

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:

DANGER

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

WARNING

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

CAUTION

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

NOTICE

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

FOREWORD

Thank you for choosing HYUNDAI. We are pleased to welcome you to the growing number of discriminating people who drive HYUNDAI. The advanced engineering and high-quality construction of each HYUNDAI we build is something of which we're very proud.

Your Owner's Manual will introduce you to the features and operation of your new HYUNDAI. It is suggested that you read it carefully because the information it contains can contribute greatly to the satisfaction you receive from your new vehicle.

The manufacturer also recommends that service and maintenance on your vehicle be performed by an authorized HYUNDAI dealer.

HYUNDAI MOTOR COMPANY

Note : Because future owners will also need the information included in this manual, if you sell this HYUNDAI, please leave the manual in the vehicle for their use. Thank you.

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 8-6 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 section begins with a brief list of contents so you can tell at a glance if that section has the information you want.

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.

DANGER

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

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



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

FUEL REQUIREMENTS

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.
- In winter, in order to cut down incidents due to freezing, paraffin oil may be added to the fuel if the temperature drops to below -10°C (14°F). Never use more than 20% paraffin oil.

 **CAUTION**

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 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

No special break-in period is needed. 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.
- Don't tow a trailer during the first 2,000 km (1,200 miles) of operation.

RETURNING USED VEHICLES (FOR EUROPE)

HYUNDAI promotes an environmentally sound treatment of 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 the detailed information from your national HYUNDAI home page.

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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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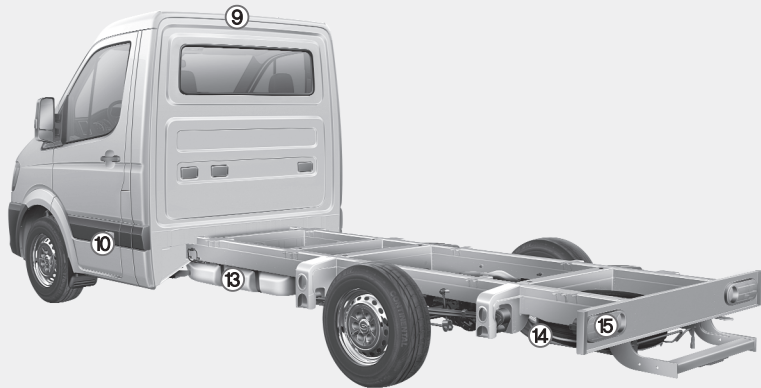
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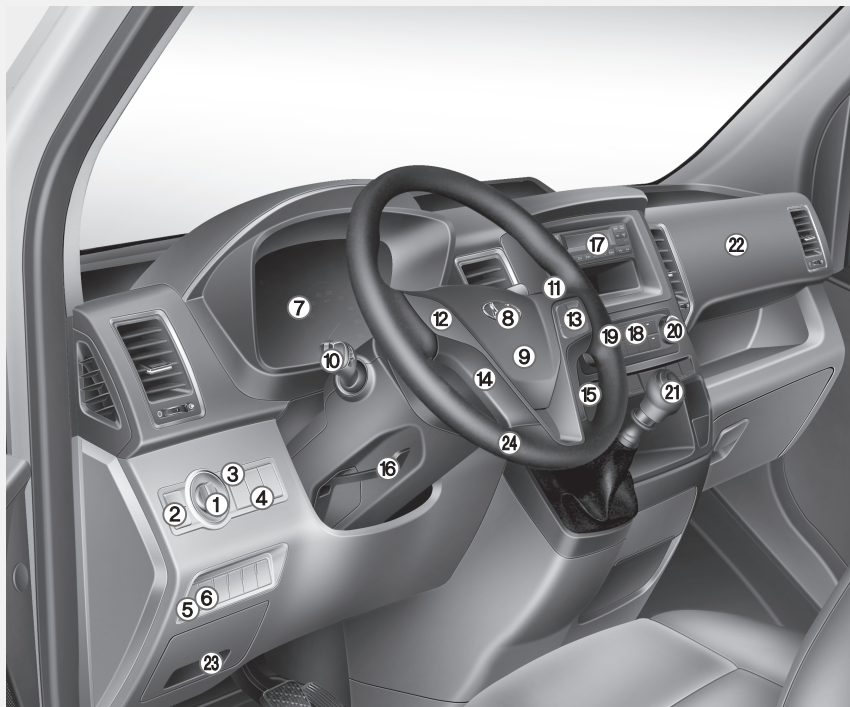


