select "Warning only", the FCA system activates and produces only warning alarms in accordance with the collision risk levels. You should control the brake directly because the FCA system do not control the brake.

#### Brake operation

- In an urgent situation, the braking system enters into the ready status for prompt reaction against the driver's depressing the brake pedal.
- The FCA provides additional braking power for optimum braking performance, when the driver depresses the brake pedal.
- The braking control is automatically deactivated, when the driver sharply depresses the accelerator pedal, or when the driver abruptly operates the steering wheel.
- The FCA brake control is automatically canceled, when risk factors disappear.

# **A** CAUTION

The driver should always use extreme caution while operating the vehicle, whether or not there is a warning message or alarm from the FCA system.

## **A** WARNING

The braking control cannot completely stop the vehicle nor avoid all collisions. The driver should hold the responsibility to safely drive and control the vehicle.

# **A** WARNING

The FCA system logic operates within certain parameters, such as the distance from the vehicle ahead, the speed of the vehicle ahead, and the driver's vehicle speed. Certain conditions such as inclement weather and road conditions may affect the operation of the FCA system.

## **A** WARNING

Never deliberately drive dangerously to activate the system.

#### **FCA** sensor





In order for the FCA system to operate properly, always make sure the sensor cover or sensor is clean and free of dirt, snow, and debris.

Dirt, snow, or foreign substances on the lens may adversely affect the sensing performance of the sensor.

#### NOTICE

- Do not apply license plate molding or foreign objects such as a bumper sticker or a bumper guard near the radar sensor.
   Doing so may adversely affect the sensing performance of the radar.
- Always keep the radar sensor 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.

- Be careful not to apply unnecessary force on the radar sensor or sensor cover. If the sensor is forcibly moved out of proper alignment, the FCA system may not operate correctly. In this case, a warning message may not be displayed. Have the vehicle inspected by an authorized HYUNDAI dealer.
- If the front bumper becomes damaged in the area around the radar sensor, the FCA system may not operate properly. We recommend that you have the vehicle inspected by authorized HYUNDAI dealer.
- Use only genuine parts or the equivalent specified for your vehicle to repair or replace a damaged sensor or sensor cover. Do not apply paint to the sensor cover.

#### NOTICE

- NEVER install any accessories or stickers on the front windshield, nor tint the front windshield.
- NEVER locate any reflective objects (i.e. white paper, mirror) over the dashboard. Any light reflection may cause a malfunction of the system.
- Pay extreme caution to keep the camera out of water.
- NEVER disassemble the camera assembly, nor apply any impact on the camera assembly.
- Playing the vehicle audio system at high volume may offset the system warning sounds.

# *i* Information

We recommend that you have the system checked by an authorized HYUNDAI dealer when:

- The windshield glass is replaced.
- The radar sensor or cover gets damaged or replaced.

# Warning message and warning light



Forward Collision Avoidance Assist (FCA) system disabled.
Radar blocked

When the sensor cover is blocked with dirt, snow, or debris, the FCA system operation may stop temporarily. If this occurs, a warning message will appear on the LCD display.

Remove any dirt, snow, or debris and clean the radar sensor cover before operating the FCA system.

The system will operate normally when such dirt, snow or debris is removed.

The FCA may not properly operate in an area (e.g. open terrain), where any substances are not detected after turning ON the engine.

# **A** WARNING

The FCA system may not activate according to the road conditions, inclement weather, driving conditions or traffic conditions.



OLX2059101L

Forward Collision-Avoidance Assist (FCA) system disabled.

Camera obscured

When the sensor cover is blocked with dirt, snow, or debris, the FCA system operation may stop temporarily. If this occurs, a warning message will appear on the LCD display.

Remove any dirt, snow, or debris and clean the front camera before operating the FCA system.

The system will operate normally when such dirt, snow or debris is removed.

The FCA may not properly operate in an area (e.g. open terrain), where any substances are not detected after turning ON the engine.

# **System malfunction**



# **Check Forward Collision Avoidance Assist system**

- When the FCA is not working properly, the FCA warning light (♣) will illuminate and the warning message will appear for a few seconds. After the message disappears, the master warning light (♠) will illuminate. In this case, we recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.
- The FCA warning message may appear along with the illumination of the ESC (Electronic Stability Control) warning light.

## **A** WARNING

- The FCA is only a supplemental system for the driver's convenience. The driver should hold the responsibility to control the vehicle operation. Do not solely depend on the FCA system. Rather, maintain a safe braking distance, and, if necessary, depress the brake pedal to reduce the driving speed.
- In certain instances and under certain driving conditions, the FCA system may activate unintentionally. This initial warning message appears on the LCD display with a warning chime.

Also, in certain instances the front radar sensor or camera recognition system may not detect the vehicle ahead. The FCA system may not activate and the warning message will not be displayed.

- Even if there is any problem with the brake control function of the FCA system, the vehicle's basic braking performance will operate normally. However, brake control function for avoiding collision will not activate.
- If the vehicle in front stops suddenly, you may have less control of the brake system.
   Therefore, always keep a safe distance between your vehicle and the vehicle in front of you.
- The FCA system may activate during braking and the vehicle may stop suddenly shifting loose objects toward the passengers. Always keep loose objects secured.
- The FCA system may not activate if the driver applies the brake pedal to avoid a collision.
- The brake control may be insufficient, possibly causing a collision, if a vehicle in front abruptly stops. Always pay extreme caution.

- Occupants may get injured, if the vehicle abruptly stops by the activated FCA system. Pay extreme caution.
- The FCA system operates only to detect vehicles in front of the vehicle.

## **A** WARNING

- The FCA system does not operate when the vehicle is in reverse.
- The FCA system is not designed to detect other objects on the road such as animals.
- The FCA system does not detect vehicles in the opposite lane.
- The FCA system does not detect cross traffic vehicles that are approaching.

- The FCA system cannot detect the driver approaching the side view of a parked vehicle (for example on a dead end street.)
- The FCA system cannot detect the cross traffic cyclist that are approaching.

In these cases, you must maintain a safe braking distance, and if necessary, depress the brake pedal to reduce the driving speed in order to maintain a safe distance.

# **Limitations of the system**

The Forward Collision avoidance assist (FCA) system is designed to monitor the vehicle ahead in the roadway through radar signals and camera recognition to warn the driver that a collision is imminent, and if necessary, apply emergency braking.

In certain situations, the radar sensor or the camera may not be able to detect the vehicle ahead. In these cases, the FCA system may not operate normally. The driver must pay careful attention in the following situations where the FCA operation may be limited.

### Detecting vehicles (if equipped)

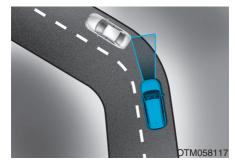
The sensor may be limited when:

- The radar sensor or camera is blocked with a foreign object or debris
- The camera lens is contaminated due to tinted, filmed or coated windshield, damaged glass, or stuck of foreign matter (sticker, bug, etc.) on the glass
- Inclement weather such as heavy rain or snow obscures the field of view of the radar sensor or camera
- There is interference by electromagnetic waves
- There is severe irregular reflection from the radar sensor
- The radar/camera sensor recognition is limited
- The vehicle in front is too small to be detected (for example a motor cycle or bicycle etc.)
- The vehicle in front is an oversize vehicle or trailer that is too big to be detected by the camera recognition system (for example a tractor trailer, etc.)

- The camera's field of view is not well illuminated (either too dark or too much reflection or too much backlight that obscures the field of view)
- The vehicle in front does not have their rear lights or their rear lights does not turned ON or their rear lights are located unusually.
- The outside brightness changes suddenly, for example when entering or exiting a tunnel
- When light coming from a street light or an oncoming vehicle is reflected on a wet road surface such as a puddle in the road
- The field of view in front is obstructed by sun glare or head light of oncoming vehicle.
- The windshield glass is fogged up; a clear view of the road is obstructed
- The vehicle in front is driving erratically
- The vehicle is on unpaved or uneven rough surfaces, or road with sudden gradient changes.

- The vehicle is driven near areas containing metal substances as a construction zone, railroad, etc.
- The vehicle drives inside a building, such as a basement parking lot
- The camera does not recognize the entire vehicle in front.
- The camera is damaged.
- The brightness outside is too low such as when the headlamps are not on at night or the vehicle is going through a tunnel.
- The shadow is on the road by a median strip, trees, etc.
- The vehicle drives through a tollgate.
- The windshield glass is fogged up; a clear view of the road is obstructed.
- The rear part of the vehicle in front is not normally visible. (the vehicle turns in other direction or the vehicle is overturned.)
- The adverse road conditions cause excessive vehicle vibrations while driving

- The sensor recognition changes suddenly when passing over a speed bump
- The vehicle in front is moving vertically to the driving direction
- The vehicle in front is stopped vertically
- The vehicle in front is driving towards your vehicle or reversing
- You are on a roundabout and the vehicle in front circles



- Driving on a curve

The performance of the FCA system may be limited when driving on a curved road.

On curved roads, the other vehicle on the same lane is not recognized and the FCA system's performance may be degraded. This may result in unnecessary alarm or braking or no alarm or braking when necessary.

Also, in certain instances the front radar sensor or camera recognition system may not detect the vehicle traveling on a curved road.

In these cases, the driver 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.



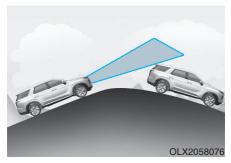
The FCA system may recognize a vehicle in the next lane when driving on a curved road.

In this case, the system may unnecessarily alarm the driver and apply the brake.

Always pay attention to road and driving conditions, while driving. If necessary, depress the brake pedal to reduce your driving speed in order to maintain a safe distance.

Also, when necessary depress the accelerator pedal to prevent the system from unnecessarily decelerating your vehicle.

Check to be sure that the road conditions permit safe operation of FCA.

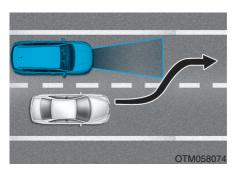


## - Driving on a slope

The performance of the FCA decreases while driving upward or downward on a slope, not recognizing the vehicle in front in the same lane. It may unnecessarily produce the warning message and the warning alarm, or it may not produce the warning message and the warning alarm at all.

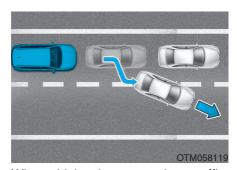
When the FCA suddenly recognizes the vehicle in front while passing over a slope, you may experience sharp deceleration.

Always keep your eyes forward while driving upward or downward on a slope, and, if necessary, depress the brake pedal to reduce your driving speed in order to maintain distance.

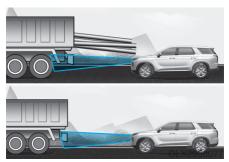


## - Changing lanes

When a vehicle changes lanes in front of you, the FCA system may not immediately detect the vehicle, especially if 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.



When driving in stop-and-go traffic, and a stopped vehicle in front of you merges out of the lane, the FCA system may not immediately detect the new vehicle that is now in front of you. 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.



- Detecting the vehicle in front of you 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. The FCA system 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, depress the brake pedal to reduce your driving speed in order to maintain distance.

# **⚠** WARNING

- Do not use the Forward Collision avoidance Assist (FCA) system when towing a vehicle. Application of the FCA system while towing may adversely affect the safety of your vehicle or the towing vehicle.
- Use extreme caution when 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.
- The FCA system is designed to detect and monitor the vehicle ahead in the roadway through radar signals and camera recognition. It is not designed to detect bicycles, motorcycles, or smaller wheeled objects such as luggage bags, shopping carts, or strollers.

- Never try to test the operation of the FCA system. Doing so may cause severe injury or death.
- If the front bumper, front glass, radar or camera have been replaced or repaired, we recommend that you have your vehicle inspected by an authorized HYUNDAI dealer.

# *i* Information

In some instances, the FCA system may be cancelled when subjected to electromagnetic interference.

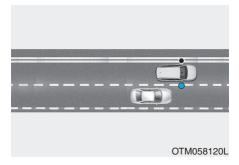
# BLIND-SPOT COLLISION WARNING (IF EQUIPPED)

# **System description**

# Blind-Spot Collision Warning (BCW)

The Blind-Spot Collision Warning System (BCW) uses radar sensors in the rear bumper to monitor and warn the driver of an approaching vehicle in the driver's blind spot area.

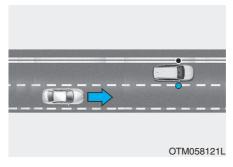
1) Blind-Spot Area



The blind spot detection range varies relative to vehicle speed.

Note that if your vehicle is traveling much faster than the vehicles around you, the warning will not occur.

2) Closing at high speed



BCW system will alert you when it detects a vehicle is approaching in an adjacent lane at a high rate of speed.

If the driver activates the turn signal when the system detects an oncoming vehicle, the system sounds an audible alert.

## **A** WARNING

- Always be aware of road conditions while driving and be alert for unexpected situations even though the Blind-Spot Collision Warning System is operating.
- The Blind-Spot Collision Warning System (BCW) is supplemental systems to assist you. Do not entirely rely on the systems. Always pay attention, while driving, for your safety.
- The Blind-Spot Collision Warning System (BCW) is not substitutes for proper and safe driving. Always drive safely and use caution when changing lanes or backing up the vehicle.

The Blind-Spot Collision Warning System (BCW) may not detect every object along-side the vehicle.

# System setting and activation

## System setting

- The driver can activate the system by placing the ignition switch to the ON position and by selecting "User Settings → Driver assistance → Blind-spot safety"
  - The BCW turns on and gets ready to be activated when 'Warning only' is selected. Then, if a vehicle approaches the driver's blind spot area a warning sounds.
  - The system is deactivated and the indicator on the BCW button is extinguished when 'Off' is selected.



- If you press BCW button while 'Warning only' is selected the indicator on the button extinguishes and the system deactivates.
- If you press BCW button while the system is cancelled the indicator on the button illuminates and the system activates. In this case, the system returns to the state before the engine turned off.

When the system is initially turned on and when the engine is turned off then on again while the system is in activation, the warning light will illuminate for 3 seconds on the outside rearview mirror.

- If the engine is turned off then on again, the system maintains the previous state.
- The driver can select the initial warning activation time in the User Settings in the LCD display by selecting "User Settings → Driver assistance → Warning timing"
- The options for the initial Blind-Spot Collision Warning includes the following:
  - Normal:

When this condition is selected, the initial Blind-Spot Collision Warning is activated normally. If this setting feels too sensitive change the option to 'later'.

The warning activation time may feel late if the side/rear vehicle abruptly accelerates.

- Later:

Select this warning activation time when the traffic is light and you are driving in a low speed. However, if you change the warning activation time, the warning activation time of vehicle's other system may also change. Check the warning activation time before changing it.

 The driver can select the warning volume of Blind-Spot Collision Warning in the User Settings in the LCD display by selecting "User Settings → Driver assistance → Warning volume → High/Medium/ Low/Off" the warning volume of vehicle's other system may also change.

# Operating Conditions

The system enters the ready status, when following conditions are satisfied:

The vehicle speed is above about 30 km/h (20 mph).

# Warning message and system control

# Blind-Spot Collision Warning (BCW) system



## First stage alert

If a vehicle is detected within the boundary of the system, a warning light will illuminate on the outside rearview mirror and the head up display (if equipped).

Once the detected vehicle is no longer within the blind spot area, the warning will turn off according to the driving conditions of the vehicle.



[A]: Warning sound

### Second stage alert

A warning chime to alert the driver will activate when:

- A vehicle has been detected in the blind spot area by the radar system AND.
- 2. The turn signal is applied (same side as where the vehicle is being detected).

When this alert is activated, the warning light on the outside rearview mirror and the head up display (if equipped) will also blink. And a warning chime will sound.

If you turn off the turn signal indicator, the second stage alert will be deactivated.

Once the detected vehicle is no longer within the blind spot area, the warning will turn off according to the driving conditions of the vehicle.

# **A** WARNING

- The warning light on the outside rearview mirror will illuminate whenever a vehicle is detected at the rear side by the system.
  - To avoid accidents, do not focus only on the warning light and neglect to see the surrounding of the vehicle.
- Drive safely even though the vehicle is equipped with a Blind-Spot Collision Warning System (BCW). Do not solely rely on the system but check your surrounding before changing lanes or backing the vehicle up.
- The system may not alert the driver in some conditions so always check your surroundings while driving.

# **A** CAUTION

- The driver should always use extreme caution while operating the vehicle, whether or not the warning light on the outside rearview mirror illuminates or there is a warning alarm.
- Playing the vehicle audio system at high volume may offset the Blind-Spot Collision Warning System warning sounds.
- The warning of the Blind-Spot Collision Warning System may not sound while other system's warning sounds.

# Detecting Sensor



#### Rear radar

The rear radars are the sensors inside the rear bumper for detecting the side/rear areas. Always keep the rear bumper clean for proper operation of the system.

# **!** CAUTION

- The system may not work properly when the bumper has been damaged, or if the rear bumper has been replaced or repaired.
- The sensing range differs somewhat according to the width of the road. When the road is narrow, the system may detect other vehicles in the next lane.
- The system may turn off due to strong electromagnetic waves.
- Always keep the sensors clean.
- NEVER arbitrarily disassemble the sensor component nor apply any impact on the sensor component.

- Be careful not to apply unnecessary force on the radar sensor or sensor cover. If the sensor is forcibly moved out of proper alignment, the system may not operate correctly. In this case, a warning message may not be displayed. Have the vehicle inspected by an authorized HYUNDAI dealer.
- Do not apply foreign objects such as a bumper sticker or a bumper guard near the radar sensor or apply paint to the sensor area. Doing so may adversely affect the performance of the sensor.



OIK057092L

Blind-Spot Collision Warning (BCW) system disabled. Radar blocked

- This warning message may appear when:
  - One or both of the sensors on the rear bumper is blocked by dirt or snow or a foreign object.
  - Driving in rural areas where the sensor does not detect another vehicle for an extended period of time.
  - When there is inclement weather such as heavy snow or rain.

If any of these conditions occur, the light on the BCW switch and the system will turn off automatically.

Turn off the BCW and RCCW/RCCA system (if equipped) when a trailer or carrier is installed.

- Press the BCW button (the indicator on the button extinguish)
- Deactivate the RCCW/RCCA system by deselecting

"User Settings → Driver assistance → Parking safety → Rear Cross Traffic Safety" (if equipped)

If you use BCW system, remove a trailer or carrier.

When the BCW canceled warning message is displayed in the cluster, check to make sure that the rear bumper is free from any dirt or snow in the areas where the sensor is located. Remove any dirt, snow, or foreign material that could interfere with the radar sensors.

After any dirt or debris is removed, the BCW should operate normally after about 10 minutes of driving the vehicle.

If the system still does not operate normally, we recommend that you have your vehicle inspected by an authorized HYUNDAI dealer.



**Check Blind-Spot Collision Warning (BCW) system** 

If there is a problem with the BCW system, a warning message will appear and the light on the switch will turn off. The system will turn off automatically. We recommend that you have your vehicle inspected by an authorized HYUNDAI dealer.

## Limitations of the system

The driver must be cautious in the below situations, because the system may not detect other vehicles or objects in certain circumstances.

- When a trailer or carrier is installed.
- The vehicle drives in inclement weather such as heavy rain or snow.
- The sensor is polluted with rain, snow, mud, etc.
- The rear bumper where the sensor is located is covered with a foreign object such as a bumper sticker, a bumper guard, a bike rack, etc.
- The rear bumper is damaged, or the sensor is out of the original default position.
- The vehicle height gets lower or higher due to heavy loading in a trunk, abnormal tire pressure, etc.
- When the temperature of the rear bumper is high.
- When the sensors are blocked by other vehicles, walls or parking-lot pillars.

- The vehicle drives on a curved road.
- The vehicle drives through a tollgate.
- The road pavement (or the peripheral ground) abnormally contains metallic components (i.e. possibly due to subway construction).
- There is a fixed object near the vehicle, such as a guardrail.
- While going down or up a steep road where the height of the lane is different.
- Driving on a narrow road where trees or grass or overgrown.
- Driving in rural areas where the sensor does not detect another vehicle or structure for an extended period of time.
- Driving on a wet road.
- Driving on a road where the guardrail or wall is in double structure.
- A big vehicle is near such as a bus or truck.
- When the other vehicle approaches very close.

- When the other vehicle passes at a very fast speed.
- While changing lanes.
- If the vehicle has started at the same time as the vehicle next to you and has accelerated.
- When 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 motorcycle or bicycle is near.
- A flat trailer is near.
- If there are small objects in the detecting area such as a shopping cart or a baby stroller.
- If there is a low height vehicle such as a sports car.
- The brake pedal is depressed.
- ESC (Electronic Stability Control) is activated.
- ESC (Electronic Stability Control) malfunctions.
- The tire pressure is low or a tire is damaged.
- · The brake is reworked.

- The vehicle abruptly changes driving direction.
- The vehicle makes sharp lane changes.
- The vehicle sharply stops.
- Temperature is extremely low around the vehicle.
- The vehicle severely vibrates while driving over a bumpy road, uneven/bumpy road, or concrete patch.
- The vehicle drives on a slippery surface due to snow, water puddle, or ice.



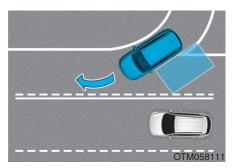
· Driving on a curve

The BCW system may not operate properly when driving on a curved road. In certain instances the system may not detect the vehicle in the next lane.

Always pay attention to road and driving conditions, while driving.



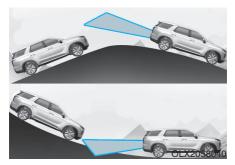
The BCW system may not operate properly when driving on a curved road. In certain instances the system may recognize a vehicle in the same lane.



 Driving where the road is merging/dividing

The BCW system may not operate properly when driving where the road is merging/dividing. In certain instances the system may not detect the vehicle in the next lane.

Always pay attention to road and driving conditions, while driving.

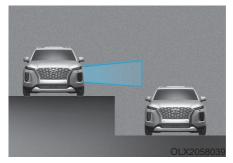


Driving on a slope

The may not operate properly when driving on a slope. In certain instances the system may not detect the vehicle in the next lane.

Also, in certain instances the system may wrongly recognize the ground or structures.

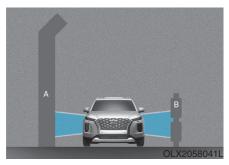
Always pay attention to road and driving conditions, while driving.



Driving where the heights of the lanes are different

The may not operate properly when driving where the heights of the lanes are different.

In certain instances, the system may not detect the vehicle on a road with different lane heights (underpass joining section, grade separated intersections, etc.).



[A] : noise barrier, [B] : guardrail

 Driving where there is a structure beside the road

The may not operate properly when driving where there is structure beside the road.

In certain instances, the system may wrongly recognize the structures (noise barriers, guardrail, double guardrail, median strip, bollard, street light, road sign, tunnel wall, etc.) beside the road.

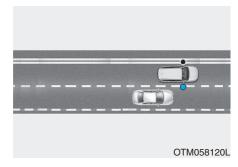
# BLIND-SPOT COLLISION WARNING/BLIND-SPOT COLLISION-AVOIDANCE ASSIST (IF EQUIPPED)

# **System description**

# Blind-Spot Collision Warning (BCW)

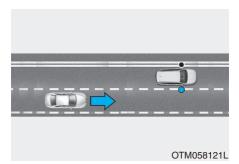
The Blind-Spot Collision Warning (BCW) system uses radar sensors in the rear bumper to monitor and warn the driver of an approaching vehicle in the driver's blind spot area.

1) Blind-Spot Area



The blind spot detection range varies relative to vehicle speed.

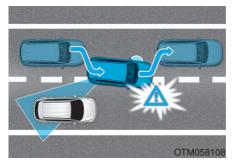
Note that if your vehicle is traveling much faster than the vehicles around you, the warning will not occur. 2) Closing at high speed



BCW system will alert you when it detects a vehicle is approaching in an adjacent lane at a high rate of speed. If the driver activates the turn signal when the system detects an oncoming vehicle, the system

sounds an audible alert.

Blind-Spot Collision-Avoidance Assist (BCA)



The Blind-Spot Collision-Avoidance Assist (BCA) system detects the front lane through the camera installed on the upper front windshield and detects the side/rear areas through radar sensors.

The Blind-Spot Collision-Avoidance Assist system may activate the Electronic Stability Control (ESC) in accordance with a colliding possibility with an approaching vehicle while changing lanes. It is to lower the colliding risk or mitigate the colliding damage.

# **A** WARNING

- Always be aware of road conditions while driving and be alert for unexpected situations even though the Blind-Spot Collision Warning system and Blind-Spot Collision-Avoidance Assist system are operating.
- The Blind-Spot Collision Warning (BCW) system and Blind-Spot Collision-Avoidance Assist (BCA) system are supplemental systems to assist you. Do not entirely rely on the systems. Always pay attention, while driving, for your safety.
- The Blind-Spot Collision Warning (BCW) system and Blind-Spot Collision-Avoidance Assist (BCA) system are not substitutes for proper and safe driving. Always drive safely and use caution when changing lanes or backing up the vehicle.

The Blind-Spot Collision Warning (BCW) system and Blind-Spot Collision-Avoidance Assist (BCA) system may not detect every object alongside the vehicle.

# System setting and activation

## System setting

- The driver can activate the system by placing the ignition switch to the ON position and by selecting 'User Settings → Driver assistance → Blind-spot safety'
  - The BCA and BCW turn on and get ready to be activated when 'Active assist' is selected. Then, if a vehicle approaches the driver's blind spot area a warning sounds or braking power is applied.
  - The BCW turns on and gets ready to be activated when 'Warning only' is selected. Then, if a vehicle approaches the driver's blind spot area a warning sounds.
  - The system is deactivated and the indicator on the BCW/BCA button is extinguished when 'Off' is selected.



- If you press the BCW/BCA button while 'Active assist' or 'Warning only' is selected the indicator on the button will turn off and the system will deactivate.
- If you press the BCW/BCA button while the system is cancelled the indicator on the button illuminates and the system activates. In this case, the system returns to the state before the engine was turned off.

When the system is initially turned on and when the engine is turned off then on again while the system is in activation, the warning light will illuminate for 3 seconds on the outside rearview mirror.

- If the engine is turned off then on again, the system maintains the previous state.
- The driver can select the initial warning activation time in the User Settings in the LCD display by selecting 'User Settings → Driver assistance → Warning timing'.
- The options for the initial Blind-Spot Collision Warning includes the following:
  - Normal:

When this condition is selected, the initial Blind-Spot Collision Warning is activated normally. If this setting feels sensitive change the option to 'later'.

The warning activation time may feel late if a vehicle at the side or rear abruptly accelerates.

- Later:

Select this warning activation time when the traffic is light and you are driving in a low speed.

# *i* Information

If you change the warning timing, the warning time of other systems may change. Always be aware before changing the warning timing.

 The driver can select the warning volume of Blind-Spot Collision Warning in the User Settings in the LCD display by selecting 'User Settings → Driver assistance → Warning volume → High/Medium/ Low'.

For more details, refer to "LCD Display" in chapter 3.

# Information

If you change the warning volume, the warning volume of other systems may change. Always be aware before changing the warning volume.

## **Operating Conditions**

The system enters the ready status, when 'Active assist' or 'Warning only' is selected and the following conditions are satisfied:

- Active Assist
- The Blind-Spot Collision-Avoidance Assist system will activate when:
  - Vehicle speed is between 60 km/h and 180 km/h (40 mph ~ 112 mph).
  - The system detects both of the lane lines.
  - An approaching vehicle is detected next to or behind your vehicle.
- 2) The Blind-Spot Collision Warning system will activate when:

The vehicle speed is above about 30 km/h (20 mph).