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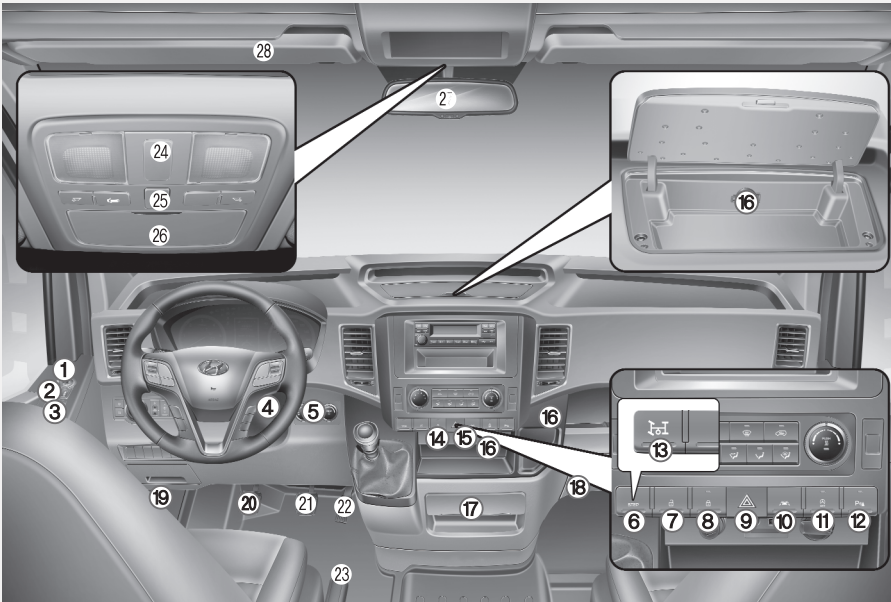


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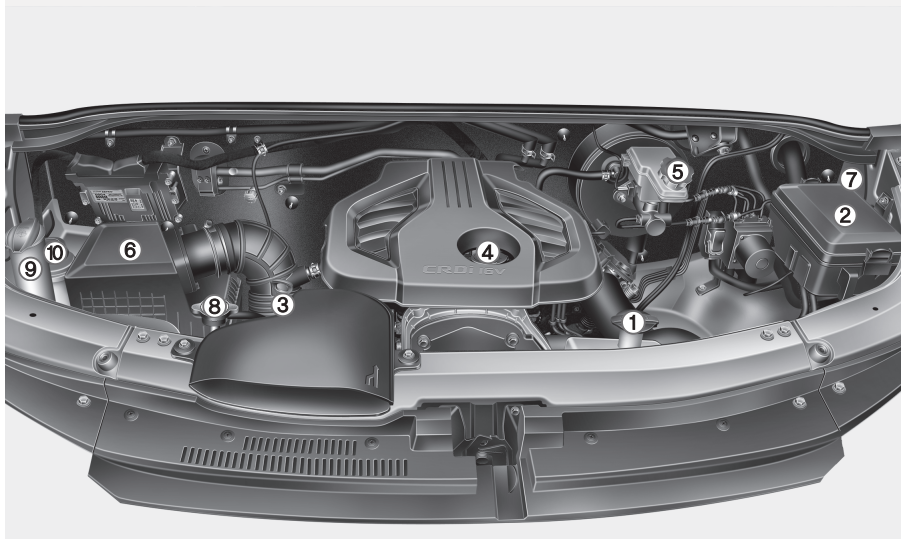
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ENGINE COMPARTMENT

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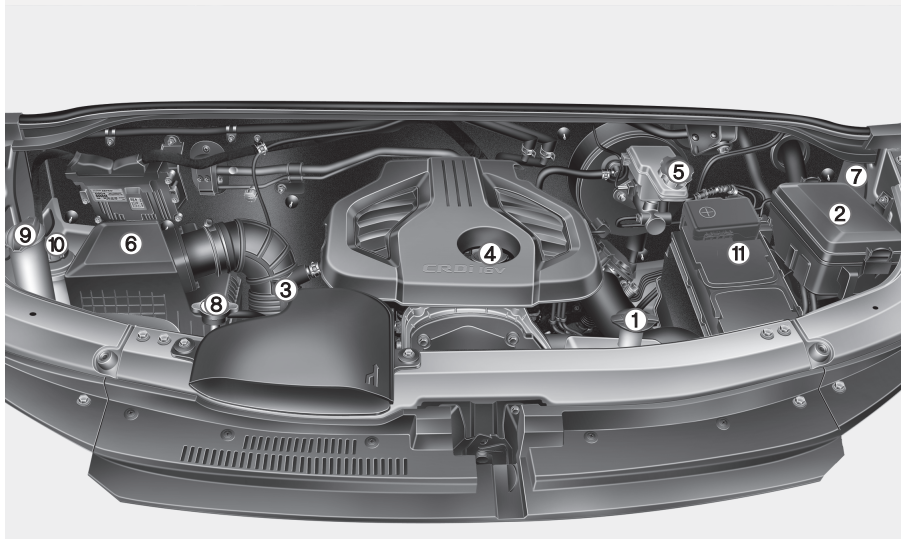


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The actual shape may differ from the illustration.

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The actual shape may differ from the illustration.