- Warning Only
- 1) The Blind-Spot Collision Warning System will activate when:
  - The vehicle speed is above 30 km/h (20 mph).
- \* The Blind-Spot Collision-Avoidance Assist system is not activated.

# Warning and system control

# Blind-Spot Collision Warning (BCW) system



First stage alert

If a vehicle is detected within the boundary of the system, a warning light will illuminate on the outside rearview mirror and the head up display (if equipped).

Once the detected vehicle is no longer within the blind spot area, the warning will turn off according to the driving conditions of the vehicle.



[A]: Warning sound

Second stage alert

A warning chime to alert the driver will activate when:

- A vehicle has been detected in the blind spot area by the radar system AND.
- The turn signal is applied (same side as where the vehicle is being detected).

When this alert is activated, the warning light on the outside rearview mirror and the head up display (if equipped) will also blink. And a warning chime will sound.

If you turn off the turn signal indicator, the second stage alert will be deactivated.

Once the detected vehicle is no longer within the blind spot area, the warning will turn off according to the driving conditions of the vehicle.

# **A** WARNING

- The warning light on the outside rearview mirror will illuminate whenever a vehicle is detected at the rear side by the system.
  - To avoid accidents, do not focus only on the warning light and neglect to see the surrounding of the vehicle.
- Drive safely even though the vehicle is equipped with a Blind-Spot Collision Warning (BCW) system. Do not solely rely on the system but check your surrounding before changing lanes or backing the vehicle up.
- The system may not alert the driver in some conditions so always check your surroundings while driving.

# **A** CAUTION

- The driver should always use extreme caution while operating the vehicle, whether or not the warning light on the outside rearview mirror illuminates or there is a warning alarm.
- Playing the vehicle audio system at high volume may offset the Blind-Spot Collision Warning system warning sounds.
- The warning of the Blind-Spot Collision Warning System may not sound while other system's warning sounds.

## Blind-Spot Collision-Avoidance Assist (BCA) system



OLX2059104L/OLX2059103L

The Blind-Spot Collision-Avoidance Assist (BCA) system may apply braking power, when an approaching vehicle is detected within a certain distance next to or behind your vehicle.

It gently applies braking power on the tire, which is located in the opposite side of the possibly-colliding point. The instrument cluster will inform the driver of the system activation. Blind-Spot Collision-Avoidance Assist (BCA) system is automatically deactivated when:

- The vehicle drives a certain distance away
- The vehicle direction is changed against the possible-colliding point
- The steering wheel is abruptly moved
- The brake pedal is depressed
- After a certain period of time

The driver should drive the vehicle in the middle of the vehicle lanes to keep the system in the ready status. When the vehicle drives too close to one side of the vehicle lanes, the system may not properly operate.

In addition, the system may not properly control your vehicle in accordance with driving situations. Thus, always pay close attention to road situations.

## **A** WARNING

- The driver is responsible for accurate steering.
- Do not unnecessarily operate the steering wheel, when the Blind-Spot Collision-Avoidance Assist system is in operation.
- Always pay extreme caution while driving. The Blind-Spot Collision-Avoidance Assist system may not operate or unnecessarily operate in accordance with your driving situations.
- The Blind-Spot Collision-Avoidance Assist system is not a substitute for safe driving practices, but a convenience function only. It is the responsibility of the driver to always drive cautiously to prevent unexpected and sudden situations from occurring. Pay attention to the road conditions at all times.

# Detecting Sensor (Camera and Radar)





#### Front camera

The front camera is a sensor detecting the lane. If the sensor is covered with snow, rain or foreign substance, the system may temporarily be cancelled and not work properly until the system is cancelled due to the degradation of the sensor's detection performance. Always keep the sensor clean.

\* Refer to Lane Keeping Assist (LKA) System for cautions for the front camera sensor.

#### Rear radar

The rear radars are the sensors inside the rear bumper for detecting the side and rear areas. Always keep the rear bumper clean for proper operation of the system.

# **A** CAUTION

- The system may not work properly when the bumper has been damaged, or if the rear bumper has been replaced or repaired.
- The sensing range differs somewhat according to the width of the road. When the road is narrow, the system may detect other vehicles in the next lane.
- The system may turn off due to strong electromagnetic waves.
- Always keep the sensors clean.
- NEVER arbitrarily disassemble the sensor component nor apply any impact on the sensor component.

- Be careful not to apply unnecessary force on the radar sensor or sensor cover. If the sensor is forcibly moved out of proper alignment, the system may not operate correctly. In this case, a warning message may not be displayed. Have the vehicle inspected by an authorized HYUNDAI dealer.
- Do not apply foreign objects such as a bumper sticker or a bumper guard near the radar sensor or apply paint to the sensor area. Doing so may adversely affect the performance of the sensor.
- NEVER install any accessories or stickers on the front windshield, nor tint the front windshield.
- Pay extreme caution to keep the camera sensor out of water.
- NEVER locate any reflective objects (i.e. white paper, mirror) over the crash pad. Any light reflection may cause a malfunction of the system.

### Warning message



# Blind-Spot Collision Warning (BCW) system disabled. Radar blocked

This warning message may appear when:

- One or both of the sensors on the rear bumper is blocked by dirt or snow or a foreign object.
- Driving in rural areas where the sensor does not detect another vehicle for an extended period of time.
- When there is inclement weather such as heavy snow or rain.

If any of these conditions occur, the light on the BCW/BCA switch and the system will turn off automatically.

When the BCW canceled warning message is displayed in the cluster, check to make sure that the rear bumper is free from any dirt or snow in the areas where the sensor is located. Remove any dirt, snow, or foreign material that could interfere with the radar sensors.

After any dirt or debris is removed, the system should operate normally after about 10 minutes of driving the vehicle.

If the system still does not operate normally, we recommend that you have your vehicle inspected by an authorized HYUNDAI dealer.

# **i** Information

Turn off the BCW, BCA and RCCW system (if equipped) when a trailer or carrier is installed.

- Press the BCW/BCA button (the indicator on the button will turn off)
- Deactivate the RCCW system by deselecting
  - 'User Settings → Driver assistance → Parking safety → Rear Cross Traffic Safety' (if equipped)



# **Check Blind-Spot Collision Warning (BCW) system**

If there is a problem with the BCW system, a warning message will appear and the light on the switch will turn off. The system will turn off automatically. BCA will not operate also if the BCW system turns off due to malfunction. We recommend that you have your vehicle inspected by an authorized HYUNDAI dealer.



## **Check Blind-Spot Collision-Avoidance Assist (BCA) system**

If there is a problem with the BCA system, a warning message will appear. The system will turn off automatically. BCW will still operate even if the BCA system turns off due to malfunction. We recommend that you have your vehicle inspected by an authorized HYUNDAI dealer to use BCA system.

## Limitations of the system

The driver must be cautious in the below situations, because the system may not detect other vehicles or objects in certain circumstances.

- When a trailer or carrier is installed.
- The vehicle drives in inclement weather such as heavy rain or snow.
- The sensor is polluted with rain, snow, mud, etc.
- The rear bumper where the sensor is located is covered with a foreign object such as a bumper sticker, a bumper guard, a bike rack, etc.
- The rear bumper is damaged, or the sensor is out of the original default position.
- The vehicle height gets lower or higher due to heavy loading in a trunk, abnormal tire pressure, etc.
- When the temperature of the rear bumper is high.
- When the sensors are blocked by other vehicles, walls or parking-lot pillars.

- The vehicle drives on a curved road.
- The vehicle drives through a tollgate.
- The road pavement (or the peripheral ground) abnormally contains metallic components (i.e. possibly due to subway construction).
- There is a fixed object near the vehicle, such as a guardrail.
- While going down or up a steep road where the height of the lane is different.
- Driving on a narrow road where trees or grass or overgrown.
- Driving in rural areas where the sensor does not detect another vehicle or structure for an extended period of time.
- Driving on a wet road.
- Driving on a road where the guardrail or wall is in double structure.
- A big vehicle is near such as a bus or truck.
- When the other vehicle approaches very close.

- When the other vehicle passes at a very fast speed.
- While changing lanes.
- If the vehicle has started at the same time as the vehicle next to you and has accelerated.
- When 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 motorcycle or bicycle is near.
- A flat trailer is near.
- If there are small objects in the detecting area such as a shopping cart or a baby stroller.
- If there is a low height vehicle such as a sports car.
- The brake pedal is depressed.
- ESC (Electronic Stability Control) is activated.
- ESC (Electronic Stability Control) malfunctions.
- The tire pressure is low or a tire is damaged.
- The brake is reworked.

- The vehicle abruptly changes driving direction.
- The vehicle makes sharp lane changes.
- The vehicle sharply stops.
- Temperature is extremely low around the vehicle.
- The vehicle severely vibrates while driving over a bumpy road, uneven/bumpy road, or concrete patch.
- The vehicle drives on a slippery surface due to snow, water puddle, or ice.
- The Lane Keeping Assist (LKA) or Lane Departure Warning (LDW) do not operate normally. (if equipped)
   For more information refer to "Lane Keeping Assist (LKA) system" in this chapter.



## · Driving on a curve

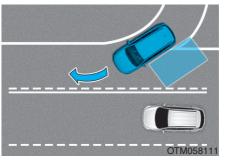
The BCW and BCA systems may not operate properly when driving on a curved road. In certain instances, the system may not detect the vehicle in the next lane.

Always pay attention to road and driving conditions, while driving.



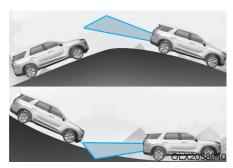
The BCW and BCA systems may not operate properly when driving on a curved road. In certain instances, the system may recognize a vehicle in the same lane.

Always pay attention to road and driving conditions, while driving.



 Driving where the road is merging/dividing

The BCW and BCA systems may not operate properly when driving where the road is merging/dividing. In certain instances, the system may not detect the vehicle in the next lane.

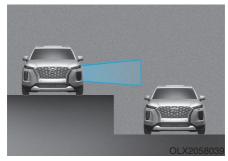


## Driving on a slope

The BCW and BCA systems may not operate properly when driving on a slope. In certain instances the system may not detect the vehicle in the next lane.

Also, in certain instances, the system may wrongly recognize the ground or structures.

Always pay attention to road and driving conditions, while driving.



Driving where the heights of the lanes are different

The BCW and BCA systems may not operate properly when driving where the heights of the lanes are different. In certain instances, the system may not detect the vehicle on a road with different lane heights (i.e. underpass joining section, grade separated intersections, etc.).

Always pay attention to road and driving conditions, while driving.



[A] : noise barrier, [B] : guardrail

 Driving where there is a structure beside the road

The BCW and BCA systems may not operate properly when driving where there is structure beside the road.

In certain instances, the system may wrongly recognize the structures (i.e. noise barriers, guardrail, double guardrail, median strip, bollard, street light, road sign, tunnel wall, etc.) beside the road.

# DECLARATION OF CONFORMITY (IF EQUIPPED)

# The radio frequency components (Rear Corner Radar) complies (If equipped):

#### ■ For Taiwan

電信法第 48 條,低功率電波輻射性電機管理辦法

第十二條

經型式認證合格之低功率射頻電機,非經許可,公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。 第十四條

低功率射頻電機之使用不得影響飛航安全及 干擾合法通信;經發現有干擾現象時,應立 即停用,並改善至無干擾時方得繼續使用。 前項合法通信,指依電信法規定作業之無線 電通信。低功率射頻電機須忍受合法通信或 工學及醫療用電波輻射性電機設備之 干擾。

#### Article 12

Without permission, any company, firm o ruser shall not alter the frequency, incr ease the power, or change the character istics and functions of the original design of the certified lower power frequency electric machinery.

Article 14

The application of low power frequency electric machineries shall not affect the navigation safety nor interface a legal communication, if an interference is found, the service will be suspended until improvement is made and the interference no longer exist.

OANATEL005

■ For Indonesia

54473/SDPPI/2018 6051

■ For Malaysia



■ For Singapore

Complies with
IMDA Standards
DA 103238

OANATEL008

■ For Vietnam



■ For Brazil



Este equipamento não tem direito à prot eção contra interferência prejudicial enão pode causar interferênci a em sistemas devidamente autorizados

OANATEL011

#### ■ For Mexico

Radar de corto alcance RS4 Hella KGaA Hueck & Co IFETEL: RLVHERS17-0286

"La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada."

OANATEL012

### ■ For Japan

This device is granted pursuant to the Japanese Radio Law under the grant ID n°: 204-750001 This device should not be modified (otherwise the granted designation number will become invalid)

本製品は、電波法に基づく特定無線設備の技術基準適合証明などを受けております。認証番号: 204-750001 本製品の改造は禁止されています。 (適合証明番号などが無効となります。)

OANATEL041

#### ■ For Ukraine



Цим HELLA GmbH & Co. KGaA заявляє, що радіотехнічне обладнання типу RS 4 відповідає Технічному регламенту радіотехнічного обладнання та Дирек тиві 2014/53/ЄС.

Повний текст декларації про відповід ність доступний за адресою: www.hell a.com/hyundai

Частотний діапазон: 24,05 – 24,25 ГГц Потужність передачі: 20 дБм (макс.) Е IRP

#### ■ For Jordan

TRC No. TRC/LPD/2017/63

OANATEL014

#### ■ For Oman

OMAN - TRA TRA/TA-R/3957/17 D080134

OANATEL 015

#### ■ For UAE

TRA
Registered No:
ER53878/17
Dealer No:
DA44932/15

OANATEL016

■ For Botswana

# BTA REGISTERED No :

BOCRA/TA/2018/3372

OANATEL017

#### ■ For Ghana

NCA Approved: 1R3-1M-7E1-0B7

OANATEL018

### ■ For Zambia



0, ....

■ For Jamaica

This product contains a Type Approved Module by Jamaica: SMA – "RS4"

OANATEL020

# ■ For Paraguay



■ For Uzbekistan



■ For Mozambique

Approval No: N 1/R/SRA/2017 HELLA RS4

OANATEL023

# REAR CROSS-TRAFFIC COLLISION WARNING (RCCW) / REAR CROSS-TRAFFIC COLLISION-AVOIDANCE ASSIST (RCCA) (IF EQUIPPED)

# **System Description**

## Rear Cross-Traffic Collision Warning (RCCW) system



OTM058092

The Rear Cross-Traffic Collision Warning (RCCW) system uses radar sensors to monitor the approaching cross traffic from the left and right side of the vehicle when your vehicle is in reverse.

The blind spot detection range varies relative to the approaching vehicle speed.

## Rear Cross-Traffic Collision-Avoidance Assist (RCCA) system

The Rear Cross-Traffic Collision-Avoidance Assist (RCCA) system monitors approaching cross traffic from the left and right side of the vehicle when your vehicle is approaching.

The Rear Cross-Traffic Collision-Avoidance Assist (RCCA) system may activate the Electronic Stability Control (ESC) in accordance with a colliding possibility with an approaching vehicle. It is to lower the colliding risk or mitigate the colliding damage.

## **A** WARNING

Always be aware of road conditions while driving and be alert for unexpected situations even though the Rear Cross-Traffic Collision Warning system and Rear Cross-Traffic Collision-Avoidance Assist system are operating.

- The Rear Cross-Traffic Collision Warning system and Rear Cross-Traffic Collision-Avoidance Assist system are supplemental systems to assist you. Do not entirely rely on the systems. Always pay attention, while driving, for your safety.
- The Rear Cross-Traffic Collision Warning system and Rear Cross-Traffic Collision-Avoidance Assist system are not substitutes for proper and safe driving. Always drive safely and use caution when backing up the vehicle.

# System setting and activation

## System setting

- The driver can activate the systems by placing the ignition switch to the ON position and by selecting "User Settings → Driver assistance → Parking safety → Rear Cross Traffic Safety". The RCCA and RCCW turn on and get ready to be activated when 'Rear Cross-Traffic safety' is selected.
- When the engine is turned off then on again, the systems are always ready to be activated.
- When the system is initially turned on and when the engine is turned off then on again, the warning light will illuminate for 3 seconds on the outside rearview mirror.

The driver can select the initial warning activation time in the User Settings in the LCD display by selecting 'User Settings → Driver assistance → Warning timing'. The options for the initial Rear Cross-Traffic Collision Warning includes the following:

#### - Normal:

When this condition is selected, the initial Rear Cross-Traffic Collision Warning is activated normally. If this setting feels sensitive, change the option to 'Later'.

The warning activation time may feel late if the a vehicle at the side or rear abruptly accelerates.

#### - Later:

Select this warning activation time when the traffic is light and you are driving in a low speed.

# Information

If you change the warning timing, the warning time of other systems may change. Always be aware before changing the warning timing.

The driver can select the warning volume of the Rear Cross-Traffic Collision Warning by selecting 'User Settings → Driver assistance → Warning volume → High/Medium/Low/Off'.

- \* Even if "Off" is selected, the warning alarm of below systems sounds small.
  - Parking Distance Warning system
  - Forward Collision-Avoidance Assist system
  - Safe Exit Assist system

# *i* Information

If you change the warning volume, the warning volume of other systems may change. Always be aware before changing the warning volume.

For more details, refer to "LCD Display" in chapter 3.

## Operating conditions

To operate:

Go to the "User Settings  $\rightarrow$  Driver assistance  $\rightarrow$  Parking safety  $\rightarrow$  Rear Cross Traffic Safety".on the LCD display. The system will turn on and standby to activate.

The system will activate when vehicle speed is below 10 km/h (7 mph) and with the shift button in R (Reverse).

\* The system will not activate when the vehicle speed exceeds 10 km/h (7 mph). The system will activate again when the speed is below 8 km/h (5 mph). The system's detecting range is approximately  $0.5 \text{ m} \sim 20 \text{ m}$  (1 ft  $\sim 65 \text{ ft}$ ). An approaching vehicle will be detected if their vehicle speed is within 8 km/h  $\sim 36 \text{ km/h}$  (5  $\sim 22.5 \text{ mph}$ ).

Note that the detecting range and operating speed may vary under certain conditions. As always, use caution and pay close attention to your surroundings when backing up your vehicle.

## Warning and system control

## Rear Cross-Traffic Collision Warning (RCCW) system





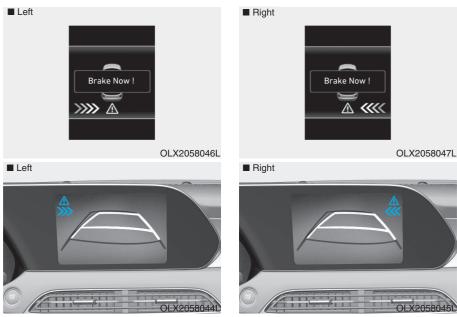


If the vehicle detected by the sensors approaches from the rear left/right side of your vehicle, the warning chime will sound, the warning light on the outside rearview mirror will blink and a message will appear on the LCD display. If the rear view monitor system is in activation, a message will also appear on the audio or AVN screen.

The warning will stop when:

- The detected vehicle moves out of the sensing area or
- when the vehicle is right behind your vehicle or
- when the vehicle is not approaching your vehicle or
- when the other vehicle slows down.
- The vehicle's approaching speed is decreased.

## Rear Cross-Traffic Collision-Avoidance Assist (RCCA) system



If the risk of collision is detected while the RCCW is generated, brake is controlled. The instrument cluster will inform the driver of the brake control. If the rear view monitor system is in activation, a message will also appear on the audio or AVN screen.

After the brake control, the driver must immediately depress the brake pedal and check the surroundings.

- The brake activation by the system lasts for about 2 seconds.
  - The driver must pay attention as the brake is disengaged after 2 seconds.
- The brake control by the system is cancelled if the driver depresses the brake pedal with sufficient power.
- Brake control is activated once for each right/left approach after shifting the shift button to R (Reverse).

The brake control may not operate properly according to the status of the ESC (Electronic Stability Control). The same warning message is displayed on the instrument cluster for this case also.

- When the ESC (Electronic Stability Control) warning light is on.
- When the ESC (Electronic Stability Control) is engaged in a different function.

# **A** CAUTION

- When the operation condition of the Rear Cross-Traffic Collision Warning system is satisfied, the warning will occur every time a vehicle approaches the side or rear of your stopped (0 km/h vehicle speed) vehicle.
- The system's warning or brake may not operate properly if the left or right of your vehicle's rear bumper is blocked by a vehicle or obstacle.
- The driver should always use extreme caution while operating the vehicle, whether or not the warning light on the outside rearview mirror illuminates or there is a warning alarm.
- Playing the vehicle audio system at high volume may offset the system's warning sounds.

- The warning of the Rear Cross-Traffic Collision Warning System may not sound while other system's warning sounds.
- If any other warning sound such as seat belt warning chime is already generated, the Rear Cross-Traffic Collision Warning system warning may not sound.

## **A** WARNING

- Drive safely even though the vehicle is equipped with a Rear Cross-Traffic Collision Warning system and Rear Cross-Traffic Collision-Avoidance Assist system. Do not solely rely on the system but check your surrounding when backing the vehicle up.
- The driver is responsible for accurate brake control.

- Always pay extreme caution while driving. The Rear Cross-Traffic Collision Warning system and Rear Cross-Traffic Collision-Avoidance Assist system may not operate properly or unnecessarily operate in accordance with your driving situations.
- The Rear Cross-Traffic Collision-Avoidance Assist system is not a substitute for safe driving practices, but a convenience function only. It is the responsibility of the driver to always drive cautiously to prevent unexpected and sudden situations from occurring. Pay attention to the road conditions at all times.

## **Detecting Sensor**



The rear radars are the sensors inside the rear bumper for detecting the side and rear areas. Always keep the rear bumper clean for proper operation of the system.

## **!** CAUTION

- The system may not work properly when the bumper has been damaged, or if the rear bumper has been replaced or repaired.
- The system may turn off due to strong electromagnetic waves.

- Always keep the sensors clean.
- NEVER arbitrarily disassemble the sensor component nor apply any impact on the sensor component.
- Be careful not to apply unnecessary force on the radar sensor or sensor cover. If the sensor is forcibly moved out of proper alignment, the system may not operate correctly. In this case, a warning message may not be displayed. Have the vehicle inspected by an authorized HYUNDAI dealer.
- Do not apply foreign objects such as a bumper sticker or a bumper guard near the radar sensor or apply paint to the sensor area. Doing so may adversely affect the performance of the sensor.

## Warning message



Blind-Spot Collision Warning (BCW) system disabled. Radar blocked

This warning message may appear when:

- One or both of the sensors on the rear bumper is blocked by dirt or snow or a foreign object.
- Driving in rural areas where the sensor does not detect another vehicle for an extended period of time.
- When there is inclement weather such as heavy snow or rain.

If any of these conditions occur, the light on the BCW switch and the system will turn off automatically.

When the BCW canceled warning message is displayed in the cluster, check to make sure that the rear bumper is free from any dirt or snow in the areas where the sensor is located. Remove any dirt, snow, or foreign material that could interfere with the radar sensors.

After any dirt or debris is removed, the system should operate normally after about 10 minutes of driving the vehicle.

If the system still does not operate normally, we recommend that you have your vehicle inspected by an authorized HYUNDAI dealer.

# Information

Turn off the BCW and RCCW system when a trailer or carrier is installed.

- Press the BCW button (the indicator on the switch will turn off)
- Deactivate the RCCW system by deselecting "User settings → Driver assistance → Parking safety → Rear Cross Traffic Safety".



**Check Blind-Spot Collision** Warning (BCW) system

If there is a problem with the BCW system, a warning message will appear and the light on the switch will turn off. The system will turn off automatically. RCCW and RCCA will not operate also if the BCW system turns off due to malfunction. We recommend that you have your vehicle inspected by an authorized HYUNDAI dealer.

# **Limitations of the system**

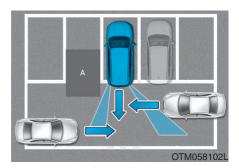
The driver must be cautious in the below situations, because the system may not detect other vehicles or objects in certain circumstances.

- When a trailer or carrier is installed.
- The vehicle drives in inclement weather such as heavy rain or snow.
- The sensor is polluted with rain, snow, mud, etc.
- The rear bumper where the sensor is located is covered with a foreign object such as a bumper sticker, a bumper guard, a bike rack, etc.
- The rear bumper is damaged, or the sensor is out of the original default position.
- The vehicle height gets lower or higher due to heavy loading in a trunk, abnormal tire pressure, etc.
- When the temperature of the rear bumper is high.
- When the sensors are blocked by other vehicles, walls or parking-lot pillars.

- The vehicle drives on a curved road.
- The road pavement (or the peripheral ground) abnormally contains metallic components (i.e. possibly due to subway construction).
- There is a fixed object near the vehicle, such as a guardrail.
- While going down or up a steep road where the height of the lane is different.
- Driving on a narrow road where trees or grass or overgrown.
- Driving in rural areas where the sensor does not detect another vehicle for an extended period of time.
- Driving on a wet road.
- Driving on a road where the guardrail or wall is in double structure.
- A big vehicle is near such as a bus or truck.
- When the other vehicle approaches very close.
- When the other vehicle passes at a very fast speed.

- While changing lanes.
- If the vehicle has started at the same time as the vehicle next to you and has accelerated.
- When 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 motorcycle or bicycle is near.
- A flat trailer is near.
- If there are small objects in the detecting area such as a shopping cart or a baby stroller.
- If there is a low height vehicle such as a sports car.
- The brake pedal is depressed.
- ESC (Electronic Stability Control) is activated.
- ESC (Electronic Stability Control) malfunctions.
- The tire pressure is low or a tire is damaged.
- The brake is reworked.
- The vehicle sharply stops.
- Temperature is extremely low around the vehicle.

- The vehicle severely vibrates while driving over a bumpy road, uneven/bumpy road, or concrete patch.
- The vehicle drives on a slippery surface due to snow, water puddle, or ice.
- If the vehicle moves backward after the vehicle is parked with a diagonal line



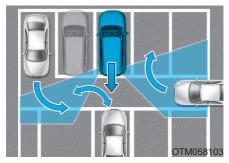
[A]: Structure

 Driving where there is a vehicle or structure near

The system may not operate properly when driving where there is a vehicle or structure near.

In certain instances, the system may not detect the vehicle approaching from behind and the warning or brake may not operate properly.

Always pay attention to your surrounding while driving.

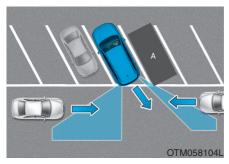


When the vehicle is in a complex parking environment

The system may not operate properly when the vehicle is in a complex parking environment.

In certain instances, the system may not be able to exactly determine the risk of collision for the vehicles which are parking or pulling out near your vehicle (e.g. a vehicle escaping beside your vehicle, a vehicle parking or pulling out in the rear area, a vehicle approaching your vehicle making a turn, etc.).

In this case, the warning or brake may not operate properly.



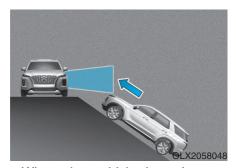
[A] : Vehicle

When the vehicle is parked diagonally

The system may not operate properly when the vehicle is parked diagonally.

In certain instances, when the diagonally parked vehicle is pulled out of the parking space, the system may not detect the vehicle approaching from the rear left/right of your vehicle. In this case, the warning or brake may not operate properly.

Always pay attention to your surrounding while driving.

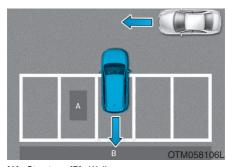


When the vehicle is on/near a slope

The system may not operate properly when the vehicle is on/near a slope.

In certain instances, the system may not detect the vehicle approaching from the rear left/right and the warning or brake may not operate properly.

Always pay attention to your surrounding while driving.



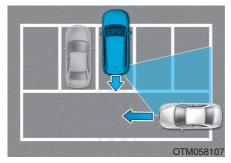
 $[A]: Structure, \, [B]: Wall \,$ 

 Pulling into the parking space where there is a structure

The system may not operate properly when pulling in the vehicle to the parking space where there is a structure at the back or side of your vehicle.

In certain instances, when backing into the parking space, the system may not detect the vehicle moving in front of your vehicle. In this case, the warning or brake may not operate properly.

Always pay attention to the parking space while driving.



When the vehicle is parked rearward

If the vehicle is parked rearward and the sensor detects the another vehicle in the rear area of the parking space, the system can warn or control braking. Always pay attention to the parking space while driving.

## LANE KEEPING ASSIST (LKA) SYSTEM (IF EQUIPPED)



The Lane Keeping Assist (LKA) system with a camera at the front windshield, helps detect lane markers on the road, and assists the driver's steering to help keep the vehicle between lanes.

When the system detects the vehicle straying from its lane, it alerts the driver with a visual and audible warning, while applying a counter-steering torque, trying to prevent the vehicle from moving out of its lane.

# **A** WARNING

The Lane Keeping Assist (LKA) system is not a substitute for safe driving practices, but a convenience function. It is the responsibility of the driver to always be aware of the surrounding and steer the vehicle.

### **A** WARNING

Take the following precautions when using the Lane Keeping Assist (LKA) system:

- Do not steer the steering wheel suddenly when the steering wheel is being assisted by the system.
- LKA system helps to prevent the driver from moving out of the lane unintentionally by assisting the driver's steering. However, the driver should not solely rely on the system but always pay attention on the steering wheel to stay in the lane.

- The operation of the LKA system can be canceled or not work properly according to road condition and surroundings. Always be cautious when driving.
- Do not disassemble the LKA system camera temporarily to tint the window or attach any types of coatings and accessories. If you disassemble the camera and assemble it again, we recommend that you take your vehicle to an authorized HYUNDAI dealer and have the system checked for calibration.
- When you replace the windshield glass, LKA system camera or related parts of the steering wheel, we recommend that you take your vehicle to an authorized HYUNDAI dealer and have the system checked for calibration.

- The system detects lane markers and controls the steering wheel by a camera, therefore, if the lane markers are hard to detect, the system may not work properly.
  - Please refer to "Limitations of the system".
- Do not remove or damage the related parts of LKA system.
- You may not hear a warning sound of LKA system because of excessive audio sound.
- If any other warning sound such as seat belt warning chime is already generated, the Lane Keeping Assist (LKA) system warning may not sound.
- Do not place objects on the dashboard that reflects light such as mirrors, white paper, etc. The system may malfunction if the sunlight is reflected.

- Always have your hands on the steering wheel while the LKA system is activated. If you continue to drive with your hands off the steering wheel after the "Keep hands on steering wheel" warning message appears, the system will stop control the steering wheel.
- The steering wheel is not continuously controlled so if the vehicle speed is at a higher rate when leaving a lane the vehicle may not be controlled by the system. The driver must always follow the speed limit when using the system.
- If you attach objects to the steering wheel, the system may not assist steering or the hands off alarm may not work properly.

### **LKA** operation



To activate/deactivate the LKA system:

With the ignition switch in the ON position, press the LKA system button located on the instrument panel on the left hand side of the steering wheel.

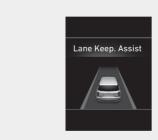
The indicator in the cluster display will initially illuminate white. When the indicator (white) activated in the previous ignition cycle, the system turns on without any control. If you press the LKA button again, the indicator on the cluster display will go off.

- White: Sensor does not detect lane markers or vehicle speed is under 64 km/h (40 mph).
- Green: Sensor detects lane markers and the system is able to control vehicle steering.

# information - (For Middle East)

If the indicator (white) is activated from the previous ignition cycle, the system will turn ON without any additional control. If you press the LKA button again, the indicator on the cluster goes off.

#### LKA activation



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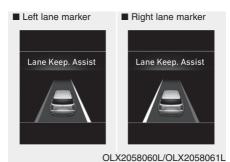
- To see the LKA system screen on the LCD display in the cluster, select ASSIST mode (A). For more details, refer to "LCD Display Modes" in chapter 3.
- After LKA is activated, if lane marker is detected, vehicle speed is over 64 km/h (40 mph) and all the activation conditions are satisfied, a green LKA indicator will change to green and the steering wheel will be controlled.

#### **A** WARNING

The Lane Keeping Assist (LKA) system is a system to prevent the driver from leaving the lane. However, the driver should not solely rely on the system but always check the road conditions when driving.



If vehicle speed is over 64 km/h (40 mph) and the system detects lane markers, the color changes from gray to white.



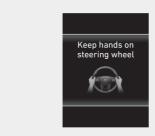
If the vehicle leaves a lane, the lane that you cross will blink on the LCD display and a warning sound is heard.



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When the conditions below are met, LKA will be enable to assist steering.

- Vehicle speed is above 64 km/h (40 mph).
- Both lane markers are detected by LKA.
- The vehicle is between the lane markers.



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Keep hands on steering wheel
If the driver takes their hands off the
steering wheel for several seconds
while the LKA system is activated,
the system will warn the driver.

#### **A** WARNING

- The warning message may appear late according to road conditions. Therefore, always have your hands on the steering wheel while driving.
- If you hold the steering wheel lightly, the system would generate hands off warning because LKA can treat the situation as you do not grab the wheel.

#### **A** WARNING

- The driver is responsible for accurate steering.
- Even though the steering is assisted by the system, the driver may control the steering wheel.
- Turn off the system and drive the vehicle in following situations.
  - In bad weather
  - In bad road condition
  - When the steering wheel needs to be controlled by the driver frequently.
  - When towing a vehicle or trailer.
- The steering wheel may feel heavier when the steering wheel is assisted by the system than when it is not.

# Warning light and message

#### Check LKA system



#### LKA failure indicator

The LKA failure indicator (yellow) will illuminate if the LKA is not working properly. We recommend that the system be checked by an authorized HYUNDAI dealer.

### LKA system failure indicator



The LKA system failure indicator (yellow) will illuminate if the LKA system is not working properly. We recommend that the system be checked by an authorized HYUNDAI dealer.

When there is a problem with the system do one of the following:

- Turn the system on after turning the engine off and on again.
- Check if the ignition switch is in the ON position.
- Check if the system is affected by the weather. (e.g. fog, heavy rain, etc.)
- Check if there is foreign matter on the camera lens.

If the problem is not solved, we recommend that the system be checked by an authorized HYUNDAI dealer.

The LKA system will not be in the ENABLED state and the steering wheel will not be assisted when:

- The system may not operate for 15 seconds after the engine is started or the camera is initialized.
- The turn signal is turned on before changing a lane. If you change lanes without the turn signal on, the steering wheel might be controlled.
- The vehicle is not driven in the middle of the lane when the system 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 55 km/h (34 mph) and over 180 km/h (112 mph).
- The vehicle makes sharp lane changes.
- The steering will not be assisted when you across the lane fast.

- The steering will not be assisted when you brake suddenly.
- The vehicle brakes suddenly.
- Only one lane marker is detected.
- The steering will not be assisted when the lane (or road width) is very wide or narrow.
- There are more than two lane markers such as a construction area.
- The vehicle is driven on a steep incline.
- The steering wheel is turned suddenly.

#### **Driver's attention**

The driver must be cautious in the below situations may not work properly when recognition of the lane marker is poor or limited:

# ▶ When lane and road condition is poor

- It is difficult to distinguish the lane marker from road when the lane marker is covered with dust or sand.
- It is difficult to distinguish the color of the lane marker from road.
- There is something looks like a lane marker.
- The lane marker is indistinct or damaged.
- The number of lanes increases/ decreases or the lane lines are crossing (Driving through a toll plaza/toll gate, merged/divided lane).

- There are more than two lane markers.
- The lane marker is very thick or thin.
- The lane marker is not visible due to snow, rain, stain, a puddle or other factors.
- A shadow is on the lane marker because of a median strip, guardrail, noise barriers and others.
- When the lane markers are complicated or a structure substitutes for the lines such as a construction area.
- There are crosswalk signs or other symbols on the road.
- The lane suddenly disappears such as at the intersection.
- The lane marker in a tunnel is covered with dirt or oil and etc.
- The lane is very wide or narrow.

# ► When external condition is intervened

- The brightness of outside changes suddenly when entering/existing a tunnel or passing under a bridge.
- The headlamps are not on at night or in a tunnel, or light level is low.
- There is a boundary structure in the roadway.
- The light of street, sun, oncoming vehicle and so on reflects from the water on the road.
- When light shines brightly in the reverse direction you drive.
- · Road surface is not evenness.
- The distance from the vehicle ahead is very short or the vehicle ahead drives hiding the lane line.
- You drive on a steep grade or a sharp curve.
- The vehicle vibrates heavily.
- The temperature near inside mirror is very high due to direct sun light and etc.

#### ► When front visibility is poor

- The lens or windshield is covered by strange materials.
- The sensor cannot detect the lane because of fog, heavy rain or snow.
- The windshield is fogged by humid air in the vehicle.
- Putting something on the crash pad and etc.

### **A** WARNING

The Lane Keeping Assist System is a system to help prevent the driver from leaving the lane. However, the driver should not solely rely on the system but always take the necessary actions for safe driving practices.

### **LKA** system function change

The driver can change LKA to the Lane Departure Warning (LDW) system or change the LKA system mode from the LCD display. Go to the "User Settings → Driver Assistance → Lane Safety → Lane Keeping Assist (LKA)/Lane Departure Warning (LDW)/Off".

The system is automatically set to Lane Keeping Assist(LKA) if a function is not selected.

#### Lane Keeping Assist (LKA)

The LKA mode guides the driver to keep the vehicle within the lanes. It rarely controls the steering wheel, when the vehicle drives well inside the lanes. However, it starts to control the steering wheel, when the vehicle is about to deviate from the lanes.

### Lane Departure Warning (LDW)

LDW alerts the driver with a visual and acoustic warning when the system detects the vehicle leaving the lane. In this mode, the steering wheel will not be controlled. When the vehicle's front wheel contacts the inside edge of lane line, LKA issues the lane departure warning.

#### Off

If you select "Off", the LKA system is deactivated.

# LANE FOLLOWING ASSIST (LFA) SYSTEM (IF EQUIPPED)



The Lane Following Assist (LFA) system helps detect lane markers on the road with a front view camera at the front windshield, and assists the driver's steering to help keep the vehicle between lanes.

### **A** WARNING

The Lane Following Assist (LFA) system is not a substitute for safe driving practices, but a convenience function. It is the responsibility of the driver to always be aware of the surrounding and steer the vehicle.

#### **A** WARNING

Take the following precautions when using the Following Assist (LFA) system:

- Do not steer the steering wheel suddenly when the steering wheel is being assisted by the system.
- LFA system helps the driver to keep the vehicle in the center of the lane by assisting the driver's steering. However, the driver should not solely rely on the system but always pay attention on the steering wheel to stay in the lane.
- The operation of the LFA system can be canceled or not work properly according to road condition and surroundings. Always be cautious when driving.

- Do not disassemble the LFA system camera temporarily to tint the window or attach any types of coatings and accessories. If you disassemble the camera and assemble it again, we recommend that you take your vehicle to an authorized HYUNDAI dealer and have the system checked for calibration.
- When you replace the windshield glass, LFA system camera or related parts of the steering wheel, we recommend that you take your vehicle to an authorized HYUNDAI dealer and have the system checked for calibration.
- The system detects lane markers and controls the steering wheel by a camera, therefore, if the lane markers are hard to detect, the system may not work properly.

Please refer to "Limitations of the system".

- Do not remove or damage the related parts of LFA system.
- You may not hear a warning sound of LFA system because of excessive audio sound.
- Do not place objects on the dashboard that reflects light such as mirrors, white paper, etc. The system may malfunction if the sunlight is reflected.
- Always have your hands on the steering wheel while the LFA system is activated. If you continue to drive with your hands off the steering wheel after the "Keep hands on steering wheel" warning message appears, the system will turn off automatically.

However, if the driver has their hands on the steering wheel again, the system will start controlling the steering wheel.

- The steering wheel is not continuously controlled so if the vehicle speed is at a higher rate when leaving a lane the vehicle may not be controlled by the system. The driver must always follow the speed limit when using the system.
- If you attach objects to the steering wheel, the system may not assist steering or the hands off alarm may not work properly.
- When you tow a trailer, make sure that you turn off the LFA system.

### **LFA** operation

The driver can turn on the LFA system with the vehicle on and by selecting 'User settings  $\rightarrow$  Driver assistance  $\rightarrow$  Driving Assist  $\rightarrow$  Lane Following Assist' in the cluster LCD display.

The LFA deactivates, when the driver deselects the system setting from the User Settings mode in the cluster LCD display.

The set-up of the LFA system will be maintained, as selected, when the vehicle is restarted.

#### Operating conditions

The system activates when the Lane Following Assist is selected from the User Settings mode in the cluster LCD display and when the following conditions are satisfied:

- The Smart Cruise Control is in activation (vehicle deceleration and acceleration)
- Vehicle speed is lower than 150 km/h (93 mph)

When the system is activated, the indicator ( $\bigcirc$ ) on the cluster will illuminate. The color of the indicator will change depending on the condition of LFA system.

- Green: The system is in the enable state.
- White: The system is in the ready state.

#### LFA activation



- After LFA is activated, if the vehicle is within the lane and both lane markers are detected (lane color changes grey to white) and there is no abrupt steering by the driver, indicator light will change from white to green. This indicates that the LFA system is in the ENABLED state and the steering wheel will be able to be controlled.
- The indicator light changes from green to white when the control is temporarily cancelled.

When the system does not recognize the lane or depending on the vehicle condition in front (presence of the vehicle, driving status, etc.). the steering wheel is controlled restrictively.

When the control of the steering wheel is stopped temporarily the activation indicator blinks in green and then changes to white.

### Warning message



Keep hands on steering wheel
If the driver takes their hands off the
steering wheel for several seconds
while the LFA system is activated,
the system will warn the driver.

# *i* Information

If the steering wheel is held very lightly the message may still appear because the LFA system may not recognize that the driver has their hands on the wheel.

#### **A** WARNING

The warning message may appear late according to road conditions. Therefore, always have your hands on the steering wheel while driving.



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# **Driving convenience systems** cancelled

If the driver still does not have their hands on the steering wheel after the message "Keep hands on steering wheel", the system will not control the steering wheel and warn the driver only when the driver crosses the lane markers.

However, if the driver has their hands on the steering wheel again, the system will start controlling the steering wheel.

#### **A** WARNING

- The driver is responsible for accurate steering.
- Turn off the system and drive the vehicle in following situations.
  - In bad weather
  - In bad road condition
  - When the steering wheel needs to be controlled by the driver frequently.

### **i** Information

- Even though the steering is assisted by the system, the driver may control the steering wheel.
- The steering wheel may feel heavier when the steering wheel is assisted by the system than when it is not.



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# **Check LFA (Lane Following Assist)** system

If there is a problem with the system a message will appear for a few seconds. If the problem continues the LFA system failure indicator will illuminate.

# The LFA system will not be in the ASSIST state when:

- The system may not operate for 15 seconds after the engine is started or the camera is initialized.
- The turn signal is turned on before changing a lane. If you change lanes without the turn signal on, the steering wheel might be controlled.
- The vehicle is not driven in the middle of the lane when the system 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 over:
  - Middle East: 145 km/h (90 mph)
  - Europe and Mexico: 175 km/h (108 mph)
- The vehicle makes sharp lane changes.
- The vehicle brakes suddenly.
- Only one lane marker is detected.
- The lane is very wide or narrow.

- Radius of a curve is too small.
- The vehicle is driven on a steep incline.
- The steering wheel is turned suddenly.

### Limitations of the system

The LFA system may operate prematurely even if the vehicle does not depart from the intended lane, OR, the LFA system may not assist your steering or warn you if the vehicle leaves the intended lane under the following circumstances:

# When the lane and road conditions are poor

- It is difficult to distinguish the lane marking from the road surface or the lane marking is faded or not clearly marked.
- It is difficult to distinguish the color of the lane marker from the road.
- There are markings on the road surface that look like a lane marker that is inadvertently being detected by the camera.

- The lane marker is indistinct or damaged.
- The lane marker is merged or divided. (e.g. tollgate)
- The lane number increases or decreases or the lane marker are crossing complicatedly.
- There are more than two lane markers on the road in front of you.
- The lane marker is very thick or thin.
- The lane is very wide or narrow.
- The lane marker ahead is not visible due to rain, snow, water on the road, damaged or stained road surface, or other factors.
- The shadow is on the lane marker by a median strip, trees, guardrail, noise barriers, etc.
- The lane markers are complicated or a structure substitutes for the lines such as a construction area.
- There are crosswalk signs or other symbols on the road.
- The lane marker in a tunnel is stained with oil, etc.
- The lane suddenly disappears such as at the intersection.

# When external condition is intervened

- The brightness outside changes suddenly such as when entering or exiting a tunnel, or when passing under a bridge.
- The brightness outside is too low such as when the headlamps are not on at night or the vehicle is going through a tunnel.
- There is a boundary structure in the roadway such as a concrete barrier, guardrail and reflector post that is inadvertently being detected by the camera.
- When light coming from a street light or an oncoming vehicle is reflected on a wet road surface such as a puddle in the road.
- The field of view in front is obstructed by sun glare.
- There is not enough distance between you and the vehicle in front to be able to detect the lane marker or the vehicle ahead is driving on the lane marker.

- Driving on a steep grade, over a hill, or when driving on a curved road.
- The adverse road conditions cause excessive vehicle vibrations while driving.
- The surrounding of the inside rear view mirror temperature is high due to direct sunlight, etc.
- The sensor recognition changes suddenly when passing over a speed bump or driving on a steep up/down or right/left grade

#### When front visibility is poor

- The windshield or the camera lens is blocked with dirt or debris.
- The windshield glass is fogged up; a clear view of the road is obstructed.
- Placing objects on the dashboard, etc.
- The sensor cannot detect the lane because of fog, heavy rain or snow.

### DRIVER ATTENTION WARNING (DAW) SYSTEM (IF EQUIPPED)

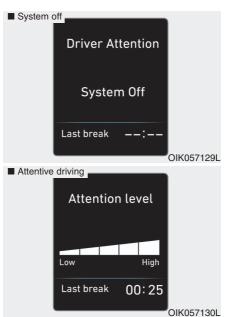
The Driver Attention Warning (DAW) system displays the condition of the driver's fatigue level.

# System setting and activation

#### System setting

- To turn ON the Driver Attention Warning (DAW) system, turn on the engine, and then select "User Settings → Driver Assistance → Driver Attention Warning" on the LCD display. If you deselect "User Settings → Driver Assistance → Driver Attention Warning" on the LCD display, the Driver Attention Warning (DAW) system turns off.
- The set-up of the Driver Attention Warning (DAW) system will be maintained, as selected, when the engine is re-started.

# Display of the driver's attention level





 The driver can monitor their driving conditions on the LCD display.

The DAW screen will appear when you select the ASSIST mode tab ((A)) on the LCD display if the system is activated. (For more details, refer to "LCD Display Modes" in chapter 3.)

- 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.
- The level increases when the driver attentively drives for a certain period of time.

 When the driver turns on the system while driving, it displays 'Last Break time' and level.

#### Take a break



- The "Consider taking a break" message appears on the LCD display and a warning sounds in order to suggest the driver to take a break, when the driver's attention level is below 1.
- The Driver Attention Warning (DAW) system does not suggest the driver to take a break, when the total driving time is shorter than 10 minutes.

# **A** CAUTION

If any other warning sound such as seat belt warning chime is already generated, the Driver Attention Warning (DAW) may not sound.

#### **Resetting the system**

- The last break time is set to 00:00 and the driver's attention level is set to 5 (very attentive) when the driver resets the Driver Attention Warning (DAW) system.
- The Driver Attention Warning (DAW) system resets in the following situations.
  - The engine is turned OFF.
  - The driver unfastens the seat belt and then opens the driver's door.
  - The vehicle is stopped for more than 10 minutes.
- The Driver Attention Warning (DAW) system operates again, when the driver restarts driving.

### System standby



The Driver Attention Warning (DAW) system enters the ready status and displays the 'Standby' screen in the following situations.

- The camera sensor keeps failing to detect the lanes.
- Driving speed remains over 180 km/h (112 mph).

### **System malfunction**



# **Check Driver Attention Warning** (DAW) system

When the "Check Driver Attention Warning (DAW) system" warning message appears, the system is not working properly. In this case, we recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.

#### **A** WARNING

- The Driver Attention Warning (DAW) system is not a substitute for safe driving practices, but a convenience function only. It is the responsibility of the driver to always drive cautiously to prevent unexpected and sudden situations from occurring. Pay attention to the road conditions at all times.
- The system may suggest a break according to the driver's driving pattern or habits even if the driver doesn't feel fatigue.
- The driver, who feels fatigued, should take a break, even though there is no break suggestion by the Driver Attention Warning (DAW) system.

#### NOTICE

The Driver Attention Warning (DAW) system utilizes the camera sensor on the front windshield for its operation. To keep the camera sensor in the best condition, you should observe the followings:

- Do not disassemble camera temporarily for tinted window or attaching any types of coatings and accessories. If you disassemble a camera and assemble it again, we recommend that you take your vehicle to an authorized HYUNDAI dealer and have the system checked for calibration.
- Do not locate any reflective objects (i.e. white paper, mirror) over the dashboard. Any light reflection may cause a malfunction of the Driver Attention Warning (DAW) system.
- Pay extreme caution to keep the camera sensor out of water.
- Do not arbitrarily disassemble the camera assembly, nor apply any impact on the camera assembly.

 Playing the vehicle audio system at high volume may offset the Driver Attention Warning system warning sounds.

### **A** CAUTION

The Driver Attention Warning (DAW) system may not properly operate with limited alerting in the following situations:

- The lane detection performance is limited. (For more information, refer to "Lane Keeping Assist (LKA) system" in this chapter.)
- The vehicle is violently driven or is abruptly turned for obstacle avoidance (e.g. construction area, other vehicles, fallen objects, bumpy road).

- Forward drivability of the vehicle is severely undermined (possibly due to wide variation in tire pressures, uneven tire wear-out, toein/toe-out alignment).
- The vehicle drives on a curvy road.
- The vehicle drives through a windy area.
- The vehicle drives on a bumpy road.
- The vehicle is controlled by the following driving assist systems:
  - Lane Keeping Assist (LKA) system
  - Forward Collision-avoidance Assist (FCA) system
  - Smart Cruise Control (SCC) system
  - Lane Following Assist (LFA) system

#### **A** CAUTION

Playing the vehicle audio system at high volume may offset the Driver Attention Warning (DAW) system warning sounds.

#### **CRUISE CONTROL**

### **Cruise Control operation**



- 1. CRUISE ( ) indicator
- 2. Set speed

The Cruise Control system allows you to drive at speeds above 30 km/h (20 mph) without depressing the accelerator pedal.

#### **A** WARNING

Take the following precautions:

- Always set the vehicle speed under the speed limit in your country.
- If the Cruise Control is left on, (CRUISE (🚱)) indicator light in the instrument cluster is illuminated) the Cruise Control can be activated unintentionally. Keep the Cruise Control system off (CRUISE indicator light OFF) when the Cruise Control is not in use, to avoid inadvertently setting a speed.
- Use the Cruise Control system only when traveling on open highways in good weather.
- Do not use the 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 winding roads
- When driving in windy areas
- Do not use cruise control when towing a trailer.

# Information

- During normal cruise control operation, when the SET switch is activated or reactivated after applying the brakes, the cruise control will activate after approximately 3 seconds. This delay is normal.
- Before activating the cruise control function, the system will check to verify that the brake switch is operating normally. Depress the brake pedal at least once after turning ON the ignition or starting the vehicle.



**Cruise control switch** 

O (Cancel): Cancels cruise control operation.

CRUISE ( ), CRUISE):

Turns cruise control system on or off.

RES+: Resumes or increases cruise control speed.

SET-: Sets or decreases cruise control speed.

#### To set Cruise Control speed



- 1. Press the (S) (CRUISE) button on the steering wheel to turn the system on. The (S) (CRUISE) indicator will illuminate.
- Accelerate to the desired speed, which must be more than 30 km/h (20 mph).



- Push the toggle switch down (SET-), and release it. The set speed on the LCD display will illuminate.
- 4. Release the accelerator pedal.

### **i** Information

On a steep slope, the vehicle may slightly slow down or speed up, while driving uphill or downhill.

# To increase Cruise Control speed



 Push the toggle switch up (RES+) and hold it, while monitoring the set speed on the instrument cluster.

Release the toggle switch when the desired speed is shown and the vehicle will accelerate to that speed.

 Push the toggle switch up (RES+), and release it immediately. The cruising speed will increase by 1 km/h (1 mph) each time you move the toggle switch up in this manner.  Push the toggle switch up (RES+), and hold it. Your vehicle set speed will increase by 10 km/h (5 mph). Release the toggle switch at the speed you want.

# To decrease Cruise Control speed



- Push the toggle switch down (SET-), and release it immediately. The cruising speed will decrease by 1 km/h (1 mph) each time you move the toggle switch down in this manner.
- Push the toggle switch down (SET-), and hold it. Your vehicle set speed will decrease by 10 km/h (5 mph). Release the toggle switch at the speed you want.
- Lightly tap the brake pedal. When the vehicle attains the desired speed, push the toggle switch down (SET-).

# To temporarily accelerate with the Cruise Control ON

Depress the accelerator pedal. When you take your foot off the accelerator, the vehicle will return to the previously set speed.

If you push the toggle switch down (SET-) at the increased speed, the Cruise Control will maintain the increased speed.

# Cruise Control will be canceled when:



- Depressing the brake pedal.
- Pressing the O (Cancel) button located on the steering wheel.
- Pressing the (CRUISE) button. Both the (CRUISE) indicator and the set speed will turn off.
- Moving the shift button into N (Neutral).
- Decreasing the vehicle speed to less than approximately 30 km/h (20 mph).
- The ESC (Electronic Stability Control) is operating.

# *i* Information

Each of the above actions will cancel Cruise Control operation (the set speed on the instrument cluster will go off), but only pressing the (S) (CRUISE) button will turn the system off. If you wish to resume Cruise Control operation, push the toggle switch up (RES+) located on your steering wheel. You will return to your previously preset speed, unless the system was turned off using the (CRUISE) button.

# To resume preset Cruising speed



Push the toggle switch up (RES+). If the vehicle speed is over 30 km/h (20 mph), the vehicle will resume the preset speed.

### To turn Cruise Control off



 Press the (CRUISE) button (the (CRUISE) indicator light will go off).

### SMART CRUISE CONTROL (SCC) WITH STOP & GO SYSTEM (IF EQUIPPED)



OLX2058049

- Cruise indicator
- ② Set speed
- ③ Vehicle-to-vehicle distance

To see the SCC screen on the LCD display on the cluster, select Assist mode (A). For more informations, refer to "LCD Display Modes" in chapter 3.

The Smart Cruise Control system allows you to program the vehicle to maintain constant speed and minimum distance between the vehicle ahead.

The Smart Cruise Control system will automatically adjust your vehicle speed to maintain your programmed speed and following distance without requiring you to depress the accelerator or brake pedals.

#### WARNING

For your safety, please read the owner's manual before using the Smart Cruise Control system.

### **A** WARNING

- The Smart Cruise Control system is not a substitute for safe driving practices, but a convenience function only. It is the responsibility of the driver to always check the speed and distance to the vehicle ahead.
- Always be aware of road conditions while driving and be alert for unexpected situations even though the Smart Cruise Control System is operating.
- The Blind-Spot Collision Warning System (BCW) is supplemental systems to assist you. Do not entirely rely on the systems. Always pay attention, while driving, for your safety.

#### **Smart Cruise Control Switch**



CRUISE/(\*): Turns cruise control system on or off.

RES+: Resumes or increases cruise control speed.

SET-: Sets or decreases cruise control speed.

: Sets vehicle-to-vehicle distance.

CANCEL/O : Cancels cruise control operation.

### **Smart Cruise Control speed**

To set Smart Cruise Control speed



- Push the CRUISE/(S) button on the steering wheel to turn the system on. The cruise indicator will illuminate.
- Accelerate to the desired speed.The Smart Cruise Control speed can be set as follows:
  - 30 km/h (20 mph) ~ 160 km/h (100 mph) : when there is no vehicle in front
  - 0 km/h (0 mph) ~ 160 km/h (100 mph): when there is a vehicle in front



- Push the toggle switch down (SET-). The Set Speed and Vehicle-to-Vehicle Distance on the LCD display will illuminate.
- Release the accelerator pedal. The desired speed will automatically be maintained.

If there is a vehicle in front of you, the speed may decrease to maintain the distance to the vehicle ahead.

On a steep grade, the vehicle may slow down or speed up slightly while going uphill or downhill.

# Information

- Vehicle speed may decrease on an upward slope and increase on a downward slope.
- When you are setting the cruise control speed, with a vehicle in front and your vehicle speed is between 0 ~ 30 km/h (0 ~ 20 mph), the speed will set to 30 km/h (20 mph).

# To increase Smart Cruise Control set speed



Follow either of these procedures:

- Push the toggle switch up (RES+), and release it immediately. The cruising speed will increase by 1 km/h (1 mph) each time you move the toggle switch up in this manner.
- Push the toggle switch up (RES+), and hold it. Your vehicle set speed will increase by 10 km/h (5 mph). Release the toggle switch at the speed you want.
- You can set the speed to 160 km/h (100 mph).

### **!** CAUTION

Check the driving condition before using the toggle switch. Driving speed sharply increases, when you push up and hold the toggle switch.

# To decrease the Smart Cruise Control set speed



Follow either of these procedures:

- Push the toggle switch down (SET-), and release it immediately. The cruising speed will decrease by 1 km/h (1 mph) each time you move the toggle switch down in this manner.
- Push the toggle switch down (SET-), and hold it. Your vehicle set speed will decrease by 10 km/h (5 mph). Release the toggle switch at the speed you want.
- You can set the speed to 30 km/h (20 mph).

# To temporarily accelerate with the Smart Cruise Control on

If you want to speed up temporarily when the Smart Cruise Control is on, depress the accelerator pedal. Increased speed will not interfere with Smart Cruise Control operation or change the set speed.

To return to the set speed, take your foot off the accelerator pedal.

If you push the toggle switch down (SET-) at increased speed, the cruising speed will be set again.

# **i** Information

Be careful when accelerating temporarily, because the speed is not controlled automatically at this time even if there is a vehicle in front of you.

# Smart Cruise Control will be temporarily canceled when:



### **Cancelled manually**

- Depressing the brake pedal.
- Pushing the CANCEL/O button located on the steering wheel.

The Smart Cruise Control turns off temporarily when the Set Speed and Vehicle-to-Vehicle Distance indicator on the LCD display turns off.

The cruise indicator is illuminated continuously.

#### Cancelled automatically

- The driver's door is opened.
- The vehicle is shifted to N (Neutral), R (Reverse) or P (Park).
- The parking brake is applied.
- The vehicle speed is over 170 km/h (105 mph).
- The ESC (Electronic Stability Control), TCS (Traction Control System) or ABS is operating.
- . The ESC is turned off.
- The sensor or the cover is dirty or blocked with foreign matter.
- The vehicle is stopped for a certain period of time.
- The vehicle stops and goes repeatedly for a long period of time.
- The accelerator pedal is continuously depressed for a long period of time.
- The engine performance is abnormal.
- Engine rpm is in the red zone.

- The driver starts driving by pushing the toggle switch up (RES+)/down (SET-) or depressing the accelerator pedal, after the vehicle is stopped by the Smart Cruise Control system with no other vehicle ahead.
- The driver starts driving by pushing the toggle switch up (RES+)/down (SET-) or depressing the accelerator pedal, after stopping the vehicle with a vehicle stopped far away in front.
- The Forward Collision-Avoidance Assist (FCA) is activated.
- The engine speed is in dangerous range.

Each of these actions will cancel the Smart Cruise Control operation. The Set Speed and Vehicle-to-Vehicle Distance on the LCD display will go off.

In a condition the Smart Cruise Control is cancelled automatically, the Smart Cruise Control will not resume even though the RES+ or SET- toggle switch is pushed.

# *i* Information

If the Smart Cruise Control is cancelled by other than the reasons mentioned, we recommend that the system be checked by an authorized HYUNDAI dealer.



#### **Smart Cruise Control cancelled**

If the system is cancelled, the warning chime will sound and a message will appear for a few seconds.

You must adjust the vehicle speed by depressing the accelerator or brake pedal according to the road condition ahead and driving condition.

Always check the road conditions. Do not rely on the warning chime.

# To resume Smart Cruise Control set speed

If any method other than the cruise toggle switch was used to cancel cruising speed and the system is still activated, the cruising speed will automatically resume when you push the toggle switch up (RES+) or down (SET-).

If you push the toggle switch up (RES+), the speed will resume to the recently set speed. However, if vehicle speed drops below 30 km/h (20 mph), it will resume when there is a vehicle in front of your vehicle.

# **i** Information

Always check the road conditions when you push the toggle switch up (RES+) to resume speed.

### To turn Cruise Control off



Pushing the CRUISE/ button.
 The cruise indicator will go off.

 If you wish not to use the cruise control system, always turn the system off by pushing the

CRUISE/ button.

#### **A** WARNING

Take the following precautions:

- Always set the vehicle speed under the speed limit in your country.
- If the Smart Cruise Control is left on, (\*\*) CRUISE indicator light in the instrument cluster is illuminated) the Smart Cruise Control can be activated unintentionally. Keep the Smart Cruise Control system off (\*\*) CRUISE indicator light OFF) when the Smart Cruise Control is not in use, to avoid inadvertently setting a speed.
- Use the Smart Cruise Control system only when traveling on open highways in good weather.
- Do not use the Smart Cruise Control when it may not be safe 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 a steep downhill or uphill
- When driving in windy areas
- When driving in parking lots
- When driving near crash barriers
- When driving on a sharp curve
- When driving with limited view (possibly due to bad weather, such as fog, snow, rain or sandstorm)
- When the vehicle sensing ability decreases due to vehicle modification resulting level difference of the vehicle's front and rear
- Unexpected situations may lead to possible accidents. Pay attention continuously to road conditions and driving even when the smart cruise control system is being operated.

#### **Smart Cruise Control Vehicle**to-Vehicle Distance

To set Vehicle-to-Vehicle Distance



When the Smart Cruise Control system is ON, you can set and maintain the distance from the vehicle ahead of you without pressing the accelerator or brake pedal.

Each time the button is pressed, the vehicle to vehicle distance changes as follows:

Distance 4 → Distance 3 → Distance 2

Distance 1 ←

For example, if you drive at 90 km/h (56 mph), the distance maintain as follows:

Distance 4 - approximately 52.5 m Distance 3 - approximately 40 m Distance 2 - approximately 32.5 m Distance 1 - approximately 25 m

# Information

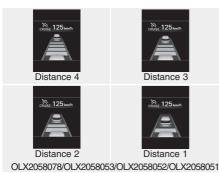
The distance is set to the last set distance when the system is used for the first time after starting the engine.

#### When the lane ahead is clear:



The vehicle speed will maintain the set speed.

# When there is a vehicle ahead of you in your lane:



- Your vehicle speed will slow down or speed up to maintain the selected distance.
- If the vehicle ahead speeds up, your vehicle will travel at a steady cruising speed after accelerating to the set speed.
- If distance from the front vehicle has been changed due to accelerating or decelerating of front vehicle, the distance on the LCD may be changed.

### **A** WARNING



When using the Smart Cruise Control System:

- The warning message appears and warning chime sounds if the vehicle is unable to maintain the selected distance from the vehicle ahead.
- If the warning message appears and warning chime sounds, depress the brake pedal to actively adjust the vehicle speed, and the distance to the vehicle ahead.

- Even if the warning message does not appear and warning chime does not sound, always pay attention to the driving conditions to prevent dangerous situations from occurring.
- Playing the vehicle audio system at high volume may offset the system warning sounds.

### **A** CAUTION



If the vehicle ahead (vehicle speed: less than 30km/h) disappears to the next lane, the warning chime will sound and a message "Watch for surrounding vehicles" will appear. Adjust your vehicle speed for vehicles or objects that can suddenly appear in front of you by depressing the brake pedal.

Always pay attention to the road condition ahead.

#### In traffic situation



Use switch or pedal to accelerate

 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. However, if the vehicle stops for more than 3 seconds, you must depress the accelerator pedal or push up the toggle switch (RES+) or push down the toggle switch (SET-) to start driving.  If you push the smart cruise control toggle switch (RES+ or SET-) while Auto Hold and advanced smart cruise control is operating the Auto Hold will be released regardless of accelerator pedal operation and the vehicle will start to move. The AUTO HOLD indicator changes from green to white. (if equipped with EPB (Electronic Parking Brake))

# Sensor to detect distance to the vehicle ahead



The Smart Cruise Control uses a sensor to detect distance to the vehicle ahead.

If the sensor is covered with dirt or other foreign matter, the vehicle to vehicle distance control may not operate correctly.

Always keep the sensor clean.

#### Warning message



#### Smart Cruise Control disabled. Radar blocked

When the sensor lens cover is blocked with dirt, snow, or debris, the Smart Cruise Control system operation may stop temporarily. If this occurs, a warning message will appear on the LCD display. Remove any dirt, snow, or debris and clean the radar sensor lens cover before operating the Smart Cruise Control system.

The Smart Cruise Control system may not properly activate, if the radar is totally contaminated, or if any substance is not detected after turning ON the engine (e.g. in an open terrain).

# **i** Information

For the SCC operation is temporarily stopped if the radar is blocked, but you wish to use cruise control mode (speed control function), you must convert to the cruise control mode (refer to "To convert to Cruise Control mode" in the following page.

# **!** CAUTION

- Do not apply license plate frame or foreign objects such as a bumper sticker or a bumper guard near the radar sensor. Doing so may adversely affect the sensing performance of the radar.
- Always keep the radar sensor and lens 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.
- Be careful not to apply unnecessary force on the radar sensor or sensor cover. If the sensor is forcibly moved out of proper alignment, the Smart Cruise Control system may not operate correctly. In this case, a warning message may not be displayed. We recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.
- If the front bumper becomes damaged in the area around the radar sensor, the Smart Cruise Control system may not operate properly. We recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.
- Use only genuine parts or the equivalent specified for your vehicle to repair or replace a damaged sensor or sensor cover. Do not apply paint to the sensor cover.



# Check Smart Cruise Control System The message will appear when the vehicle to vehicle distance control system is not functioning normally.

We recommend that you take your vehicle to an authorized HYUNDAI dealer and have the system checked.

#### To adjust the sensitivity of Smart Cruise Control



The sensitivity of vehicle speed when following the front vehicle to maintain the set distance can be adjusted. Go to the 'User Settings → Driver assistance → SCC response → Fast/Normal/Slow' on the LCD display. You may select one of the three stages you prefer.

#### - Fast:

Vehicle speed following the front vehicle to maintain the set distance is faster than normal speed.

- Normal:

Vehicle speed following the front vehicle to maintain the set distance is normal.

- Slow:

Vehicle speed following the front vehicle to maintain the set distance is slower than normal speed.

# **i** Information

The last selected speed sensitivity of the smart cruise control is remained in the system.

# To convert to Cruise Control mode

The driver may choose to only use the conventional Cruise Control mode (speed control function) by doing as follows:

- Turn the Smart Cruise Control System on (the cruise indicator light will be on but the system will not be activated).
- Push and hold the Vehicle-to-Vehicle Distance button for more than 2 seconds.
- 3. Choose between "Smart Cruise Control" and "Cruise Control".

When the system is canceled using the CRUISE/(5) button or the CRUISE button is used after the engine is turned on, the Smart Cruise Control mode will turn on.

#### **A** WARNING

When using the Cruise Control mode, you must manually adjust the distance to other vehicles by depressing the brake pedal. The system does not automatically adjust the distance to vehicles in front of you.

# **Limitations of the system**

The Smart Cruise Control system may have limits to its ability to detect distance to the vehicle ahead due to road and traffic conditions.

#### On curves

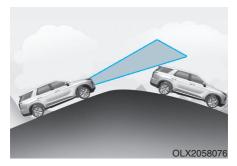


- The Smart Cruise Control system may not detect a moving vehicle in your lane, and then your vehicle could accelerate to the set speed. Also, the vehicle speed will decrease when the vehicle ahead is recognized suddenly.
- Select the appropriate set speed on curves and apply the brakes or accelerator pedal if necessary.



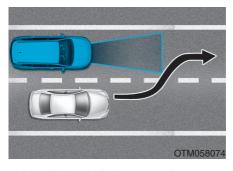
Your vehicle speed can be reduced due to a vehicle in the adjacent lane. Apply the accelerator pedal and select the appropriate set speed. Check to be sure that the road conditions permit safe operation of the Smart Cruise Control.

### On inclines



- During uphill or downhill driving, the Smart Cruise Control system may not detect a moving vehicle in your lane, and cause your vehicle to accelerate to the set speed. Also, the vehicle speed will rapidly decrease when the vehicle ahead is recognized suddenly.
- Select the appropriate set speed on inclines and apply the brake or accelerator pedal if necessary.

# Lane changing



- A vehicle which moves into your lane from an adjacent lane cannot be recognized by the sensor until it is in the sensor's detection range.
- The radar may not detect immediately when a vehicle cuts in suddenly. Always pay attention to the traffic, road and driving conditions.
- If a slower vehicle moves into your lane, your speed may decrease to maintain the distance to the vehicle ahead.
- If a faster vehicle which moves into your lane, your vehicle will accelerate to the set speed.

#### Vehicle recognition



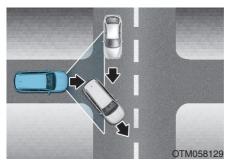
Some vehicles in your lane cannot be recognized by the sensor:

- Narrow vehicles such as motorcycles or bicycles
- Vehicles offset to one side
- Slow-moving vehicles or suddendecelerating vehicles
- Stopped vehicles
- Vehicles with small rear profile such as trailers with no loads

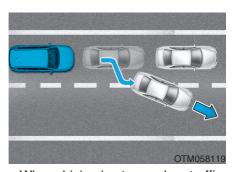
A vehicle ahead cannot be recognized correctly by the sensor if any of following occurs:

- When the vehicle is pointing upwards due to overloading in the luggage compartment
- While the steering wheel is operating
- When driving to one side of the lane
- When driving on narrow lanes or on curves

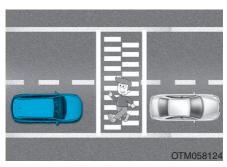
Apply the brake or accelerator pedal if necessary.



- Your vehicle may accelerate when a vehicle ahead of you disappears.
- When you are warned that the vehicle ahead of you is not detected, drive with caution.



 When driving in stop-and-go traffic, and a stopped vehicle in front of you merges out of the lane, the system may not immediately detect the new vehicle that is now in front of you. 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.



 Always look out for pedestrians when your vehicle is maintaining a distance with the vehicle ahead.



 Always be cautious for vehicles with higher height or vehicles carrying loads that sticks out from the back of the vehicle.

# **A** WARNING

When using the Smart Cruise Control take the following precautions:

- If an emergency stop is necessary, you must apply the brakes. The vehicle cannot be stopped at every emergency situation by using the Smart Cruise Control system.
- Keep a safe distance according to road conditions and vehicle speed. If the vehicle to vehicle distance is too close during a high-speed driving, a serious collision may result.
- Always maintain sufficient braking distance and decelerate your vehicle by applying the brakes if necessary.
- The Smart Cruise Control system cannot recognize a stopped vehicle, pedestrians or an oncoming vehicle. 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 the system's reaction or may cause the system 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 selected speed and vehicle to vehicle distance. The driver should not solely rely on the system but always pay attention to driving conditions and control your vehicle speed.
- The Smart Cruise Control system may not recognize complex driving situations so always pay attention to driving conditions and control your vehicle speed.

#### NOTICE

The Smart Cruise Control system may not operate temporarily due to:

- Electrical interference
- Modifying the suspension
- Differences of tire abrasion or tire pressure
- Installing different type of tires

# LEADING VEHICLE DEPARTURE ALERT (IF EQUIPPED)

The Leading Vehicle Departure Alert system alerts the driver of the departure of the vehicle in front when the vehicle is stopped and the Smart Cruise Control (SCC) system is in activation.

# System setting and operating conditions

### System setting

With the engine ON, the Leading Vehicle Departure Alert system turns on and gets ready to be activated when the 'User Settings  $\rightarrow$  Driver Assistance  $\rightarrow$  Driving assist  $\rightarrow$  Leading vehicle departure alert' is selected on the cluster. The system stops operation when the setting is deactivated. However, if the engine is turned off then on again, the system maintains the previous state.

# Operating conditions



While the Smart Cruise Control (SCC) system is in operation, your vehicle stops behind the vehicle in front when it stops. The message is displayed on the cluster within 3 seconds after the stop and the system will be in the standby position.

# System activation



If the driver does not take action for a certain period of time after the vehicle in front departs, the message is displayed on the cluster.

The vehicle departs automatically if the accelerator pedal is depressed or [RES +] or [SET -] switch is activated when there is a vehicle in front.

The Smart Cruise Control (SCC) system is deactivated if the accelerator pedal is depressed or [RES +] or [SET -] switch is activated when there is no vehicle in front.

# **A** WARNING

Always check the front of the vehicle and road conditions before departure.

#### 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 the second gear. Accelerate slowly to avoid unnecessary wheel spinning.
- Put sand, rock salt, tire chains or other non-slip materials under the wheels to provide additional traction while being stuck in ice, snow, or mud.

### WARNING

Downshifting with an a 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 56 km/h (35 mph).

# Information

The ESC system (if equipped) 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" in chapter 6.

# **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' headlamps.
- Keep your headlamps clean and properly aimed. Dirty or improperly aimed headlamps will make it much more difficult to see at night.
- Avoid staring directly at the headlamps 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 replacement" in chapter 7.
- Turn on your headlamps 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 replacement" in chapter 7.

# **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.

#### **A** 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.

### **A** 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 skids to occur.

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

#### A 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.

If you mount snow tires on your vehicle, make sure to use radial tires of the same size and load range 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.

# i Information

Do not install studded tires without first checking local and municipal regulations for possible restrictions against their use.

#### 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 Do not mount tire chains on vehicles equipped with aluminum wheels; if unavoidable use a wire type chain. If tire chains must be used, use genuine HYUNDAI parts or the equivalent specified for your vehicle 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.

#### **A** WARNING

The use of tire chains may adversely affect vehicle handling:

- Drive less than 30 km/h (20 mph) 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.

# *i* Information

- Install tire chains 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 30 km/h (20 mph)) 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:

- 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 0.5~1.0 km (0.3~0.6 miles).
- Do not use tire chains on vehicles equipped with aluminum wheels. If unavoidable, use a wire type chain.
- Use wire chains less than 15 mm (0.59 in) wide to prevent damage to the chain's connection.

#### **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 7. 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 the chapter 7. The battery charging level can be checked by an authorized HYUNDAI dealer or in a service station.

# Change to "winter weight" oil if necessary

In some regions during winter, it is recommended to use the "winter weight" oil with lower viscosity. For further information, refer to the chapter 8. When you are not sure about a type of winter weight oil, we recommend that you consult an authorized HYUNDAI dealer.

# Check spark plugs and ignition system

Inspect the spark plugs, as specified in the chapter 7. 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 shift button 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.

# TRAILER TOWING

We do not recommend using this vehicle for trailer towing.

#### **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.

# **Overloading**

# **A** WARNING

The Gross Axle Weight Rating (GAWR) and the Gross Vehicle Weight Rating (GVWR) for your vehicle are on the Certification Label attached to the driver's (or front passenger's) door. Exceeding these ratings can cause an accident or vehicle damage. You can calculate the weight of your load by weighing the items (and people) before putting them in the vehicle. Be careful not to overload your vehicle.

# What to do in an emergency

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#### HAZARD WARNING FLASHER





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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 whether your vehicle is running 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, we recommend that you 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 to P (Park), apply the parking brake, and place the ignition switch in the 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 changing a flat tire, follow the instructions provided later in this chapter.

# IF THE ENGINE WILL NOT START

# If the engine doesn't turn over or turns over slowly

- Be sure the shift button is in N (Neutral) or P (Park) if it is automatic transmission vehicle. The engine starts only when the shift button is in N (Neutral) or P (Park).
- Check the battery connections to be sure they are clean and tight.
- Turn on the interior light. If the light dims or goes out when you operate the starter, the battery is drained.

Do not push or pull the vehicle to start it. This could cause damage to your vehicle. See instructions for "Jump Starting" provided in this chapter.

# **!** CAUTION

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 engine turns over normally but doesn't start

 Check the fuel level and add fuel if necessary.

If the engine still does not start, we recommend that you call an authorized HYUNDAI dealer for assistance.

#### JUMP STARTING

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.

### **A** 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 ignition switch 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-volt power supply (battery or jumper system) to jump start your vehicle.
- Do not attempt to jump start your vehicle by push-starting.

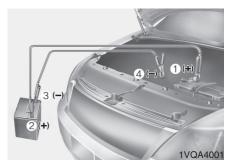
# **1** Information



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

- 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.
- Turn off all electrical devices such as radios, lights, air conditioning, etc. Put the vehicle in P (Park), and set the parking brakes. Turn both vehicles OFF.



- 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).
- 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).

- 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.
- 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, we recommend that you 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).
- 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. Put the vehicle in P (Park), and set the parking brake. If the air conditioning is ON, turn it OFF.
- 3. If engine coolant is running out under the vehicle or steam is coming out from the hood, stop the engine. Do not open the hood until the coolant has stopped running or the steaming has stopped. If there is no visible loss of engine coolant and no steam, leave the engine running and check to be sure the engine cooling fan is operating. If the fan is not running, turn the engine off.

### **▲** 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.

- Check for coolant leaking from the radiator, hoses or under the vehicle. (If the air conditioning had been in use, it is normal for cold water to be draining from it when you stop.)
- If engine coolant is leaking out, stop the engine immediately and we recommend that you call an authorized HYUNDAI dealer for assistance.

### **A** WARNING



NEVER remove the radiator 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 engine off and wait until the engine cools down. Use extreme care when removing the radiator 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.

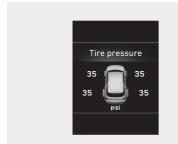
- If you cannot find the cause of the overheating, wait until the engine temperature has returned to normal. Then, if coolant has been lost, carefully add coolant to the reservoir to bring the fluid level in the reservoir up to the halfway mark.
- Proceed with caution, keeping alert for further signs of overheating. If overheating happens again, we recommend that you call an authorized HYUNDAI dealer for assistance.

# **A** CAUTION

- Serious loss of coolant indicates a leak in the cooling system and we recommend the system be checked 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) (IF EQUIPPED)





**Check tire pressure** 

OLX2048120L



OLX20680041

- (1) Low Tire Pressure Telltale/ TPMS Malfunction Indicator
- (2) Low tire pressure position telltale and tire pressure telltale (Shown on the LCD display)

- You can check the tire pressure in the Assist mode on the cluster.
  - Refer to the "LCD Display Modes" in chapter 3.
- Tire pressure is displayed after a few minutes of driving after initial engine 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 on the instrument cluster.
  - psi, kpa, bar (Refer to "LCD Modes" in chapter 3).

# Tire pressure monitoring system

# **A** 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 vour 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 telltale 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, we recommend that you 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 ignition switch is turned to the ON position or the engine is running.
- The TPMS malfunction indicator remains illuminated after blinking for approximately 1 minute.
- 3. The Low tire pressure position telltale remains illuminated.



# Low tire pressure telltale



Low tire pressure position telltale and tire pressure telltale

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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 light will indicate which tire is significantly under-inflated 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 a spare tire.

If you drive the vehicle for about 10 minutes at speeds above 25 km/h after replacing the low pressure tire with the spare tire, the following will happen:

 The TPMS malfunction indicator may blink for approximately 1 minute and then remain continuously illuminated because the TPMS sensor is not mounted on the spare wheel.

#### NOTICE

The spare tire is not equipped with a tire pressure sensor.

# **A** CAUTION

In winter or cold weather, the low tire pressure telltale may illuminate 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 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 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.

We recommend that the system be checked by an authorized HYUNDAI dealer.

#### NOTICE

If there is a malfunction with the TPMS, the low tire pressure position telltale will not be displayed even though the vehicle has an under-inflated tire.

# **A** CAUTION

- The TPMS malfunction indicator may blink for approximately 1 minute and then remain continuously illuminated if the vehicle is moving around electric power supply cables or radios transmitter such as at police stations, government and public offices, broadcasting stations, military installations, airports, or transmitting towers, etc. This can interfere with normal operation of the Monitoring Tire Pressure System (TPMS).
- The TPMS malfunction indicator may blink for approximately 1 minute and then remain continuously illuminated if snow chains are used or some separate electronic devices such as notebook computer, mobile charger, remote starter or navigation etc., are used in the vehicle.

This can interfere with normal operation of the Tire Pressure Monitoring System (TPMS).

# **Changing a tire with TPMS**

If you have a flat tire, the low Tire Pressure and Position telltales will come on. We recommend that the system be checked by an authorized HYUNDAI dealer.

# **A** CAUTION

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.

Each wheel is equipped with a tire pressure sensor mounted inside the tire behind the valve stem. You must use TPMS specific wheels. It is recommended that you have your tires serviced by an authorized HYUNDAI dealer.

If you drive the vehicle for about 10 minutes at speeds above 25 km/h after replacing the low pressure tire with the spare tire, the following will happen:

 The TPMS malfunction indicator may blink for approximately 1 minute and then remain continuously illuminated because the TPMS sensor is not mounted on the spare wheel.

You may not be able identify a tire with low pressure by simply looking at it. Always use a good quality tire pressure gauge to measure the tire's inflation pressure. Please note that a tire that is hot (from being driven) will have a higher pressure measurement than a tire that is cold (from sitting stationary for at least 3 hour and driven less than 1.6 km (1 mile) during 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.

A cold tire means the vehicle has been sitting for 3 hours and driven for less than 1.6 km (1 mile) in that 3 hour period.

### **A** 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 and with light force, and slowly move to a safe position off the road.

# **A** 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.

#### **A** WARNING

#### For EUROPE

- Do not modify the vehicle; it may interfere with the TPMS function.
- The wheels on the market do not have a TPMS sensor.
  - For your safety, we recommend that you use parts for replacement from an authorized HYUNDAI dealer.
- If you use the wheels on the market, use a TPMS sensor approved by a HYUNDAI dealer or the equivalent approved for your vehicle. If your vehicle is not equipped with a TPMS sensor or TPMS does not work properly, you may fail the periodic vehicle inspection conducted in your country.

- \*All vehicles sold in the EUROPE market during below period must be equipped with TPMS.
  - New model vehicle : Nov. 1, 2012 ~
  - Current model vehicle: Nov. 1, 2014~ (Based on vehicle registrations)

### IF YOU HAVE A FLAT TIRE (WITH SPARE TIRE)

### **A** WARNING

Changing a tire can be dangerous. Follow the instructions in this section when changing a tire to reduce the risk of serious injury or death.

# **!** CAUTION

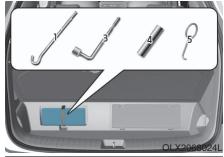
Be careful as you use the jack handle to stay clear of the flat end. The flat end has sharp edges that could cause cuts.

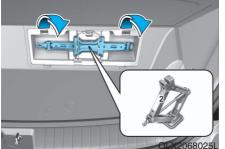
### **A** WARNING

Be cautious as the minimum ground clearance gets lower when you store the original tire in the bottom of the vehicle after replacing it with a spare tire.

In particular, drive below 30 km/h (18 mph) when driving over a speed bump and on uphill/downhill/uneven road.

#### **Jack and tools**





The jack, jack handle, wheel lug nut wrench and socket are stored in the luggage compartment.

Pull up the luggage box cover to reach this equipment.

- (1) Jack handle
- (2) Jack
- (3) Wheel lug nut wrench
- (4) Socket
- (5) Wheel cap removing tool

### Jacking instructions

The jack is provided for emergency tire changing only.

To prevent the jack from "rattling" while the vehicle is in motion, store it properly.

Follow jacking instructions to reduce the possibility of personal injury.

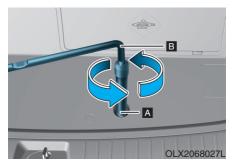
# Removing and storing the spare tire

Your spare tire is stored underneath your vehicle, directly below the cargo area.



To remove the spare tire:

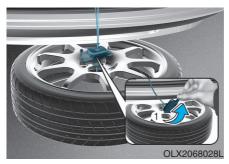
- 1. Open the tailgate.
- Find the plastic hex bolt cover and remove the cover with a coin or flat - blade screwdriver.



- 3. Connect the socket (A) and wheel lug nut wrench (B).
- 4. Loosen the bolt enough to lower the spare tire.

Turn the wrench counterclockwise until the spare tire reaches the ground.

After the spare tire reaches the ground, continue to turn the wrench counterclockwise, and draw the spare tire outside. Never rotate the wrench excessively, otherwise the spare tire carrier may be damaged.



Draw out the retainer guide (1) the through the center hole of spare tire. To store the spare tire:

- 1. Lay the tire on the ground with the valve stem facing up.
- Place the wheel under the vehicle and install the retainer guide and chain through the wheel center.
- 3. Turn the wrench clockwise until it clicks.

# **A** CAUTION

Ensure the spare tire retainer guide is properly aligned with the center of the spare tire to prevent the spare tire from "rattling".

Otherwise, it may cause the spare tire to fall off the carrier and lead to an accident.

# **Changing tires**

# **A** WARNING

A vehicle can slip or roll off of a jack causing serious injury or death to you or those nearby. Take the following safety precautions:

- Do not get under a vehicle that is supported by a jack.
- NEVER attempt to change a tire in the lane of traffic. ALWAYS move the vehicle completely off the road on level, firm ground away from traffic before trying to change a tire. If you cannot find a level, firm place off the road, call a towing service for assistance.
- Be sure to use the jack provided with the vehicle.
- ALWAYS place the jack on the designated jacking positions on the vehicle and NEVER on the bumpers or any other part of the vehicle for jacking support.

- Do not start or run the engine while the vehicle is on the jack.
- Do not allow anyone to remain in the vehicle while it is on the jack.
- Keep children away from the road and the vehicle.

Follow these steps to change your vehicle's tire:

- 1. Park on a level surface and apply the parking brake firmly.
- 2. Shift the shift button into P (Park).
- 3. Activate the hazard warning flasher.
- 4. Remove the wheel lug nut wrench, jack, jack handle, and spare tire from the vehicle.



5. Block both the front and rear of the tire diagonally opposite of the tire you are changing.

# **A** CAUTION

#### Changing a tire

- To prevent vehicle movement while changing a tire, always set the parking brake fully, and always block the wheel diagonally opposite the wheel being changed.
- We recommend that the wheels of the vehicle be chocked, and that no person remain in a vehicle that is being jacked.



Loosen the wheel lug nuts counterclockwise one turn each, but do not remove any nut until the tire has been raised off the ground.



7. Place the jack at the front or rear jacking position closest to the tire you are changing. Place the jack at the designated locations under the frame. The jacking positions are plates welded to the frame with two tabs and a raised dot to index with the jack.



8. Insert the jack handle into the jack and turn it clockwise, raising the vehicle until the tire just clears the ground. This measurement is approximately 30 mm (1.2 in). Before removing the wheel lug nuts, make sure the vehicle is stable and that there is no chance for movement or slippage.

9. Loosen the wheel nuts and remove them with your fingers. Slide the wheel off the studs and lay it flat so it cannot roll away. To put the wheel on the hub, pick up the spare tire, line up the holes with the studs and slide the wheel onto them. If this is difficult, tip the wheel slightly and get the top hole in the wheel lined up with the top stud. Then jiggle the wheel back and forth until the wheel can be slid over the other studs.

#### **A** WARNING

Wheels may have sharp edges. Handle them carefully to avoid possible severe injury. Before putting the wheel into place, be sure that there is nothing on the hub or wheel (such as mud, tar, gravel, etc.) that interferes with the wheel from fitting solidly against the hub.

If there is, remove it. If there is not good contact on the mounting surface between the wheel and hub, the wheel nuts could come loose and cause the loss of a wheel. Loss of a wheel may result in loss of control of the vehicle. This may cause serious injury or death.

- 10. To reinstall the wheel, hold it on the studs, put the wheel nuts on the studs and tighten them finger tight. The nuts should be installed with their tapered small diameter ends directed inward. Jiggle the tire to be sure it is completely seated, then tighten the nuts as much as possible with your fingers again.
- 11. Lower the vehicle to the ground by turning the wheel nut wrench counterclockwise.



Then position the wrench as shown in the drawing and tighten the wheel nuts. Be sure the socket is seated completely over the nut. Do not stand on the wrench handle or use an extension pipe over the wrench handle.

Go around the wheel tightening every other nut until they are all tight. Then double-check each nut for tightness. After changing wheels, we recommend that the system be checked by an authorized HYUNDAI dealer.

#### Wheel nut tightening torque:

Steel wheel & aluminium alloy wheel: 11~13 kgf.m (79~94 lbf.ft)

If you have a tire gauge, remove the valve cap and check the air pressure. If the pressure is lower than recommended, drive slowly to the nearest service station and inflate to the correct pressure. If it is too high, adjust it until it is correct. Always reinstall the valve cap after checking or adjusting tire pressure. If the cap is not replaced, air may leak from the tire. If you lose a valve cap, buy another and install it as soon as possible.

After you have changed wheels, always secure the flat tire in its place and return the jack and tools to their proper storage locations.

#### NOTICE

- Check the tire pressure as soon as possible after installing a spare tire. Adjust it to the recommended pressure.
- Check and tighten the wheel lug nuts after driving over 50 km if tires are replaced. Re-check the tire wheel lug nuts after driving over 1,000 km.

#### **!** CAUTION

Your vehicle has metric threads on the wheel studs and nuts. Make certain during wheel removal that the same nuts that were removed are reinstalled or, if replaced, that nuts with metric threads and the same chamfer configuration are used. Installation of a non-metric thread nut on a metric stud or vice-versa will not secure the wheel to the hub properly and will damage the stud so that it must be replaced.

Note that most lug nuts do not have metric threads. Be sure to use extreme care in checking for thread style before installing aftermarket lug nuts or wheels. If in doubt, we recommend that you consult an authorized HYUNDAI dealer.

#### **A** WARNING

#### Wheel studs

If the studs are damaged, they may lose their ability to retain the wheel. This could lead to the loss of the wheel and a collision resulting in serious injuries.

To prevent the jack, jack handle, wheel lug nut wrench and spare tire from rattling while the vehicle is in motion, store them properly.

#### **A** WARNING

Inadequate spare tire pressure

Check the inflation pressures as soon as possible after installing the spare tire. Adjust it to the specified pressure, if necessary. Refer to "Tires and wheels" in section 8.

## Use of compact spare tires (if equipped)

Compact spare tires are designed for emergency use only. Drive carefully on the compact spare tire and always follow the safety precautions.

#### **A** WARNING

To prevent compact spare tire failure and loss of control possibly resulting in an accident:

- Use the compact spare tire only in an emergency.
- NEVER operate your vehicle over 80 km/h (50 mph).
- Do not exceed the vehicle's maximum load rating or the load carrying capacity shown on the sidewall of the compact spare tire.
- Do not use the compact spare tire continuously. Repair or replace the original tire as soon as possible to avoid failure of the compact spare tire.

When driving with the compact spare tire mounted to your vehicle:

- Check the tire pressure after installing the compact spare tire.
   The compact spare tire should be inflated to 420 kPa (60 psi).
- Do not take this vehicle through an automatic car wash while the compact spare tire is installed.
- Do not use the compact spare tire on any other vehicle because this tire has been designed especially for your vehicle.
- The compact spare tire's tread life is shorter than a regular tire. Inspect your compact spare tire regularly and replace worn compact spare tires with the same size and design, mounted on the same wheel.
- Do not use more than one compact spare tire at a time.
- Do not tow a trailer while the compact spare tire is installed.

#### NOTICE

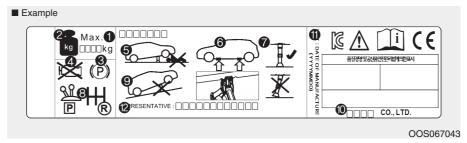
When the original tire and wheel are repaired and reinstalled on the vehicle, the lug nut torque must be set correctly. The correct lug nut tightening torque is 11~13 kgf·m (79~94 lbf·ft).

#### **A** CAUTION

To prevent damaging the compact spare tire and your vehicle:

- Drive slowly enough for the road conditions to avoid all hazards, such as a potholes or debris.
- Avoid driving over obstacles. The compact spare tire diameter is smaller than the diameter of a conventional tire and reduces the ground clearance approximately 25 mm (1 inch).
- Do not use tire chains on the compact spare tire. Because of the smaller size, a tire chain will not fit properly.
- Do not use the compact spare tire on any other wheels, nor should standard tires, snow tires, wheel covers or trim rings be used with the compact spare wheel. Do not suddenly accelerate or decelerate (0 ~ 40 km/h (0 ~ 25 mph)) in any driving mode. It may cause leakage of transfer oil.

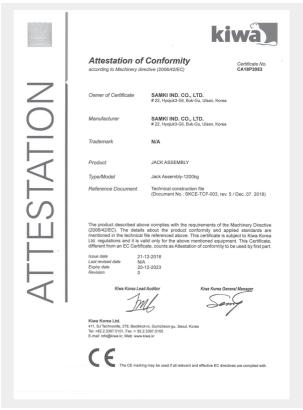
#### Jack label



- \* The actual Jack label in the vehicle may differ from the illustration. For more detailed specifications, refer to the label attached to the jack.
- 1. Model Name
- 2. Maximum allowable load
- 3. When using the jack, set your parking brake.
- 4. When using the jack, stop the engine.
- 5. Do not get under a vehicle that is supported by a jack.
- 6. The designated locations under the frame
- 7. When supporting the vehicle, the base plate of jack must be vertical under the lifting point.

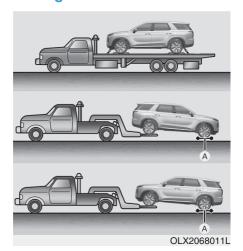
- Shift into Reverse gear on vehicles with manual transmission or move the shift lever to the P position on vehicles with automatic transmission.
- 9. The jack should be used on firm level ground.
- 10. Jack manufacturer
- 11. Production date
- 12. Representative company and address

#### **EC** Declaration of conformity for Jack



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## **TOWING**Towing service



[A]: Dollies

If emergency towing is necessary, we recommend having 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.

#### **A** CAUTION

The 4WD vehicle should never be towed with the wheels on the ground. This can cause serious damage to the transmission or the 4WD system.

On 2WD vehicles, if the transmission is operable in N (Neutral), it is only acceptable to tow the vehicle with the rear wheels on the ground (without dollies) and the front wheels off the ground. If the transmission is not shifted to N (Neutral), the vehicle should never be towed with the wheels on the ground.

If any of the loaded wheels or suspension components are damaged or the vehicle is being towed with the front wheels on the ground, use a towing dolly under the front wheels.

When being towed by a commercial tow truck and wheel dollies are not used, the front of the vehicle should always be lifted, not the rear.

#### **!** CAUTION

 Do not tow the vehicle with the front wheels on the ground as this may cause damage to the vehicle.



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 Do not tow with sling-type equipment. Use wheel lift or flatbed equipment.



#### **A** WARNING

If your vehicle is equipped with a rollover sensor, place the ignition switch in the OFF or ACC position when the vehicle is being towed. The side impact and curtain air bag may deploy if the sensor detects the situation as a rollover.

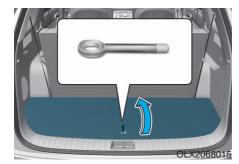
When towing your vehicle in an emergency without wheel dollies:

- 1. Place the ignition switch in the ACC position.
- 2. Place the shift button in N (Neutral).
- 3. Release the parking brake.

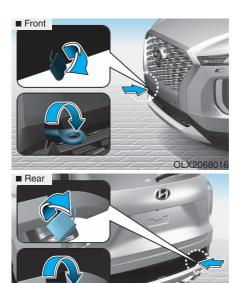
#### **!** CAUTION

Failure to place the shift button in N (Neutral) may cause internal damage to the transmission.

#### Removable towing hook



1. Open the tailgate, and remove the towing hook from the tool case.



Remove the hole cover pressing the lower part of the cover on the bumper.

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- 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, we recommend you 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.

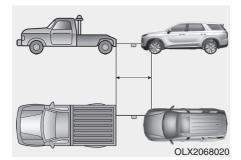
Use extreme caution when towing the vehicle with a cable or chain. A driver must be in the vehicle to steer it and operate the brakes.

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.

#### **A** 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.



- Use a towing cable or chain less than 5 m (16 feet) long. Attach a white or red cloth (about 30 cm (12 inches) 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 15 km/h (10 mph) and drive less than 1.5 km (1 mile) when towing to avoid serious damage to the transmission.

#### EMERGENCY COMMODITY (IF EQUIPPED)

Your vehicle is equipped with emergency commodities to help you respond to emergency situation.

#### Fire extinguisher

If there is small fire and you know how to use the fire extinguisher, follow these steps carefully.

- 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.
- Stand approximately 2.5 m (8 ft) 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, bandage 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 (if equipped)

Tires normally lose some air in dayto-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:

- 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" in chapter 8.
- 6. Reinstall the inflation valve cap.

### Maintenance

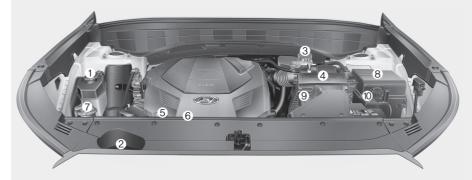
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#### **ENGINE COMPARTMENT**

■ Gasoline Engine (3.8 GDI)



- 1. Engine coolant reservoir
- 2. Radiator cap
- 3. Brake fluid reservoir
- 4. Air cleaner
- 5. Engine oil filler cap
- 6. Engine oil dipstick
- 7. Windshield washer fluid reservoir
- 8. Fuse box
- 9. Battery terminal [+]
- 10. Battery terminal [-]

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

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■ Gasoline Engine (3.5 MPI)



- 1. Engine coolant reservoir
- 2. Engine oil filler cap
- 3. Brake fluid reservoir
- 4. Air cleaner
- 5. Fuse box
- 6. Battery terminal [+]
- 7. Battery terminal [-]
- 8. Radiator cap
- 9. Engine oil dipstick
- 10. Windshield washer fluid reservoir

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

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#### ■ Diesel Engine (2.2 VGT)



- 1. Engine coolant reservoir
- 2. Windshield washer fluid reservoir
- 3. Radiator cap
- 4. Fuse box
- 5. Engine oil dipstick
- 6. Engine oil filler cap
- 7. Brake fluid reservoir
- 8. Air cleaner
- 9. Battery terminal [+]
- 10. Battery terminal [-]

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

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#### 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.

We recommend you 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 Service Passport.

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 Service Passport provided with the vehicle. If you're unsure about any servicing or maintenance procedure, we recommend that the system be serviced by an authorized HYUNDAI dealer.

#### OWNER MAINTENANCE

#### **A** 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, we recommend that the system be serviced 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 ignition switch 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.

#### **A** WARNING

#### Diesel Engine

Never manipulate or modify the injection system while running the diesel engine or within 30 seconds after turning OFF the diesel engine. The high-pressure pump, high-pressure pipes, rail, and injectors are still subject to high pressure immediately after stopping the diesel engine.

When the fuel leakage vents out, it may cause serious body injury. Any people, who are implanted with the artificial cardiac pacemaker, should remain away from the ECU or the wiring harness by at least 30 cm, while running the diesel engine. The high currents of the electronic engine control system produce a considerable amount of magnetic fields.

#### **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 tire low or under-inflated tires.

#### **A** WARNING

Be careful when checking your engine coolant level when 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: (i.e., every Spring and Autumn)

- 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 headlamp alignment.
- Check muffler, exhaust pipes, shields and clamps.
- Check 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.
- · 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 8 km (5 miles) in normal temperature or less than 16 km (10 miles) 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 traffic area
- Driving on uphill, downhill, or mountain road repeatedly
- Towing a trailer or using a camper, or 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 condition
- 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

- As it is normal for engine oil to be consumed during driving, the amount of engine oil should be checked regularly.
- The replacement cycle of engine oil is set by the period which the performance of the recommended engine oil is maintained. So, if recommended engine oil is not used, replace the engine oil according to the maintenance schedule under severe usage conditions.

#### Normal Maintenance Schedule (Gasoline Engine, for Europe)

MAINTENANCE INTERVALS MAINTENANCE		24	48	72	96	120	144	168	192	
	Miles x 1,000	20	40	60	80	100	120	140	160	
ITEM	Km x 1,000	30	60	90	120	150	180	210	240	
Drive belts *1		first, ins			(60,000 ı (20,000 n					
Engine oil and engine oil filter ** *2	3.5 MPI / 3.8 GD	28.5 MPI / 3.8 GD. Project every 15,000 km (10,000 miles) or 12 months								
Fuel additives *3		Add every 15,000 km (10,000 miles) or 12 months								
Air cleaner filter			R	I	R	I	R	I	R	
Spark plugs	3.5 MPI / 3.8 GDI		lace eve	ry 160,00	00 km (10	00,000 m	iles) *4 or	120 mon	iths	
Vapor hose and fuel filler cap			1		I		I		I	
Fuel tank air filter					l		ı		I	

or replace. I: Inspect and if necessary, adjust, correct,

R: Replace or change.

- \*\* : The engine oil level should be checked equiarly and maintained properly. Sperating with an insufficient amount of oil can damage the engine, and such damage is not covered by warranty.
- \*1: Inspect drive belt tensioner, idler and alternator pulley and if necessary correct or replace.
- \*2 : Check the engine oil level and leak ever 500 km 350 miles) or
- \*3: If good quality gasolines meet Europe Fuel san large EN228) or equiv tle of additive is recommended. Additives are available from your authorized HYUNDAI dealer along with information on how to use them. Do not mix other additive
- \*4: For your convenience, it can be replaced prior to interval when you do maintenance of other items.

#### Normal Maintenance Schedule (Gasoline Engine, for Europe) (Cont.)

MAINTENANCE Months		24	48	72	96	120	144	168	192
MAINTENANCE Miles x 1	,000	20	40	60	80	100	120	140	160
ITEM Km x 1,0	00	30	60	90	120	150	180	210	240
Fuel filter *5		I	I	1	I	I	I	I	I
Fuel lines, hoses and connections			I		I		I		I
Inspect and level adjustment and leak" every day.  Cooling system  At first spect 60,000 km (40,000 miles) or 48 months after the spect every 30,000 km (20,000 miles) or 24 months								nths	
Engine coolant *6	Engine coolant *6 replace at 210,000 km (120,000 miles) or 10 years : at, replace every 30,000 km (20,000 miles) or 24 months *7								
Battery condition			I	I	I	I	I	I	I
Brake lines, hoses and connections			1	I	I	I	I	I	I
Parking brake		I		I	I	I	I	ı	I
Brake fluid		R	T	R	R	R	R	R	R
Disc brakes and pads		I			I	I	I	I	I

I : Inspect and if necessary, adjust, correct ean or replace.

R : Replace or change.

<sup>\*5:</sup> The 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 matters like file! flow extriction, surging, loss of power, hard starting problem etc, replace the fuel filter in mediately regardless of maintenance screening and consult an authorized HYUNDAI dealer for details.

<sup>\*6:</sup> When adding coolant, use only deignized water of dater for your vehicle and never mix hard water in the coolant filled at the factory. An improper coolant mixture can result in serious manufaction or engine damage.

<sup>\*7:</sup> For your convenience, it can be replaced prior to it's interval when you do maintenance of other items.

#### Normal Maintenance Schedule (Gasoline Engine, for Europe) (Cont.)

MAINTENANCE	Months	24	48	72	96	120	144	168	192		
INTERVALS MAINTENANCE	Miles x 1,000	20	40	60	80	100	120	140	160		
ITEM	Km x 1,000	30	60	90	120	150	180	210	240		
Steering gear rack, linkage and boo	ots	I	I		I	I	I	I	I		
Driveshaft and boots		I	I		I	I	I	I	I		
Tire (pressure & tread wear)		I	I	1	I	I	I	I	I		
Front suspension ball joints		1			I	I	I	I	I		
Bolt and nuts on chassis and body				I	I	I	I	I	I		
Air conditioner refrigerant			1	I	I	I	I	I	I		
Air conditioner compressor			I	I	I	I	I	I	I		
Climate control air filter				R	R	R	R	R	R		
Automatic transmission fluid		No check, No service required									
Valve clearance *9				I			I				
Exhaust system		I	1		I	I	I	I	I		
Transfer case oil (4WD) *8			I		I		I		I		
Rear differential oil (4WD) *8			I		I		I		I		
Propeller shaft (4WD)		I	I	I	I	I	I	I	I		

I : Inspect and if necessary, adjust, correct, clash of replace. SE REMOVE R : Replace or change.

<sup>\*8:</sup> Transfer case oil and differential oil should be changed anytime they have been submerged in water.
\*9: Inspect for excessive valve noise and/or entine vibration and fourt if preessary. We recommend that the system be checked by an authorized HYUNDAI dealer.

#### Maintenance Under Severe Usage and Low Mileage Conditions (Gasoline Engine, for Europe)

The following items must be serviced more frequently on cars mainly used under severe and low mileage 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	1	Maintenance operation	Maintenance intervals	Driving condition
Engine oil and engine oil filter	3.5 MPI / 3.8 GDI	3	Replace ever who will be with the control of the co	A, B, C, D, E, F, G, H, I, J, K, L
Air cleaner filter			e more frequently adding on the condition	C, E
Spark plugs		R	depending on the condition	A, B, H, I, K
Steering gear rack, linkage and	d boots	1	Inspect more frequently depending on the condition	C, D, E, F, G
Front suspension ball joints		l	spect more frequently ding on the condition	C, D, E, F, G
Disc brakes and pads, calipers and rotors			In more frequently depend on the condition	C, D, E, G, H
Parking brake		ı	Inspect e frequently depending on the condition	C, D, G, H
Driveshaft and boots	Г		Inspect more frequently	C, D, E, F, G, H, I, J
			SE KEIVIUVE	

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Maintenance item	Maintenance operation	Maintenance intervals	Driving condition
Climate control air filter	R	Replace more frequently depending on the condition	C, E, G
Automatic transmission fluid	R	90,000 km (56,000 miles)	A, C, D, E, F, G, H, I, K
Rear differential oil (4WD)	R	Every 120,000 km (80,000 miles)	C, D, E, G, H, I, J
Transfer case oil (4WD)	R	Every 120,000 (80,000 miles)	-
Propeller shaft (4WD)		Inspection ore frequently deriving on the condition	C, D, E, F, G, H, I, J

#### Severe driving conditions

- A: Repeatedly driving short distance of less than 8 km (5 miles in normal temperature or less than 16 km (10 miles) in freez ing temperature
- B: Extensive engine idling or low speed driving for log tances
- C: Driving on rough, dusty, muddy, unpaved, gray or salt spread roads
- D: Driving in areas using salt or other corrosiv terials or in very cold weather
- E: Driving in the heavy dust conditions
- F: Driving in heavy traffic area

- riving on uphill, downhill, or mountain roads repeatedly Towing a trailer or using a camper, or driving with loads on e roof
- ag as patrol car, taxi, commercial car or vehicle towing
- ly driving under high speed or rapid acceleration/ dece
- K: Frequent king in stop-and-go conditions
- L : Engine oil base which is not recommended (Mineral type, Semi-synthetic, Lower grade spec, etc.)

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#### Normal Maintenance Schedule (Gasoline Engine, except Europe)

MAINTENANCE		12	24	36	48	60	72	84	96
INTERVALS MAINTENANCE	Miles x 1,000	10	20	30	40	50	60	70	80
ITEM	Km x 1,000	15	30	45	60	75	90	105	120
Drive belts *1			I		I		I		I
Engine oil and	Except Middle East *4, Central & S America *5	R	R		R	R	R	R	R
engine oil filter *2 *3	Representation (6,000 miles) or 12 months								
Fuel additives *6	Except Middle East Central & South America	dd every 15,000 km (10,000 miles) or 12 months							
i dei additives	For middle east *4, central & South America	Add every 10,000 km (6,000 miles) or 12 months							

I : Inspect and if necessary, adjust, correct, clean or

R: Replace or change.

\*1: Inspect drive belt tensioner, idler and altern alley and if necessal ect or replace.

\*2 : Check the engine oil level and leak every (350 miles) or before a long trip.

\*3: The engine oil level should be checked researly and maintained properly. Opening with an insufficient amount of oil can damage the engine, and such damage is not covered by warranty.

\*4: Middle East includes India, Iran, Libya, Algeria, Sudan, Morocco, Tunisia and Egypt.

\*5 : Central & South America includes Proz., et ...  $\Delta$  C ...

\*6: If good quality gasolines meet Europe Fuel standards (ENZZ8) or equivalents including fuel additives is not available, one bottle of additive is recommended. Additives are available from your animorized HYUNDAI dealer along with information on how to use them. Do not mix other additives

#### Normal Maintenance Schedule (Gasoline Engine, except Europe) (Cont.)

MAINTENANCE		12	24	36	48	60	72	84	96	
INTERVALS MAINTENANCE	Miles x 1,000	10	20	30	40	50	60	70	80	
ITEM	Km x 1,000	15	30	45	60	75	90	105	120	
Air cleaner filter	Except Middle East *4, Central & South America *5	I	I	R	I	I	R	I	I	
an cleaner liner	For middle eacentral & South ica *5	R	R		R	R	R	R	R	
Spark plugs	3.5 MPI / 3.8 GDI	Repl	ace	160,00	00 km (10	00,000 m	niles) *7 o	r 120 m	onths	
Vapor hose and fuel filler cap					I				I	
Fuel tank air filter			1		R		I		R	
Fuel filter *8			Ι		R		I		R	
Fuel lines, hoses and connections					I				I	
Cooling system			At fix spect 60,000 km (40,000 miles) or 48 months after that, in severy 30,000 km (20,000 miles) or 24 months							

I: Inspect and if necessary, adjust, correct, clean eplace.

R: Replace or change.

<sup>\*4:</sup> Middle East includes India, Iran, Libya, Algeria, Sudan, Morocco, Tunisia and Egypt.

<sup>\*5:</sup> Central & South America includes Brazil, etc.

<sup>\*7:</sup> For your convenience, it can be pared prior in it

<sup>\*8 :</sup> The fuel filter is considered to be maintenance for the periodic inspector is recommended for this maintenance schedule depends on fuel quality. If there are some important matters like fuel flow restriction, surging, loss of power, hard starting probair tenar ce schedule. We recommend that you consult an authorized lem etc, replace the fuel filter immedia HYUNDAI dealer for details.

#### Normal Maintenance Schedule (Gasoline Engine, except Europe) (Cont.)

MAINTENANCE		12	24	36	48	60	72	84	96		
INTERVALS MAINTENANCE	Miles x 1,000	10	20	30	40	50	60	70	80		
ITEM	Km x 1,000	15	30	45	60	75	90	105	120		
Engine coolant *9			At first, replace at 200,000 km (120,000 miles) or 120 months: after that, replace every 40,000 km (25,000 miles) or 24 months *7								
Battery condition	For Middle	Inspect every 100 km (6,200 miles) or 6 months									
Battery Condition	Except Mida t	I	I		I	I	I	I	I		
Brake lines, hoses and connections			I		I	I	I	I	I		
Parking brake (if equipped)		1	1	I	I	I	I	I	I		
Brake fluid				R	I	I	R	I	I		
Disc brakes and pads			1	I	I	I	I	I	I		
Steering gear rack, linkage and boo	ots			I	I	I	I	I	I		
Driveshaft and boots					I		I		I		
Tire (pressure & tread wear)		I		I	I	I	I	I	I		
Front suspension ball joints		Ι	I		I	I	I	I	I		
Bolt and nuts on chassis and body		I	I		I	I	I	I	I		
Air conditioner refrigerant		I	I		I	I	I	I	I		
Air conditioner compressor		I	I	I	I	I	I	I	I		

I : Inspect and if necessary, adjust\_correct\_clean or replace

R : Replace or change.

<sup>\*&</sup>lt;sup>7</sup> : For your convenience, it can be rep<del>laced pri</del>or to it's i<del>nter</del>val when you do maintenance of other items

<sup>\*9:</sup> When adding coolant, use only definited vater or off water to your vehicle and never mix hard water in the coolant filled at the factory. An improper coolant mixture can estit in sections malfunction or engine damage. For your convenience, it can be replaced prior to it's interval when you do maintenance of other items.

#### Normal Maintenance Schedule (Gasoline Engine, except Europe) (Cont.)

MAINTENANCE	Months	12	24	36	48	60	72	84	96		
MAINTENANCE	Miles x 1,000	10	20	30	40	50	60	70	80		
ITEM	Km x 1,000	15	30	45	60	75	90	105	120		
Climate control air filter		R	R	R	R	R	R	R	R		
Automatic transmission fluid	For Middle East		I		l		I		I		
Automatic transmission nuid	Except Middl	No. No service required									
Valve clearance *10							I				
Exhaust system			l l		I		I		I		
Trasnfer case oil (4WD) *11					I				I		
Rear differential oil (4WD) *11					I				I		
Propeller shaft (4WD)					I		I		I		

I : Inspect and if necessary, adjust, correct, clean or replace

R : Replace or change.

\*10 : Inspect for excessive valve noise and/or engine vill and adjust's assary. We recommend that the system be checked by an authorized HYUNDAI dealer.

\*11: Transfer case oil and differential oil should be reged anytime they have submerged in water.

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#### Maintenance Under Severe Usage and Low Mileage Conditions (Gasoline Engine, except Europe)

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	Except Middle East *1, Central & South America *2		7,500 km / miles) or 6 months	A, B, C, D, E,	
engine oil filter	For middle east *1, central & South America *2		5,00 (3,000 miles) or 6 months	F, G, H, I, J, K, L	
Air cleaner filter		R	Replace more frequently depending on the condition	C, E	
Spark plugs		R	Replace more frequently lepending on the condition	A, B, H, I, K	
Steering gear rack, linkage and boots			spect more frequently a string on the condition	C, D, E, F, G	
Front suspension ball joints		1	Insummore frequently depend on the condition	C, D, E, F, G	
Disc brakes and pads, calipers and rotors		I	Inspect the requently depending on the condition	C, D, E, G, H	
Parking brake		ASE	Inspect more frequently	C, D, G, H	
Driveshaft and boots			Inspect more frequently depending on the condition	C, D, E, F, G, H, I, J	

<sup>\*1:</sup> Middle East includes India, Iran, Libya, Algeria, Sudan, Morocco, Tunisia and Egypt.

<sup>\*2:</sup> Central & South America includes Brazil, etc.

Maintenance item	Maintenance operation	Maintenance intervals	Driving condition	
Climate control air filter	R	Replace more frequently depending on the condition	C, E, G	
Automatic transmission fluid	R	Every 100,000 km (62,000 miles)	A, C, D, E, F, G, H, I, K	
Transfer case oil (4WD)	R	Every 120,000 km (80,000 miles)	C, D, E, G, H, I, J	
Rear differential oil (4WD)		Every 1 0 km (80,000 miles)	-	
Propeller shaft (4WD)	1	ect more frequently sending on the condition	C, D, E, F, G, H, I, J	

#### Severe driving conditions

- A: Repeatedly driving short distance of less than 8 km (5 miles in normal temperature or less than 16 km (10 miles) in fr ing temperature
- B: Extensive engine idling or low speed driving for long ices
- C: Driving on rough, dusty, muddy, unpaved, gr or salt spread roads
- D : Driving in areas using salt or other corrosive materials or in very cold weather
- E: Driving in the heavy dust conditions PLEASE Remission heavy treffic area
- F: Driving in heavy traffic area

- Priving on uphill, downhill, or mountain roads repeatedly ing a trailer or using a camper, or driving with loads on the
- patrol car, taxi, commercial car or vehicle towing I : Drivi
- J : Frequen iving 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,

ver drade spec, etc.)

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#### Normal Maintenance Schedule (Diesel Engine, for Europe)

MAINTENANCE	Months	24	48	72	96	120	144	168	192
MAINTENANCE ITEM	Miles x 1,000	20	40	60	80	100	120	140	160
	Km x 1,000	30	60	90	120	150	180	210	240
Drive belts *1  At first, inspect at 90,000 km (60,000 miles) or 72 mont after that, every 30,000 km (20,000 miles) or 24 month									
Engine oil and engine oil filter ** *2 *3 *4		R	R	В	R	R	R	R	R
Air cleaner filter		I	R		R	I	R	I	R
Fuel lines, hoses and connections		1	L		I	I	I	I	I
Fuel filter cartridge *5			F	I	R	I	R	I	R
Cooling system			st, in	spect 60	,000 km (	40,000 m	niles) or 4	very day. 18 months or 24 mo	3

I: Inspect and if necessary, adjust, correct, clean or repla

- R: Replace or change.
- \*\*: The engine oil level should be checked regularly adintained properly serating with an insufficient amount of oil can damage the engine, and such damage is not cover a warranty.
- \*1: Inspect drive belt tensioner, idler and altern ulley and if necessary correction replace.
- \*2 : Check the engine oil level and leak every 500 km (350 miles) or before starting a long trip.
- \*3: This maintenance schedule depends on fuel quality. It is applicable only when using a qualified fuel <"EN590 or equivalent">.

  If the diesel fuel specifications don't meet the EN590 it must be replaced according to the severe maintenance schedule.
- \*4: If the recommended oil is not available, replace in the and argin to ill the very 21,000 km or 12 months.
- \*5: This maintenance schedule depends on fact quality. It is applicable only when using a qualified fuel <"EN590 or equivalent">.

  If the diesel fuel specifications don't meet the EN590 it must be replaced more frequently. If there are some important safety matters like fuel flow restriction, surging, or so power, than training problem etc., replace the fuel filter immediately regardless of maintenance schedule. We recommend that you consult an authorized HYUNDAI dealer for details.

#### Normal Maintenance Schedule (Diesel Engine, for Europe) (Cont.)

MAINTENANCE		24	48	72	96	120	144	168	192	
	Miles x 1,000	20	40	60	80	100	120	140	160	
	Km x 1,000	30	60	90	120	150	180	210	240	
Engine coolant *6		At first, replace at 210,000 km (120,000 miles) or 10 years : after that, replace every 30,000 km (20,000 miles) or 24 months *7								
Battery condition		I	I	1	I	I	I	I	I	
Brake lines, hoses and connections		1	I		I	I	I	I	I	
Parking brake (if equipped)		1	1		I	I	I	I	I	
Brake fluid			R	R	R	R	R	R	R	
Disc brakes and pads				I	I	I	I	I	I	
Steering gear rack, linkage and boo	ots			I	I	I	I	I	I	
Driveshaft and boots		I		I	I	I	I	I	I	
Bolt and nuts on chassis and body				1	I	I	I	I	I	
Tire (pressure & tread wear)			1		I	I	I	I	I	
Front suspension ball joints		I	I		I	I	I	I	I	

I : Inspect and if necessary, adjust, correct, cle

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R : Replace or change.

<sup>\*6:</sup> When adding coolant, use only deionized water or soft water for your vehicle and never mix hard water in the coolant filled at the factory. An improper coolant mixture can result in serious malfunction or engine damage....

<sup>\*7:</sup> For your convenience, it can be replaced prior to it and it and the when you do many france of other items.

#### Normal Maintenance Schedule (Diesel Engine, for Europe) (Cont.)

MAINTENANCE	Months	24	48	72	96	120	144	168	192
MAINTENANCE	Miles x 1,000	20	40	60	80	100	120	140	160
ITEM	Km x 1,000	30	60	90	120	150	180	210	240
Air conditioner refrigerant		I	I	I	I	I	I	I	I
Air conditioner compressor		I	I	I	I	I	I	I	I
Climate control air filter		R	R	R	R	R	R	R	R
Automatic transmission fluid		eck, No service required							
Exhaust system			1		I	I	I	I	I
Trasnfer case oil (4WD) *8					I		I		I
Rear differential oil (4WD) *8					I		I		I
Propeller shaft (4WD)				I	I	I	I	I	I

I: Inspect and if necessary, adjust, correct, clean or replace

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R : Replace or change.

<sup>\*8:</sup> Transfer case oil and differential oil should be chap anytime they been submerged in water.

#### Maintenance Under Severe Usage and Low Mileage Conditions (Diesel Engine, for Europe)

The following items must be serviced more frequently on cars mainly used under severe and low mileage 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 peration	Maintenance intervals	Driving condition
Engine oil and engine oil filter		Replace every 0 km (10,000 miles) months	A, B, C, D, E, F, G, H, I, J, K, L
Air cleaner filter	A	Figure 2 more frequently adding on the condition	C, E
Steering gear rack, linkage and boots	1	Anspect more frequently depending on the condition	C, D, E, F, G
Front suspension ball joints	I	Inspect more frequently pending on the condition	C, D, E, F, G
Disc brakes and pads, calipers and rotors		ect more frequently departs on the condition	C, D, E, G, H
Parking brake		Insplantation ore frequently depending 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

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Maintenance item	Maintenance operation	Maintenance intervals	Driving condition
Climate control air filter	R	Replace more frequently depending on the condition	C, E, G
Automatic transmission fluid (if equipped)	R	Every 90,000 km (60,000 miles)	A, C, D, E, F, G, H, I, K
Transfer case oil (4WD)		Every 120,000 80,000 miles)	C, D, E, G, H, I, J
Rear differential oil (4WD)	R	Every 12 km (80,000 miles)	-
Propeller shaft (4WD)	1	ct more frequently anding on the condition	C, D, E, F, G, H, I, J

#### Severe driving conditions

- A: Repeatedly driving short distance of less than 8 km (5 mile in normal temperature or less than 16 km (10 miles) in fring temperature
- B : Extensive engine idling or low speed driving for tances
- C : Driving on rough, dusty, muddy, unpaved, garded or salt spread roads
- D : Driving in areas using salt or other corrosive materials or in very cold weather
- E: Driving in heavy dust condition

- ing in heavy traffic area
- G: D. on uphill, downhill, or mountain roads repeatedly
- H: Town ailer or using a camper, or driving with loads on the root
- 1 : Driving as car, taxi, commercial car 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.)

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#### Normal Maintenance Schedule (Diesel Engine, except Europe)

MAINTENANCE	Months	12	24	36	48	60	72	84	96
MAINTENANCE	Miles x 1,000	10	20	30	40	50	60	70	80
ITEM Km x 1,000		15	30	45	60	75	90	105	120
Drive belts *1		At first, inspect at 80,000 km (50,000 miles) or 48 months, after that, every 2000 km (12,500 miles) or 12 months							
Engine oil and engine oil filter *2 *3		Replace evo ,000 km (6,000 miles) or 12 months							
Air cleaner filter	Except Middle East	I			I	I	R	I	I
All clearler litter	For Middle East	R	F	R	R	R	R	R	R
Fuel lines, hoses and connections					I		I		I
Fuel filter cartridge *4					R		I		R

I: Inspect and if necessary, adjust, correct, clean or replace.

R : Replace or change.

\*1: Inspect drive belt tensioner, idler and alternator pulley and necessary rect or replace.

\*2 : Check the engine oil level and leak every 500 km / and les) or before and a long trip.

\*3 : The engine oil level should be checked regularly againtained properly. String with an insufficient amount of oil can damage the engine, and such damage is not cover a warranty.

\*4: This maintenance schedule depends on fuel party. It is applicable only when a qualified fuel <"EN590 or equivalent">. If the diesel fuel specifications don't meet the EN590, it must be replaced more frequently. HYUNDAI recommends "every 7,500km inspection, every 15,000km replacement". 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. We recommend that you consult an authorized HYUNDAI dealer for details.

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### Normal Maintenance Schedule (Diesel Engine, except Europe) (Cont.)

MAINTENANCE		12	24	36	48	60	72	84	96
INTERVALS MAINTENANCE	Miles x 1,000	10	20	30	40	50	60	70	80
ITEM	Km x 1,000	15	30	45	60	75	90	105	120
Cooling system		Inspect "Coolant level adjustment and leak" every day.  At first, inspect 60 cm 0 km (40,000 miles) or 48 months after that, inspect every 0,000 km (20,000 miles) or 24 months							3
Engine coolant *6		At first, replace 2,000 km (120,000 miles) or 120 months: effer that, replace ery 40,000 km (25,000 miles) or 24 months *5							
Battery condition For Middle East		Insr /ery 10,000 km (6,200 miles) or 6 months							
Battery condition	Except Middle East			l I	I	I	I	I	I
Brake lines, hoses and connections	3			I	I	I	I	I	I
Parking brake				I	I	I	I	I	I
Brake fluid				I	I	I	I	I	I
Disc brakes and pads		1	1		I	I	R	I	I
Steering gear rack, linkage and boots			I		I	I	I	I	I
Driveshaft and boots			I		I		I		I
Tire (pressure & tread wear)		I	I	I	I	I	I	I	I

I: Inspect and if necessary, adjust, correct, clean or replace.

R: Replace or change.

<sup>\*5:</sup> For your convenience, it can be replaced pror to its imprian when you do natintenance of other items.
\*6: When adding coolant, use only deionized water or soft water for your vehicle and never mix hard water in the coolant filled at the factory. An improper coolant mixture can result in serious malfunction or engine damage. For your convenience, it can be replaced prior to it's interval when you do intite ance o

### Normal Maintenance Schedule (Diesel Engine, except Europe) (Cont.)

	12	24	36	48	60	72	84	96
Miles x 1,000	10	20	30	40	50	60	70	80
Km x 1,000	15	30	45	60	75	90	105	120
	I	I	I	I	I	I	I	I
dy	I	I	I		I	I	I	I
Air conditioner refrigerant		I	I	1	I	I	I	I
Air conditioner compressor		I			I	I	I	I
		R		R	R	R	R	R
For Middle East				I		I		I
Except Middle East	No check, No service required							
Exhaust system				I		I		I
Trasnfer case oil (4WD) *7				I				I
Rear differential oil (4WD) *7				I				I
Propeller shaft (4WD)		I		I		I		I
	dy For Middle East	Miles x 1,000 10 Km x 1,000 15 dy	Miles x 1,000 10 20  Km x 1,000 15 30  I I I  I I  I I  For Middle East	Miles x 1,000 10 20 30  Km x 1,000 15 30 45  I I I I  I I I  I R  For Middle East	Miles x 1,000 10 20 30 40  Km x 1,000 15 30 45 60  I I I I I  I I I I  R R  For Middle East	Miles x 1,000 10 20 30 40 50  Km x 1,000 15 30 45 60 75  I I I I I I  I I I I  For Middle East I I	Miles x 1,000 10 20 30 40 50 60  Km x 1,000 15 30 45 60 75 90  I I I I I I I I I  Oy I I I I I I I I  R R R R R  For Middle East	Miles x 1,000 10 20 30 40 50 60 70  Km x 1,000 15 30 45 60 75 90 105  I I I I I I I I I  Oy I I I I I I I I I  R R R R R R  For Middle East

I : Inspect and if necessary, adjust, correct, clear

# PLEASE REMOVE THIS PAGE

R : Replace or change.

<sup>\*7:</sup> Transfer case oil and differential oil should be changed anytime they have been submerged in water.

### Maintenance Under Severe Usage and Low Mileage Conditions (Diesel Engine, except Europe)

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 peration	Maintenance intervals	Driving condition
Engine oil and engine oil filter		5,000 km / miles) or 6 months	A, B, C, D, E, F, G, H, I, J, K, L
Air cleaner filter	A	ce more frequently anding on the condition	C, E
Steering gear rack, linkage and boots	1	Inspect more frequently depending on the condition	C, D, E, F, G
Front suspension ball joints	1	Inspect more frequently pending on the condition	C, D, E, F, G
Disc brakes and pads, calipers and rotors		ect more frequently de ag on the condition	C, D, E, G, H
Parking brake (if equipped)		Inspector ore frequently depending 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
Climate control air filter	FASF	Replace more frequently  Replace more frequently  Replace more frequently	C, E, G

# THIS PAGE

Maintenance item	Maintenance operation	Maintenance intervals	Driving condition
Automatic transmission fluid (if equipped)	R	Every 100,000 km (62,000 miles)	A, C, D, E, F, G, H, I, K
Transfer case oil (4WD)	R	Every 120,000 km (80,000 miles)	C, D, E, G, H, I, J
Rear differential oil (4WD)	R	Every 120,00 (80,000 miles)	-
Propeller shaft (4WD)		Instruction ore frequently decreased on the condition	C, D, E, F, G, H, I, J

### Severe driving conditions

- A : Repeatedly driving short distance of less than 8 km (5 miles) in normal temperature or less than 16 km (10 miles) in freezing temperature
- B: Extensive engine idling or low speed driving for long dista
- C : Driving on rough, dusty, muddy, unpaved, gravele salt spread roads
- D : Driving in areas using salt or other corrosive very cold weather
- E : Driving in heavy dust conditions
- F: Driving in heavy traffic area

- wing on uphill, downhill, or mountain roads repeatedly wing a trailer or using a camper, or driving with loads on the
- 1 : Dhannas patrol car, taxi, commercial car or vehicle towing
- J : Frequency driving under high speed or rapid acceleration/
- K : Frequently a in stop-and-go conditions
- L : Engine oil usage which is not recommended (Mineral type, Semi-synthetic, Lower grade spec, etc.)

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#### 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.

#### **Drive belts**

Inspect all drive belts for evidence of cuts, cracks, excessive wear or oil saturation and replace if necessary. Drive belts should be checked periodically for proper tension and adjusted as necessary.

### **!** CAUTION

When you are inspecting the belt, place the ignition switch to the OFF or ACC position.

# Fuel lines, fuel hoses and connections

Check the fuel lines, fuel hoses and connections for leakage and damage. We recommend that the fuel lines, fuel hoses and connections be replaced by an authorized HYUNDAI dealer.

#### **Fuel filter (cartridge)**

A clogged-up fuel filter may limit the vehicle driving speed, damage the emission system, and cause the hard starting. When a considerable amount of foreign substances are accumulated in the fuel tank, the fuel filter should be replaced.

Upon installing a new fuel filter, operate the diesel engine for several minutes, and check the connections for any leakages. We recommend you to have the fuel filter replaced by an authorized HYUNDAI dealer.

### Vapor hose and fuel filler cap

The vapor hose and fuel filler cap should be inspected at those intervals specified in the maintenance schedule. Make sure that a new vapor hose or fuel filler cap is correctly replaced.

# Vacuum crankcase ventilation hoses (if equipped)

Inspect the surface of hoses for evidence of heat and/or mechanical damage. Hard and brittle rubber, cracking, tears, cuts, abrasions, and excessive swelling indicate deterioration. Particular attention should be paid to examine those hose surfaces nearest to high heat sources, such as the exhaust manifold.

Inspect the hose routing to ensure that the hoses do not come in contact with any heat source, sharp edges or moving component which might cause heat damage or mechanical wear. Inspect all hose connections, such as clamps and couplings, to make sure they are secure, and that no leaks are present. Hoses should be replaced immediately if there is any evidence of deterioration or damage.

#### Air cleaner filter

We recommend that the air cleaner filter be replaced by an authorized HYUNDAI dealer.

# **Spark plugs** (for Gasoline Engine)

Make sure to install new spark plugs of the correct heat range.

When assembling parts, be sure to wipe out foreign substances 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.

#### **A** WARNING

Do not disconnect and inspect spark plugs when the engine is hot. You may burn yourself.

# Valve clearance (for Gasoline Engine)

Inspect excessive valve noise and/or engine vibration and adjust if necessary. We recommend that the system be serviced by an authorized HYUNDAI dealer.

#### **Cooling system**

Check the cooling system parts, such as radiator, coolant reservoir, hoses and connections for leakage and damage. Replace any damaged parts.

### **Engine coolant**

The coolant should be changed at the intervals specified in the maintenance schedule.

#### **Automatic transmission fluid**

Automatic transmission fluid should not be checked under normal usage conditions.

We recommend that the automatic transmission fluid is changed by an authorized HYUNDAI dealer according to the maintenance schedule.

# Information

Automatic transmission fluid color is red when new.

As the vehicle is driven, the automatic transmission fluid will begin to look darker.

This is a normal condition. It does not need to be replaced based on the color change.

#### NOTICE

The use of a non-specified fluid could result in transmission malfunction and failure.

Use only specified automatic transmission fluid.

(Refer to "Recommended lubricants and capacities" in chapter 8.)

#### **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 "MIN" and "MAX" marks on the side of the reservoir. Use only hydraulic brake fluid conforming to DOT 3 or DOT 4 specification.

## Parking brake

Inspect the parking brake system.

Refer to page 7-13 ( new numbering), please remove the rectangle box

# Brake pads, calipers and rotors

Check the pads for excessive wear, discs for run out and wear, and calipers for fluid leakage.

For more information on checking the pads or lining wear limit, refer to the HYUNDAL b site.

(http://service.hyundai-motor.com)

#### **Suspension mounting bolts**

Check the suspension connections for looseness or damage. Retighten to the specified torque.

# Steering gear rack, linkage & boots/lower arm ball joint

With the vehicle stopped and engine 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.

#### **Drive shafts and boots**

Check the drive shafts, boots and clamps for cracks, deterioration, or damage. Replace any damaged parts and, if necessary, repack the grease.

# Air conditioning refrigerant/compressor

Check the air conditioning lines and connections for leakage and damage.

#### **ENGINE OIL**

# Checking the engine oil level (Gasoline engine)

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.
- Be sure the vehicle is on the level ground in P (Park) with the parking brake set. If possible, block the wheels.
- 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 reinsert it fully.

- 6. Pull the dipstick out again and check the level.
- 7. If the oil level is below L, add enough oil to bring the level to F.

### **A** WARNING

#### **Radiator hose**

Be very careful not to touch the radiator hose when checking or adding the engine oil as it may be hot enough to burn you.

#### NOTICE

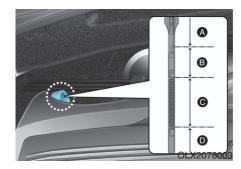
To prevent damage to your engine:

- Do not spill engine oil when adding or changing engine oil.
   Wipe off spilled oil immediately.
- The engine oil consumption may increase while you break in a new vehicle and it will be stabilized after driving 6,000 km (4,000 miles).
- 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.



Use only the specified engine oil. (Refer to "Recommended lubricants and capacities" in chapter 8.)

# Checking the engine oil level (Diesel Engine)



Range	Required action
А	Recommend to contact an authorized HYUNDAI dealer.
В	Do not refill engine oil.
С	Normal. You may add engine oil as long as the oil level does not go above the C range.
D	You must add oil and make sure that the oil level is in the C Range.

- 1. Follow all of the oil manufacturer's precautions.
- Be sure the vehicle is on the level ground in P (Park) with the parking brake set. If possible, block the wheels.
- Turn the engine on and allow the engine to reach normal operating temperature.
- 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.
- Wipe the dipstick clean and reinsert it fully.
- 6. Pull the dipstick out again and check the level. The level should be in the C range.



7. If the level is in the D range, add enough engine oil to bring the level up the range.

Use only the specified engine oil. (Refer to "Recommended lubricants and capacities" in chapter 8.)

#### NOTICE

To prevent damage to your engine:

- Do not spill engine oil when adding or changing engine oil.
   Wipe off spilled oil immediately.
- The engine oil consumption may increase while you break in a new vehicle and it will be stabilized after driving 6,000 km (4,000 miles).
- 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



We recommend that the engine oil and filter be replaced by an authorized HYUNDAI dealer according to 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 purpose of the maintenance schedule for engine oil replacement is to prevent oil deterioration and it is irrelevant to oil consumption. Check and refill engine oil regularly.

#### **A** WARNING

Used engine oil may cause irritation or cancer of the skin if left in contact with the skin for prolonged periods of time. Used engine oil contains chemicals that have caused cancer in laboratory animals. Always protect your skin by washing your hands thoroughly with soap and warm water as soon as possible after handling used oil.

#### **ENGINE 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 concentration level at least once a year, at the beginning of the winter season, and before traveling to a colder climate.

#### NOTICE

- 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.
- Do not drive with no engine coolant. It may cause water pump failure and engine seizure, etc.

# Checking the engine coolant level

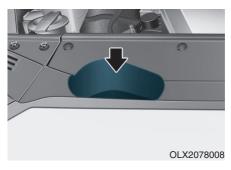


Check the condition and connections of all cooling system hoses and heater hoses. Replace any swollen or deteriorated hoses.

The coolant level should be filled between MAX and MIN (or F (Full) and L (Low)) marks on the side of the coolant reservoir when the engine is cool.

If the coolant level is low, add enough distilled (deionized) water. Bring the level to MAX, (or F (Full)) but do not overfill.

If frequent additions are required, we recommend that the system be inspected by an authorized HYUNDAI dealer.



## **A** WARNING



Never remove the radiator 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 engine off and wait until the engine cools down. Use extreme care when removing the radiator 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.

#### **A** 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.

### Recommended engine coolant

- When adding coolant, use only distilled (deionized) water for your vehicle and never mix hard water in the coolant filled at the factory. An incorrect coolant mixture can result in serious malfunction or engine damage.
- The engine in your vehicle has aluminum engine parts and must be protected by an ethylene-glycol with phosphate based 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 mixture percentage, refer to the following table.

Ambient Temperature	Mixture Percentage (volume)					
remperature	Antifreeze	Water				
-15°C (5°F)	35	65				
-25°C (-13°F)	40	60				
-35°C (-31°F)	50	50				
-45°C (-49°F)	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 -35°C (-31°F) and higher.

### Changing the engine coolant

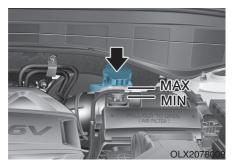
We recommend that coolant be changed by an authorized HYUNDAI dealer according to the Maintenance Schedule at the beginning of this chapter.

#### NOTICE

To prevent damage to engine parts, put a thick towel around the radiator cap before refilling the coolant to prevent the coolant from overflowing into engine parts, such as the alternator.

#### **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 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, we recommend that the system be checked by an authorized HYUNDAI dealer.

# Information

Use only the specified brake fluid. Refer to "Recommended lubricants and capacities" in chapter 8.

# Information

Before removing the brake filler cap, read the warning on the cap. (if equipped)

## information

Clean the filler cap before removing. Use only DOT3 or DOT4 brake fluid from a sealed container.

#### **▲** WARNING

If the brake system requires frequent additions of fluid this could indicate a leak in the brake system. We recommend that the vehicle be inspected by an authorized HYUNDAI dealer.

#### **A** WARNING

Do not allow brake fluid to come in contact with your eyes. If brake fluid comes in contact with 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 paint damage will result.
- Brake fluid, which has been exposed to open air for an extended time should never be used as its quality cannot be guaranteed. It should be disposed of properly.
- Don't put in the wrong kind of fluid. A few drops of mineralbased oil, such as engine oil, in your brake system can damage system parts.

#### **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 if washer fluid is not available. However, use washer solvent with antifreeze characteristics in cold climates to prevent freezing.

#### **A** 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 flames 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 poisonous to humans and animals.
- Keep washer fluid away from children and animals.

# FUEL FILTER (FOR DIESEL) Draining water from fuel filter

The fuel filter in the diesel engine operates the critical function of separating water from the fuels and preventing accumulating of water in the base.

When enough water is accumulated inside the fuel filter, the warning light ( $\frac{1}{9}$ ) illuminates with the ignition switch in the ON position.

In this case, we recommend you to have the system checked by an authorized HYUNDAI dealer.

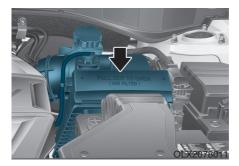
#### NOTICE

When the accumulated water is not drained at the proper timing, water may permeate in the fuel filter, damaging the major vehicle components, such as the fuel system.

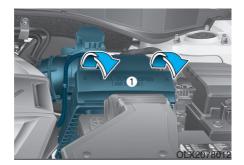
## Fuel filter cartridge replacement

We recommend the fuel filter cartridge be replaced by an authorized HYUNDAI dealer according to the Maintenance Schedule at the beginning of this chapter.

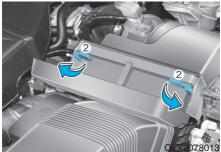
# **AIR CLEANER**Filter replacement

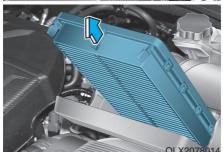


The air cleaner filter can be cleaned for inspection using compressed air. Do not attempt to wash or to rinse it, as water will damage the filter. If soiled, the air cleaner filter must be replaced.



1. Pull down the air cleaner filter cover (1).





- 2. Wipe the inside of the air cleaner.
- 3. Pull down the lever to the UNLOCK position.
- 4. Replace the air cleaner filter.
- 5. Reassemble the air cleaner cover in the reverse order.

# **i** Information

If the vehicle is operated in extremely dusty or sandy areas, replace the element more often than the usual recommended intervals (refer to "Maintenance Under Severe Usage Conditions" 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 specified for your vehicle. Use of parts without the matching quality could damage the air flow sensor.

### **CLIMATE CONTROL AIR FILTER**

### **Filter inspection**

If the vehicle is operated in the severely air-polluted cities or on dusty rough roads for a long period, it should be inspected more frequently and replaced earlier. When you, the owner, replace the climate control air filter, replace it performing the following procedure, and be careful to avoid damaging other components.

Replace the filter according to the Maintenance Schedule.



2. Remove the support strap (1).



- 4. Replace the climate control air filter.
- Reassemble in the reverse order of disassembly.

#### Filter replacement



1. With the glove box open, remove the stoppers on both sides.



Remove the climate control air filter case while pressing the lock on right side of the cover.

#### NOTICE

Install a new climate control air filter in the correct direction with the arrow symbol (\$\psi\$) 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.

# i Information

Commercial hot waxes applied by automatic car washes have been known to make the windshield difficult to clean.

# Information

Wiper blades are a consumable item and normal wear of the wipers may not be covered by your vehicle warranty.

### 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.

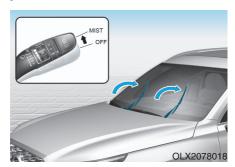
### NOTICE

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.

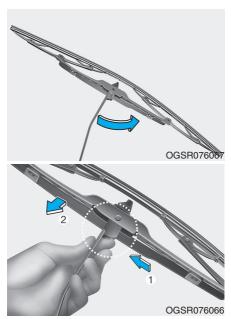
# Front windshield wiper service positions



This vehicle has a "hidden" wiper design which means that the wipers cannot be lifted when they are in their bottom resting position.

- 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.

#### Blade replacement



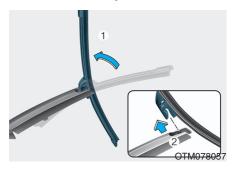
- 1. Lift up the wiper blade clip. Then lift up the wiper blade.
- 2. While pushing the lock (1), pull down the wiper blade (2).



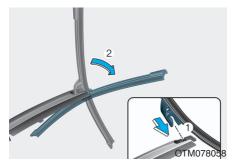
- 3. Remove the wiper blade from the wiper arm.
- 4. Install a new wiper blade assembly in the reverse order of removal.
- 5. Return the wiper arm on the windshield.

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#### Rear window wiper blade



- Raise the wiper arm and then rotate the wiper blade assembly (1).
- 2. Pull out the wiper blade assembly (2).



- 3. Install the new blade assembly by inserting the center part into the slot in the wiper arm until it clicks into place (1).
- 4. Make sure the blade assembly is installed firmly by trying to pull it slightly.
- 5. Rotate back the blade assembly so that it aligns with the wiper arm (2).

To prevent damage to the wiper arms or other components, we recommend that the wiper blades be replaced by an authorized HYUNDAI dealer.

#### **BATTERY**

### **A** 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 ignition switch is in the ON position.

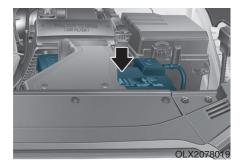
#### NOTICE

- 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.

#### NOTICE

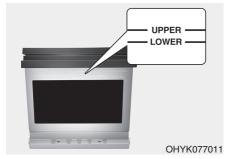
If you connect unauthorized electronic devices to the battery, the battery may be discharged. Never use unauthorized devices.

#### 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.

i Information - For batteries marked with UPPER and LOWER

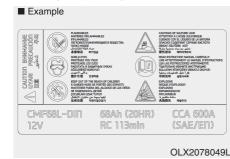


If your vehicle is equipped with a battery marked with LOWER (MIN) and UPPER (MAX) on the side, you should check the electrolyte level.

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, we recommend you to contact an authorized HYUNDAI dealer for better battery service.

#### **Battery capacity label**



The actual battery label in the vehicle may differ from the illustration.

- 1. CMF68L-DIN: The HYUNDAI model name of battery
- 2. 12V: The nominal voltage
- 3. 68Ah (20HR) : The nominal capacity (in Ampere hours)

7-30

- 4. RC 113min : The nominal reserve capacity (in min.)
- 5. CCA 600A (SAE/EN): The cold-test current in amperes

#### **Battery recharging**

#### By battery charger

Your vehicle has a maintenance-free, calcium-based battery.

- If the battery becomes discharged in 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 electric load while the vehicle is being used, recharge it at 20-30A for two hours.

#### **A** 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 place the Engine Start/ Stop button to the OFF position.
- 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.
- Always use a genuine HYUNDAI approved battery or the equivalent specified for your vehicle when you replace the battery.

## **A** CAUTION

#### AGM battery (if equipped)

- Absorbent Glass Matt (AGM) batteries are maintenancefree and we recommend that the AGM battery be 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, we recommend that you 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 6 for more information on jump starting procedures.

## Information



An inappropriately disposed of battery can be harmful to the environment and human health.

Dispose of the battery according to your local law(s) or regulations.

#### **Reset items**

The following items may need to be reset after the battery has been discharged or the battery has been disconnected.

- Auto up/down window
- Sunroof
- Trip computer
- Climate control system
- Driver position memory system
- Clock
- Audio system

#### TIRES AND WHEELS

#### **A** 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 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 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 has been driven for less than 1.6 km (1 mile).

Warm tires normally exceed recommended cold tire pressures by 28 to 41 kPa (4 to 6 psi). 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" in chapter 8.

#### **A** 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.

### **A** 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, we recommend it be 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.

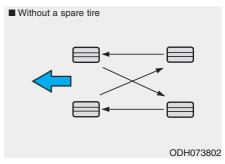
If you overfill the tire, release air by pushing on the metal stem in the center of the tire valve. Recheck the tire pressure with the tire gauge. Be sure to put the valve caps back on the valve stems. Without the valve cap, dirt or moisture could get into the valve core and cause air leakage. If a valve cap is missing, install a new one as soon as possible.

#### Tire rotation

To equalize tread wear, HYUNDAI recommends that the tires be rotated every 12,000 km (7,500 miles) 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 11~13 kgf·m [79~94 lbf·ft]).



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" facing the outside. If the side marked "inside" is installed on the outside, it will have a negative effect on vehicle performance.

#### **A** 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 1.6 mm (1/16 in.) 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.

#### **A** 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. If only replacing one pair of tires, it is recommended to install the pair of new tires on the rear axle.
- 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.

#### **A 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 80 km/h (50 mph) 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.

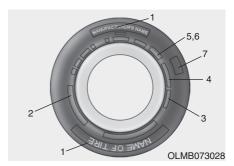
### **Tire maintenance**

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.)

#### 245/60 R18 105H

- 245 Tire width in millimeters.
- 60 Aspect ratio. The tire's section height as a percentage of its width.
- R Tire construction code (Radial).
- 18 Rim diameter in inches.
- 105 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:

#### 7.5J X 18

- 7.5 Rim width in inches.
- J Rim contour designation.
- 18 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	180 km/h (112 mph)
Т	190 km/h (118 mph)
Н	210 km/h (130 mph)
V	240 km/h (149 mph)
W	270km/h (168mph)
Υ	300km/h (186mph)

# 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 1421 represents that the tire was produced in the 15th week of 2021.

# 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:

TREAD WEAR 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.

### **A** 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.

## Low aspect ratio tires

A low aspect ratio tire, of which the aspect ratio is lower than 50, is designed for a sporty-look vehicle. The low aspect ratio is to optimize handling and braking. Thus, it may be uncomfortable to ride and it may generate noises, in comparison with a normal tire.

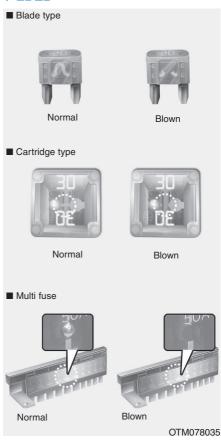
## **A** CAUTION

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, slowly drive the vehicle 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 3,000 km (1,800 miles) to prevent a 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**



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 negative battery cable. 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. We recommend that you 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.

## **A** 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.

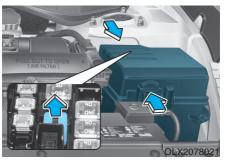
### NOTICE

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



- 1. Turn the vehicle off.
- 2. Turn all other switches OFF.
- 3. Open the fuse panel cover.
- Refer to the label on the inside of the fuse panel cover to locate the suspected fuse location.

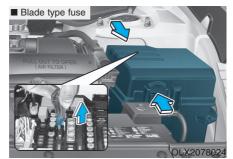


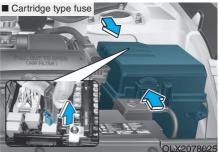
- Pull the suspected fuse straight out. Use the removal tool provided in the engine compartment fuses panel.
- Check the removed fuse; replace it if it is blown. Spare fuses are provided in the instrument panel fuse panels (or in the engine compartment fuse panel).
- Push in a new fuse of the same rating, and make sure it fits tightly in the clips. If it fits loosely, we recommend that you 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 headlamps 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





- 1. Turn the vehicle off.
- 2. Turn all other switches OFF.

- 3. Remove the fuse panel cover by pressing the tab and pulling up.
- 4. Check the removed fuse; replace it if it is blown. To remove or insert the fuse, use the fuse puller in the engine compartment fuse panel.
- Push in a new fuse of the same rating, and make sure it fits tightly in the clips. If it fits loosely, we recommend that you 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 (Main fuse)



If the multi fuse is blown, it must be removed as follows:

- 1. Turn the vehicle off.
- 2. Disconnect the negative battery cable.
- 3. Remove the fuse panel cover by pressing the tab and pulling it up.
- 4. Remove the nuts shown in the picture above.
- 5. Replace the fuse with a new one of the same rating.
- Reinstall in the reverse order of removal.

If the multi fuse is blown, we recommend that you consult an authorized HYUNDAI dealer.

### Fuse/Relay panel description

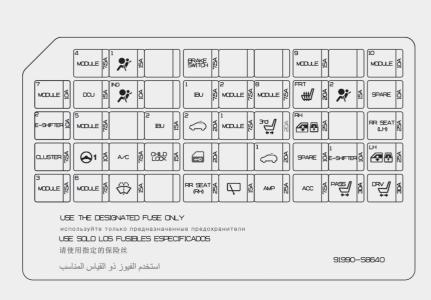
### Driver's side fuse panel



Inside the fuse/relay box covers, you can find the fuse/relay label describing fuse/relay names and ratings.

# **i** Information

Not all fuse panel descriptions in this manual may be applicable to your vehicle. It is accurate at the time of printing. When you inspect the fuse box on your vehicle, refer to the fuse box label.



OLX2078026L

Fuse Name	Symbol	Fuse Rating	Circuit Protected
MODULE4	4 MODULE	7.5A	Driver Door Module, Stop Lamp Switch (G6DN/G6DC)
A/BAG1	1 💸	15A	SRS Control Module
BRAKE SWITCH	BRAKE SWITCH	7.5A	Stop Lamp Switch
MODULE9	9 MODULE	15A	Audio, A/V & Navigation Head Unit, Head-Up Display, Front A/C Control Module, Instrument Cluster, Security Indicator, Rain Sensor, Rear Occupant Alert (ROA) Sensor, Driver IMS Control Module, Power Tail Gate Unit, Driver Door Module, Driver/Passenger Power Outside Mirror (WithIMS)
MODULE10	MODULE	10A	Front Console Switch, Data Link Connector, Rear A/C Control Module, Front Wireless Charger, Blind-Spot Collision Warning Unit LH/RH, Center Fascia Keyboard (Audio)
MODULE7	7 MODULE	10A	Head Lamp RH, Head Lamp LH
A/BAG IND	IND	10A	Instrument Cluster
IBU1	¹ IBU	7.5A	IBU
MODULE2	2 MODULE	7.5A	1ST Seat Heater Control Module, 1ST Air Ventilation Control Module, Surround View Monitor Unit, 2ND Seat LH/RH Heater Control Module, 2ND Air Ventilation Seat LH/RH Control Module

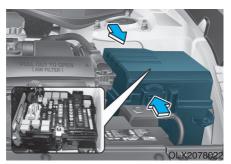
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Fuse Name	Symbol	Fuse Rating	Circuit Protected
MODULE8	8 MODULE	7.5A	Driver/Passenger Smart Key Outside Handle, Driver/Passenger Door Lock Actuator (W/O IMS), Center Fascia Keyboard
S/HEATER FRT	FRT	20A	1ST Seat Heater Control Module, 1ST Air Ventilation Control Module
A/BAG2	2	15A	Driver Air Ventilation Seat Blower Motor
E-SHIFTER2	<sup>2</sup> E- SHIFTER	10A	Electronic ATM shift button Switch (SBW)
MODULE5	5 MODULE	7.5A	Front Console Switch, Crash Pad Switch (Up), IBU, Fuel Pressure Sensor (D4HC), 4WD ECM
IBU2	² IBU	15A	IBU
SUNROOF2		20A	Rear Sunroof Motor
MODULE1	1 MODULE	7.5A	IBU
P/WDW RH	RH	20A	Passenger Safety Power Window Module, Passenger Power Window Switch, Rear Power Window Switch RH, Rear Safety Power Window Module RH
RR SEAT LH	RR SEAT (LH)	25A	2ND Seat LH Reclining Folding Actuator, 2ND Air Ventilation Seat LH Control Module, 2ND Seat LH Heater Control Module

Fuse Name	Symbol	Fuse Rating	Circuit Protected
CLUSTER	CLUSTER	7.5A	Instrument Cluster, Head-Up Display
MDPS1	<b>⊕</b> ¹	10A	MDPS Unit
A/CON	A/C	7.5A	Incar Temperature Sensor, Front/Rear A/C Control Module, Cluster Ionizer, E/R Junction Block (RLY.3, RLY.6, RLY.7, RLY.9)
CHILD LOCK	CHILD LOCK	15A	ICM Relay Box(Child Lock/Unlock Relay)
DR/LOCK		20A	Tail Gate Relay, Door Lock/Unlock Relay
SUNROOF1	$\mathbb{Q}$	20A	Front Sunroof Motor
E-SHIFTER1	1 E- SHIFTER	10A	Electronic ATM shift button Switch (SBW)
P/WDW LH	LH 🗨	25A	Driver Safety Power Window Module, Rear Power Window Switch LH, Rear Safety Power Window Module LH
MODULE3	3 MODULE	7.5A	IBU
MODULE6	6 MODULE	7.5A	Center Fascia Keyboard, Audio, A/V & Navigation Head Unit, Front/Rear A/C Control Module, Electro Chromic Mirror, AMP, Driver IMS Control Module, 1ST Seat Heater Control Module, 1ST Air Ventilation Control Module, 2ND Seat LH/RH Heater Control Module, 2ND Air Ventilation Seat LH/RH Control Module

Fuse Name	Symbol	Fuse Rating	Circuit Protected
Washe	$\oplus$	15A	Multifunction Switch
RR SEAT RH	RR SEAT (RH)		2ND Seat RH Reclining Folding Actuator, 2ND Air Ventilation Seat RH Control Module, 2ND Seat RH Heater Control Module
Wiper RR	$\Box$	15A	Rear Wiper Relay, Rear Wiper Motor
AMP	AMP	25A	AMP
ACC	ACC	7.5A	Center Fascia Keyboard, IBU, Audio, A/V & Navigation Head Unit, Front Wireless Charger, 1ST USB Charger #1, Surround View Monitor Unit, AMP
PS/P/Seat	PASS	30A	Passenger Seat Manual Switch
DR/P/Seat	DRV	30A	Driver Seat Manual Switch, Driver IMS Control Module

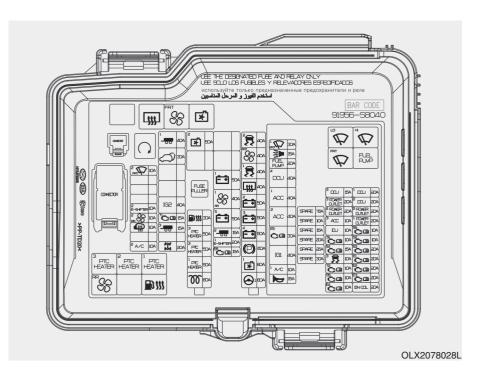
## Engine compartment fuse panel



Inside the fuse/relay box covers, you can find the fuse/relay label describing fuse/relay names and ratings.

# *i* Information

Not all fuse panel descriptions in this manual may be applicable to your vehicle. It is accurate at the time of printing. When you inspect the fuse box on your vehicle, refer to the fuse box label.



# **Engine compartment fuse panel (Junction block)**

Туре	Fuse Name	Symbol	<b>Fuse Rating</b>	Circuit Protected
	ESP2	² 💭	40A	ESP Control Module
	FR Blower	FRT CS	40A	E/R Junction Block (RLY.3)
	ESP1	1 1	40A	Multipurpose Check Connector
MULTI	RR DEFOG	<b>()</b>	40A	E/R Junction Block (RLY.2)
FUSE-1	BATT2	2 — +	50A	ICU Junction Block (IPS8,10,11,15)
	BATT3	3 = +	50A	ICU Junction Block (Fuse - F29, F38, F39, F48, F49)
	BATT4	4 = +	50A	ICU Junction Block (Fuse - F16, F17, F27, F36, F46)
	EPB	(P)	60A	ESP Control Module
FUSE	C/FAN1	¹ <b>≭</b>	80A	Not Used
1 00L	MDPS1	<b>⊘</b> ¹	80A	MDPS Unit

# Engine compartment fuse panel (Junction block)

Туре	Fuse Name	Symbol	Fuse Rating	Circuit Protected
	Fuel HTD		30A	E/R Junction Block (RLY.11)
	PTC3	3 PTC HEATER	50A	E/R Junction Block (RLY.6)
MULTI FUSE-2	PTC2	<sup>2</sup> PTC HEATER	50A	E/R Junction Block (RLY.7)
	PTC1	1 PTC HEATER	50A	E/R Junction Block (RLY.8)
	GLOW	700	80A	Glow Relay Unit
	BATT1	1 — +	50A	ICU Junction Block ((Fuse - IPS1,2,3,4,5,6,7), Long/Short Term Load Latch Relay)
	RR Blower1	1 RR	40A	E/R Junction Block (RLY.9)
	BATT5	5 - +	50A	ICU Junction Block (Fuse - F4, F14, F23, F24, F33, F34, F44)
FUSE	TRAILER2	2	15A	Not Used
	E-Shifter1	1 E- SHIFTER	20A	E/R Junction Block (Fuse - F37), SCU
	ECU6		15A	ЕСМ
	C/FAN2	2 7	50A	E/R Junction Block (RLY.4)

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# Engine compartment fuse panel (Junction block)

Туре	Fuse Name	Symbol	Fuse Rating	Circuit Protected
	TRAILER1	1 00	40A	Not Used
	P/Tail Gate		30A	Power Tail Gate Unit
	IG2	IG2	40A	E/R Junction Block (RLY.5), PCB Block (IG2 Relay)
	TCU1		15A	тсм
	TRAILER3	" O	15A	Not Used
FUSE	4WD	P0-1	20A	4WD ECM
	FR Wiper2	2 FRT	10A	IBU, ECM
	E-Shifter2	<sup>2</sup> E- SHIFTER	10A	SCU
	RR Blower2	2 RR	10A	Rear A/C Control Module
	RR HTD		10A	Driver/Passenger Power Outside Mirror, Front A/C Control Module
	A/C2	<sup>2</sup> A/C	10A	Front A/C Control Module (Auto)

# **Engine compartment fuse panel (PCB Junction block : Gasoline 3.8 GDI)**

Fuse Name	Symbol	Fuse Rating	Circuit Protected
FR WIPER1	1 FRT	30A	PCB Block (RLY.3)
B/ALARM	<b></b>	15A	PCB Block (Burglar Alarm Horn Relay)
P/PUMP	PUEL PUMP	20A	PCB Block (RLY.4)
DCU3	<sup>3</sup> DCU	15A	Not Used
DCU1	DCU	20A	Not Used
P/OUTLET3	POWER OUTLET	20A	Luggage Power Outlet
DCU2	<sup>2</sup> DCU	20A	Not Used
P/OUTLET4	POWER OUTLET	20A	1ST Power Outlet
P/OUTLET2	POWER OUTLET	20A	2ND Power Outlet #1
ACC3	<sup>3</sup> ACC	10A	1ST USB Charger #2, 2ND USB Charger LH/RH, 3RD USB Charger LH/RH
P/OUTLET1	POWER OUTLET	20A	2ND Power Outlet #2

# Engine compartment fuse panel (PCB Junction block : Gasoline 3.8 GDI)

Fuse Name	Symbol	Fuse Rating	Circuit Protected	
ICU	ICU	10A	ICU Junction Block (Fuse - F47)	
SENSOR5	ss 🗘 🕮	10A	Not Used	
SENSOR1	S1 (1)	10A	PCB Block (RLY.4), E/R Junction Block (RLY.11)	
SENSOR2	S2 (C)	10A	E/R Junction Block (RLY.8), Mass Air Flow Sensor, Stop Lamp Switch, Crankshaft Position Sensor, Oil Pump Valve, EGR Cooing Bypass Solenoid Valve, E/R Junction Block (A/C COMP Realy)	
SENSOR4	S4 (**)	15A	E/R Junction Block (RLY.4), Lambda Sensor #1/#2, Electronic VGT Actuator, PM (Particulate Matter) Sensor, Cooling Fan Controller	
SENSOR3	s: 🗘 🕮	20A	Rail Pressure Regulating Valve	
ESP3	° 🛱	10A	Multipurpose Check Connector, ESP Control Module	
ECU1	E1 🚇	20A	ЕСМ	
A/C1	1 A/C	10A	PCB Block (A/C COMP Relay)	
TCU2	T2	10A	TCM, SCU	
ECU2		20A	Not Used	

# **Engine compartment fuse panel (PCB Junction block : Gasoline 3.8 GDI)**

Fuse Name	Symbol	Fuse Rating	Circuit Protected		
HORN	đ	15A	PCB Block (Horn Relay)		
SENSOR6	ss 🗘 🕮	10A	Glow Relay Unit		
ECU3		20A	Fuel Pressure Regulating Valve		
ECU4	E4 (**)	10A	ЕСМ		
IGN COIL	IGN COIL	20A	Not Used		
DCU4	⁴DCU	40A	Not Used		
ACC1	1 ACC	40A	PCB Block (ACC1 Relay)		
ACC2	<sup>2</sup> ACC	40A	PCB Block (ACC2 Relay)		
ECU5	E5 (C) (M)	30A	Engine Control Relay		
IG1	IG1	40A	PCB Block (IG1 Relay)		

# **Engine compartment fuse panel (PCB Junction block : Diesel 2.2 TCI)**

Fuse Name	Symbol	Fuse Rating	Circuit Protected
FR WIPER1	1 FRT	30A	PCB Block (RLY.3)
B/ALARM	<b>***</b>	15A	PCB Block (Burglar Alarm Horn Relay)
P/PUMP	PUEL PUMP	20A	PCB Block (RLY.4)
DCU3	³ DCU	15A	Not Used
DCU1	DCU	20A	Not Used
P/OUTLET3	POWER OUTLET	20A	Luggage Power Outlet
DCU2	<sup>2</sup> DCU	20A	Not Used
P/OUTLET4	POWER OUTLET	20A	1ST Power Outlet
P/OUTLET2	POWER OUTLET	20A	2ND Power Outlet #1
ACC3	<sup>3</sup> ACC	10A	1ST USB Charger #2, 2ND USB Charger LH/RH, 3RD USB Charger LH/RH
P/OUTLET1	POWER OUTLET	20A	2ND Power Outlet #2

# **Engine compartment fuse panel (PCB Junction block : Diesel 2.2 TCI)**

Fuse Name	Symbol	Fuse Rating	Circuit Protected
ICU	ICU	10A	ICU Junction Block (Fuse - F47)
SENSOR5	ss <b>(</b>	10A	Oxygen Sensor #1/#2
SENSOR1	S1 <b>(</b>	10A	PCB Block (RLY.4)
SENSOR2	S2 	10A	Electronic Thermostat, Purge Control Solenoid Valve, Oxygen Sensor #3/#4, Oil Control Valve #1/#2/#3/#4, Variable Intake Solenoid Valve #1/#2, Oil Pressure Switch, E/R Junction Block (A/C COMP Realy)
SENSOR4	S4 (1)	15A	E/R Junction Block (RLY.4), Cooling Fan Controller, Ignition Coil #1,#2,#3,#4,#5,#6
SENSOR3	ss 🖺 🛄	20A	Not Used
ESP3	<b>(</b> I?∾	10A	Multipurpose Check Connector, ESP Control Module
ECU1	E1 💭 🕮	20A	ECM
A/C1	<sup>1</sup> A/C	10A	PCB Block (A/C COMP Relay)
TCU2	T2 	10A	TCM, SCU
ECU2	E2 	20A	ECM

# **Engine compartment fuse panel (PCB Junction block : Diesel 2.2 TCI)**

Fuse Name	Symbol	Fuse Rating	Circuit Protected
HORN	đ	15A	PCB Block (Horn Relay)
SENSOR6	ss 🖺 🕮	10A	Not Used
ECU3		20A	ECM
ECU4	E4 ( ) ( )	10A	ECM
IGN COIL	IGN COIL	20A	Not Used
DCU4	<sup>⁴</sup> DCU	40A	Not Used
ACC1	1 ACC	40A	PCB Block (ACC1 Relay)
ACC2	<sup>2</sup> ACC	40A	PCB Block (ACC2 Relay)
ECU5	E5 (C) (M)	30A	Engine Control Relay
IG1	IG1	40A	PCB Block (IG1 Relay)

# Engine compartment fuse panel (PCB Junction block : Gasoline 3.5 MPI)

Fuse Name	Symbol	Fuse Rating	Circuit Protected
FR WIPER1	1 FRT	30A	PCB Block (RLY.3)
B/ALARM	<b>***</b>	15A	PCB Block (Burglar Alarm Horn Relay)
P/PUMP	PUEL PUMP	20A	PCB Block (RLY.4)
DCU3	³ DCU	15A	Not Used
DCU1	DCU	20A	Not Used
P/OUTLET3	POWER OUTLET	20A	Luggage Power Outlet
DCU2	<sup>2</sup> DCU	20A	Not Used
P/OUTLET4	POWER OUTLET	20A	1ST Power Outlet
P/OUTLET2	POWER OUTLET	20A	2ND Power Outlet #1
ACC3	<sup>3</sup> ACC	10A	1ST USB Charger #2, 2ND USB Charger LH/RH, 3RD USB Charger LH/RH
P/OUTLET1	POWER OUTLET	20A	2ND Power Outlet #2

# Engine compartment fuse panel (PCB Junction block : Gasoline 3.5 MPI)

Fuse Name	Symbol	Fuse Rating	Circuit Protected
ICU	ICU	10A	ICU Junction Block (Fuse - F47)
SENSOR5	ss 🖺	10A	Oil Control Valve #3,#4
SENSOR1	s1	10A	PCB Block (RLY.4), Injector #1,#2,#3,#4,#5,#6
SENSOR2	s₂ Ĉ <b>(</b>	10A	Oxygen Sensor #1,#2,#3,#4, Oil Control Valve #1,#2, Variable Intake Solenoid Valve #1/#2, Purge Control Solenoid Valve, E/R Junction Block (A/C COMP Realy)
SENSOR4	s₄ (	15A	E/R Junction Block (RLY.4), Cooling Fan Controller
SENSOR3	s: 🗘 🚇	20A	Not Used
ESP3	° 🛜	10A	Multipurpose Check Connector, ESP Control Module
ECU1	E1 (1)	20A	ECM
A/C1	¹ A/C	10A	PCB Block (A/C COMP Relay)
TCU2	T2	10A	TCM, SCU
ECU2	E2	20A	ЕСМ

# Engine compartment fuse panel (PCB Junction block : Gasoline 3.5 MPI)

Fuse Name	Symbol	Fuse Rating	Circuit Protected
HORN	đ	15A	PCB Block (Horn Relay)
SENSOR6	ss 🖺 🕮	10A	Not Used
ECU3		20A	ECM
ECU4	E4 ()	10A	ECM
IGN COIL	IGN COIL	20A	Ignition Coil #1/#2/#3/#4/#5/#6, Condenser #1/#2
DCU4	<sup>⁴</sup> DCU	40A	Not Used
ACC1	1 ACC	40A	PCB Block (ACC1 Relay)
ACC2	<sup>2</sup> ACC	40A	PCB Block (ACC2 Relay)
ECU5	E5 (C) (M)	30A	Engine Control Relay
IG1	IG1	40A	PCB Block (IG1 Relay)

### LIGHT BULBS

We recommend that you 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 headlamp assembly to get to the bulb(s).

Removing/installing the headlamp assembly can result in damage to the vehicle.

### 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.

# *i* Information

The headlamp 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 headlamp on. The removable level may differ depending on lamp size, lamp position and environmental condition. However, if moisture is not removed, we recommend that your vehicle is inspected by an authorized HYUNDAI dealer.

# Information

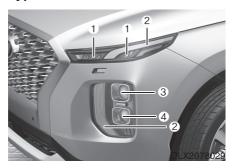
The headlamp aiming should be adjusted after an accident or after the headlamp assembly is reinstalled at an authorized HYUNDAI dealer.

# i Information - Traffic Change (for Europe)

The low beam light distribution is asymmetric. If you go abroad to a country with opposite traffic direction, this asymmetric part will dazzle oncoming car driver. To prevent dazzle, ECE regulation demand several technical solutions (ex. automatic change system, adhesive sheet, down aiming). These headlamps are designed not to dazzle opposite drivers. So, you need not change your headlamps in a country with opposite traffic direction.

# Headlamp, position lamp, turn signal lamp and daytime running light bulb replacement

### Type A



- (1) Turn signal lamp
- (2) Daytime running light / Position lamp
- (3) Headlamp (Low)
- (4) Headlamp (High)

# **A** WARNING

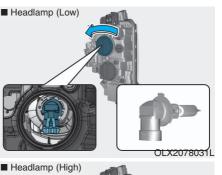


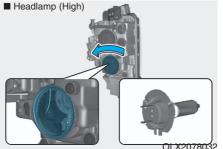
- Handle halogen bulbs with care. Halogen bulbs contain pressurized gas that will produce flying pieces of glass that could cause injuries if broken.
- Wear eye protection when changing a bulb. Allow the bulb to cool down before handling it.

- 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 headlamp.
- If a bulb becomes damaged or cracked, replace it immediately and carefully dispose of it.

### **A** WARNING

Prior to working on a light, firmly apply the parking brake, ensure that the ignition switch is in the OFF position and turn off the lights to avoid sudden movement of the vehicle and burning your fingers or receiving an electric shock.





### Headlamp

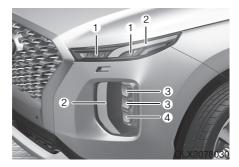
- 1. Open the hood.
- 2. Disconnect the negative battery cable.

- 3. Remove the bulb cover by turning it counterclockwise.
- 4. Disconnect the bulb socket-connector.
- Remove the bulb socket from the headlamp assembly by turning it counterclockwise.
- 6. Install a new bulb.
- 7. Connect the bulb socket-connector.
- 8. Install the bulb cover by turning it clockwise.

Daytime running light/position lamp / Turn signal lamp

If the LED lamp does not operate, we recommend that you have the vehicle checked by an authorized HYUNDAI dealer.

Type B



- (1) Turn signal lamp
- (2) Daytime running light / Position lamp
- (3) Headlamp (Low)
- (4) Headlamp (High) (with sub LOW)

### **A** WARNING



- Handle halogen bulbs with care. Halogen bulbs contain pressurized gas that will produce flying pieces of glass that could cause injuries if broken.
- Wear eye protection when changing a bulb. Allow the bulb to cool down before handling it.

- 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 headlamp.
- If a bulb becomes damaged or cracked, replace it immediately and carefully dispose of it.

### Lamps

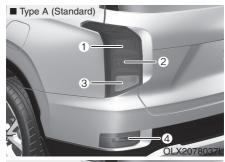
If the LED lamp does not operate, we recommend that you have the vehicle checked by an authorized HYUNDAI dealer.

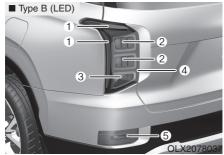
# Side repeater lamp replacement



If the LED lamp (1) does not operate, we recommend that you have the vehicle checked by an authorized HYUNDAI dealer.

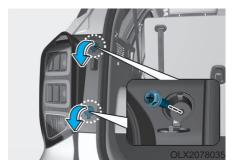
## Rear combination lamp bulb replacement







- **■** Type A
- (1) Tail lamp
- (2) Tail/Stop lamp
- (3) Turn signal lamp
- (4) Backup lamp
- Type B
- (1) Tail lamp
- (2) Stop lamp
- (3) Turn signal lamp
- (4) Tail lamp
- (5) Backup lamp



Stop/Tail lamp and turn signal lamp (Type A)

- 1. Turn off the engine.
- 2. Open the tailgate.
- 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 / Stop lamp, turn signal lamp (Type B)

If the LED lamp does not operate, we recommend that you have the vehicle checked by an authorized HYUNDAI dealer.

Back up lamp, Rear fog lamp

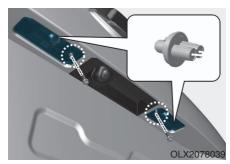
If these lamps do not operate, we recommend that you have the vehicle checked by an authorized HYUNDAI dealer.

# High mounted stop lamp replacement



If the high mounted stop lamp (1) does not operate, we recommend that you contact an authorized HYUNDAI dealer.

# License plate light bulb replacement



- 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 bulb replacement





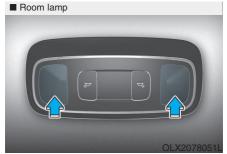


Map lamp (1) / Room lamp (2) / Luggage compartment lamp (3) (LED Type)

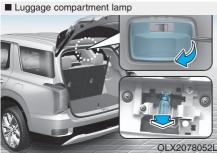
If the lamp does not operate, we recommend that the system be checked by an authorized HYUNDAI dealer.

# Map lamp, room lamp, vanity mirror lamp and luggage compartment lamp











- 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**

### 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, may be used.

After washing, rinse the vehicle thoroughly with lukewarm or cold water. Do not allow soap to dry on the finish.

### 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 and lamps, do not clean with chemical solvents or strong detergents.

### **A** WARNING

#### Wet brakes

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.

### **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.



### 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 (e.g. 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, we recommend that you 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.

### **A** 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 any 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, be sure to clean the wheels after driving on salted roads.
- Do not wash the wheels with high-speed car wash brushes.
- Do not use any cleanser containing acid or alkaline detergents.

#### Corrosion protection

**Protecting your vehicle from corrosion** 

By using the most advanced design and construction practices to combat corrosion, we 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

You can help prevent corrosion from getting started by observing the following:

#### 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 car at least once
 a month and be sure to clean the
 underside thoroughly when winter
 is over.

- When cleaning underneath the vehicle, give 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: Bird droppings are highly corrosive and may damage painted surfaces in just a few hours. Always remove bird droppings as soon as possible.

#### Don't neglect the interior

Moisture can collect under the floor mats and vehicle peting to cause corrosion. Check under the mats periodically to be sure the carpeting is dry. Use particular care if you carry fertilizers, cleaning materials or chemicals in the vehicle.

These should be carried only in proper containers and any spills or leaks should be cleaned up, flushed with clean water and thoroughly dried.

#### Interior care

#### Interior general precautions

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. If they do contact the interior parts, wipe them off immediately.

See the instructions that follow for the proper way to clean vinyl.

#### NOTICE

Never allow water or other liquids to come in contact with electrical/electronic components inside the vehicle as this may damage them.

#### NOTICE

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

Vinyl (if equipped)

Remove dust and loose dirt from vinyl with a whisk broom or vacuum cleaner. Clean vinyl surfaces with a vinyl cleaner.

#### 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 product.

#### **⚠** CAUTION

- 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 lap/shoulder 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 it.

# 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 Service Passport in your vehicle.

Your vehicle is equipped with an emission control system to meet all emission regulations.

There are three emission control systems which are 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 car inspected and maintained by an authorized HYUNDAI dealer in accordance with the maintenance schedule in this manual.

## **A** CAUTION

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.
- 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

The Evaporative Emission Control System is designed to prevent fuel vapors from escaping into the atmosphere.

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#### 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.

# Engine exhaust gas precautions (carbon monoxide)

 Carbon monoxide can be present with other exhaust fumes. Therefore, if you smell exhaust fumes of any kind inside your vehicle, have it inspected and repaired immediately. If you ever suspect exhaust fumes are coming into your vehicle, drive it only 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 following to avoid CO poisoning.

- 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)

#### **A** WARNING

- A hot exhaust system can ignite flammable items under your vehicle. Do not park, idle, or drive the vehicle over or near flammable objects, such as dry grass, paper, leaves, etc.
- The exhaust system and catalytic system are very hot while the engine is running or immediately after the engine is turned off. Keep away from the exhaust system and catalytic converter as 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.

Therefore, the following precautions must be observed:

- 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 engine off and descending steep grades in gear with the engine 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. We recommend that all inspections and adjustments are made by an authorized HYUNDAI dealer.
- Avoid driving with a very low fuel level. If you run out of gasoline, it could cause the engine to misfire and result in excessive loading of the catalytic converter.

Failure to observe these precautions could result in damage to the catalytic converter and to your vehicle.

Additionally, such actions could void your warranties.

#### Diesel particulate filter (DPF) (if equipped)

The Diesel Particulate Filter (DPF) system removes the soot in the exhaust gas.

The DPF system automatically burns (or oxidizes) the accumulated soot in accordance with driving situations. unlike a disposable air filter.

In other words, the accumulated soot is automatically purged out by the engine control system and by the high exhaust-gas temperature at normal/ high driving speeds.

However, when the vehicle is continually driven at repeated short distances or driven at low speed for a long time, the accumulated soot may not be automatically removed because of low exhaust gas temperature.

In this case, the accumulated soot is out of the detection range, the soot oxidization process does not occur, and the Diesel Particulate Filter (DPF) Lamp ( ⇐़ाँद्धे) Illuminates.

The Diesel Particulate Filter (DPF) Lamp stops illuminating, when the driving speed exceeds 60 km/h (37 mph). or when the engine rpm is between 1,500 and 2,500 with the gear in the 2nd position or above for approximatelv 25 minutes.

When the DPF Lamp continuously blinks or the warning message "Check exhaust system" illuminates in the above cases, we recommend that you have the DPF system checked by an authorized HYUNDAI dealer.

When the vehicle is continuously driven with the DPF Lamp flashing for an extended period of time, it may damage the DPF system and lower the fuel economy.

#### **!**\CAUTION

Diesel Fuel (if equipped with DPF)

We recommend you to use only the regulated diesel fuels, when your vehicle is equipped with the DPF system.

When you use other diesel fuels, which are high in sulfurs (above 50 ppm) or that contain unspecified additives, they may damage the DPF system and cause white smoke emissions.

### Lean NOx Trap (if equipped)

The Lean NOx Trap (LNT) system removes the nitrogen oxide from the exhaust gas. A smell can occur in the exhaust gas depending on the quality of the fuel, and it can degrade NOx reduction performance. Please use the regulated automotive diesel fuel.

# **Specifications & Consumer information**

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## **DIMENSIONS**

Items	mm (in)	
Overall length		4,980 (196.06)
Overall width		1,975 (77.75)
Overall height	1,750 (68.89)	
Front tread	245/60 R18	1,708 (67.24)
Front treat	245/50 R20	1,708 (67.24)
Rear tread	1,716 (67.56)	
near treat	245/50 R20	1,716 (67.56)
Wheelbase	2,900 (114.17)	

## **ENGINE**

Item	Gasoline 3.8 GDI	Gasoline 3.5 MPI	Diesel R2.2
Displacement cc (cu. in)	3,778 (230.55)	3,470 (211.75)	2,199 (134.19)
Bore x Stroke mm (in.)	96 x 87 (3.78 x 3.43)	92x87 (3.62 x 3.43)	85.4x96 (3.34X3.77)
Firing order	1-2-3-4-5-6	1-2-3-4-5-6	1-3-4-2
No. of cylinders	6, V-type	6, V-type	4. In-line

## **BULB WATTAGE**

	Light Bulb	Bulb Type	Wattage
	Headlamp (Low) - Type A	HB3	60
	Headlamp (High) - Type A	H7	55
	Headlamp (Low) - Type B	LED	LED
Front	Headlamp (High) - Type B	LED	LED
FIOIIL	Daytime running lamp(DRL) & Position lamp -Type A	LED	LED
	Daytime running lamp(DRL) & Position lamp -Type B	LED	LED
	Turn signal lamp	LED	LED
	Turn signal lamp (Outside mirror)	LED	LED
	Rear combination lamp (Tail) - Type A	P21/5W	21/5
	Rear combination lamp (Tail/Stop) - Type A	P21/5W	21/5
	Rear turn signal lamp - Type A	P21W	21
	Rear combination lamp (Stop) - Type B	LED	LED
Rear	Rear combination lamp (Tail/Stop) - Type B	LED	LED
neai	Rear turn signal lamp - Type B	LED	LED
	Back up lamp	P21W	21
	Rear fog lamp	LED	LED
	High mounted stop lamp	LED	LED
	License plate lamp	W5W	5

	Light Bulb	Bulb Type	Wattage
	Map lamp - Type A	W8W	8
	Map lamp - Type B	LED	LED
	Room lamp - Type A	W8W	8
Interior lamp	Room lamp - Type B	LED	LED
	Luggage lamp - Type A	FESTOON	8
	Luggage lamp - Type B	LED	LED
	Sunvisor lamp - Type A	5W	5
	Sunvisor lamp - Type B	LED	LED
	Glove box lamp	FESTOON	5

## TIRES AND WHEELS

		Inflation Pressure bar (kPa, psi) Wheel		Inflation Pressure bar (kPa, psi)		Wheel Lug Nut			
Item	Tire Size	Wheel Size	Norma	al load	Maximu	ım load	Torque		
			Front	Rear	Front	Rear	kgf.m (lbf.ft, N.m)		
Full size tire	245/60 R18	7.5J x 18	2.4 (240,35)		2.4 (240.25)		2.4.(2	40,35)	44.40
ruii size tile	245/50 R20	7.5J x 20			2.4 (2	40,33)	11~13 (79~94,107~127)		
Compact spare tire	T155/90 R18	4.0T x 18	4.2 (420, 60)						

#### NOTICE

- It is permissible to add 20 kPa (3 psi) to the standard tire pressure specification if colder temperatures are expected soon. Tires typically lose 7 kPa (1 psi) for every 7°C (12°F) 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: +10 kPa/1 km (+2.4 psi/1 mile)).
- Do not exceed maximum inflation pressure shown on equipped tire sidewall.

## **!** CAUTION

When replacing tires, use the same size originally supplied with the vehicle.

Using tires of a different size can damage the related parts or make it work irregularly.

#### LOAD AND SPEED CAPACITY TIRES (FOR EUROPE)

Item Tire Size		e Size Wheel Size		Load Capacity		Capacity
iteiii	Tile Size	Wileel Size	LI *1	kg	SS *2	km/h
Full size tire	245/60 R18	7.5J x 18	105	925	Н	210
ruii size tile	245/50 R20	7.5J x 20	102	850	V	240
Compact spare tire	T155/90 R18	4.0T x 18	113	1150	M	130

\*1 LI : LOAD INDEX \*2 SS : SPEED SYMBOL

### AIR CONDITIONING SYSTEM

Items		Weight of Volume	Classification
Refrigerant	g (oz.)	900 (31.75) ± 25 (0.88)	R-134a
Compressor lubricant	g (oz.)	180 (6.35)	PAG

Contact an authorized HYUNDAI dealer for more details.

### **VEHICLE WEIGHT AND LUGGAGE VOLUME**

Item	Gasoline 3.5 MPI				Diesel 2.2	
Item	2WD	4WD	2WD	4WD	2WD	4WD
7 Seater [kg(lbs.)]	2560 (5643)	2610 (5754)	2570 (5665)	2630 (5798)	2610 (5754)	2670 (5886)
8 Seater [kg(lbs.)]	2610 (5754)	2645 (5831)	2630 (5798)	2660 (5864)	2670 (5886)	2690 (5930)

## Luggage volume

Item	From 2nd row to luggage room	From 3rd row to luggage room
VDA (MIN.)	704 L (24.86 cu ft)	311 L (10.98 cu ft)

#### 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.

Lu	bricant		Volume	Classification
Engine oil *1 *2 (drain and refill)	Gasoline	3.5 MPI	5.7 l (6.02 US qt.)	ACEA A5/B5 *4
Recommends	Engine	3.8 GDI	6.5 l (6.87 US qt.)	ACEA A5/B5 *4
Shell	Diesel	R 2.2 with DPF*3	6.5 <i>l</i> (6.87 US qt.)	ACEA C3 or C2
Motor oils	Engine	R 2.2 without DPF*3	0.5 <i>t</i> (0.67 03 qt.)	ACEA A3/B4
Automatic transmission fluid	Gasoline Engine	3.5 MPI / 3.8 GDI	7.0 / (7.4 US qt.)	MICHANG ATF SP-IV, SK ATF SP-IV,
	Diesel Engine	R 2.2	7.1 <i>l</i> (7.50 US qt.)	NOCA ATF SP-IV, HYUNDAI genuine ATF SP-IV
Coolant	Gasoline Engine	3.5 MPI / 3.8 GDI	8.9 / (9.4 US qt.)	Mixture of antifreeze and distilled water
Coolant	Diesel Engine	R 2.2	8.8 ~ 9.0 <i>l</i> (9.3 ~ 9.5 US qt.)	(Ethylene glycol base coolant for aluminum radiator)

<sup>\*1:</sup> Refer to the recommended SAE viscosity numbers on page 8-9.

<sup>\*2 :</sup> Engine oils labeled Energy Conserving Oil are now available. Along with other additional benefits, they contribute to fuel economy by reducing the amount of fuel necessary to overcome engine friction. Often, these improvements are difficult to measure in everyday driving, but in a year's time, they can offer significant cost and energy savings.

<sup>\*3:</sup> Diesel Particulate Filter

<sup>\*4:</sup> If the ACEA A5 engine oil is not available in your country, you are able to use API service SL, ILSAC GF-3, ACEA A3

Lubricant		Volume	Classification
Brake fluid		As required	FMVSS116 DOT-3 or DOT-4
Rear differential oil (4WD)		0.7 l (0.74 US qt.)	
Transfer case oil (4WD)	Diesel 2.2	0.65 / (0.69 US qt.)	HYPOID GEAR OIL API GL-5, SAE 75W/85 (SK HCT-5 GEAR OIL 75W/85 or
mansier case on (444b)	Gasoline 3.5 MPI / 3.8 GDI	0.7 l (0.74 US qt.)	EQUIVALENT)
Fuel		71 <i>l</i> (18.75 US gal.)	Refer to Fuel requirements in the introduction chapter.

#### **Recommended SAE viscosity number**

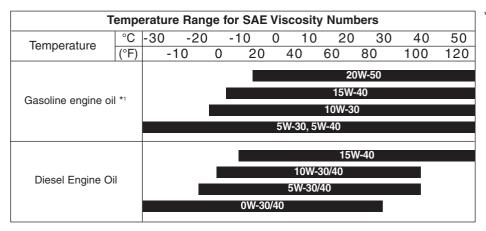
### **!** CAUTION

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.

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.

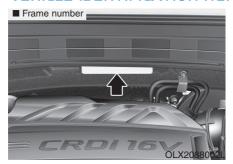
When choosing an oil, consider the range of temperature your vehicle will be operated in before the next oil change.

Proceed to select the recommended oil viscosity from the chart.



\*1: For better fuel economy, it is recommended to use the engine oil of a viscosity grade SAE 5W-30 (ACEA A5). However, if the engine oil is not available in your country, select the proper engine oil using the engine oil viscosity chart.

### **VEHICLE IDENTIFICATION NUMBER (VIN)**



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.



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).

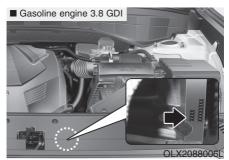
# TIRE SPECIFICATION AND PRESSURE LABEL

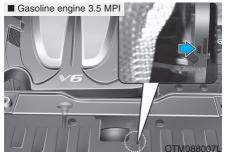


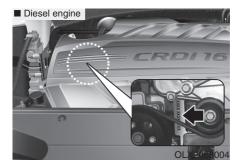
The tires supplied on your new vehicle are chosen to provide the best performance for normal driving.

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

#### ENGINE NUMBER

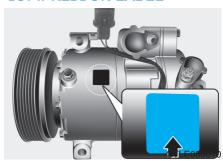






The engine number is stamped on the engine block as shown in the drawing.

# 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 and refrigerant oil.

# DECLARATION OF CONFORMITY (IF EQUIPPED)

■ Example

**C€ C€ 0678** 

CE0678

The radio frequency components of the vehicle comply with requirements and other relevant provisions of Directive 1995/5/EC.

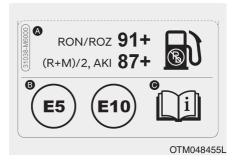
Further information including the manufacturer's declaration of conformity is available on HYUNDAI web site as follows;

http://service.hyundai-motor.com

### **FUEL LABEL (IF EQUIPPED)**

### Gasoline engine

The fuel label is attached on the fuel filler door.



- A. Octane rating of unleaded Gasoline
  - RON/ROZ : Research Octane Number
  - 2) (R+M)/2, AKI: Anti Knock Index
- B. Identifiers for Petrol-type fuels
  - \* This symbol means usable fuel.

    Do not use any other fuel.
- C. For further details, refer to the "Fuel Requirement" in the Introduction chapter.

#### **Diesel engine**

The fuel label is attached on the fuel filler door.



- A. Fuel: Diesel
- B. Identifiers for FAME containing Diesel-type Fuels
  - \* This symbol means usable fuel. Do not use any other fuel.
- C. For further details, refer to the "Fuel Requirement" in the Introduction chapter.