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Safety system of your vehicle

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

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IMPORTANT SAFETY PRECAUTIONS

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

Always wear your seat belt

A seatbelt is the best protection in all types of accidents. An air bag is designed to supplement a seatbelt, not replace it. So even though your vehicle is equipped with air bag, ALWAYS make sure you and your passengers wear seatbelts in a proper manner.

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. Larger children should use a booster seat with the lap/shoulder belt until they can use the seat belt properly without a booster seat.

* The age requirements about the child detrainment differ in each country.

Air bag hazards

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

Driver's distraction

Driver distraction presents a serious and potentially deadly danger, especially for inexperienced drivers. Safety should be the first concern, while driving. 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, caring for other activities to focus on activities other than driving. To reduce your risk of distraction and an accident, follow the below instructions:

- ALWAYS use your mobile devices (i.e., MP3 players, phones, navigation units, etc.), only when your vehicle is safely parked or safely stopped.

-
- **ONLY** use your mobile device when laws and conditions permit its safe usage. **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** distract yourself by using a mobile device, while driving. You have a responsibility to safely drive for your passengers and others on the road, with your hands on the wheel as well as your eyes and attention on the road.

Control your speed

Excessive speed is a major cause of injuries and deaths. Generally, the higher the speed, the greater the risk. However, serious injuries may also occur at lower speeds. Never drive faster than it is safe to do so in accordance with a road condition, regardless of the maximum speed limit.

Keep your vehicle in safe conditions

A flat tire or a mechanical failure may be extremely hazardous. To reduce the possibility of such hazards, check your tire pressures, and perform the maintenance on a regular basis.

SEATS

Safety precautions

Adjust your seat, so that you can sit in a safe, comfortable position. It plays an important role in protecting the driver and passengers, together with the seat belts and air bags in an accident.

WARNING

Do not use a cushion that reduces friction between the seat and the passenger. The passenger's hips may slide under the lap portion of the seat belt during an accident or a sudden stop. Serious or fatal internal injuries may result because the seat belt cannot properly operate.

Air bag

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, as 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.

WARNING

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

- Adjust the driver's seat in the rearmost position, while maintaining the ability to fully control the vehicle.
- Hold the steering wheel with both 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 on the air bags.

Seat belts

Always fasten your seat belt before starting the vehicle.

At all times, passengers should sit upright and be properly restrained.

Infants and small children must be restrained in an appropriate child restraint system. Children who outgrow a booster seat and adults must fasten their seat belts.

WARNING

Take the following precautions to adjust your seat belt:

- NEVER use one seat belt to fasten more than one occupant.
- Always sit in an upright position 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 laps.

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(Continued)

- Do not fasten the seat belt across your neck or over a sharp edge. Always tightly fasten the shoulder strap over your body.
- Be careful that a seat belt does not become caught or jammed.

Front passenger's seats

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

WARNING

Take the following precautions while adjusting your seat:

- NEVER attempt to adjust the seat when the vehicle is motion.

The seat may inadvertently move 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 may interfere with the pedal operation, causing an accident.

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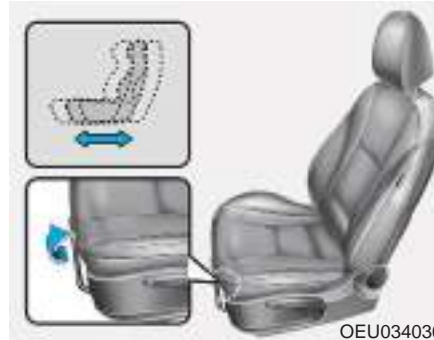
- Do not allow anything to interfere with proper sitting and proper locking of the seat-back.
- Do not place a cigarette lighter on the floor or seat. When you operate the seat, gas may leak, causing a fire.
- When occupants sit in the rear seats, be careful not to injure them, while adjusting your seat position.

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.
- Be careful that your hands or fingers do not get caught in the seat mechanisms, while adjusting your seat.

Forward and backward



To move the seat forward or backwards:

1. Pull up the seat adjustment lever up and hold it.
2. Slide the seat to the desired position.
3. Release the lever and make sure the seat is locked in place.

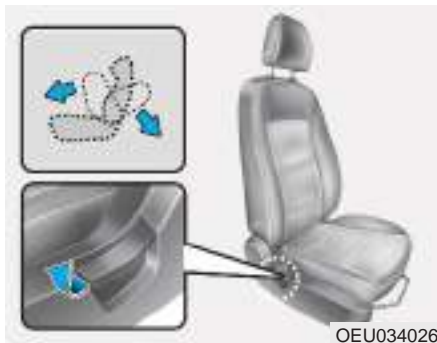
Adjust the seat before driving, and make sure the seat is securely locked by attempting to move forward and backwards without pulling the lever. If the seat moves, it is not securely locked.

Adjusting the seatback recliner



Driver's seat / Front passenger's seat (if equipped)

To recline the seatback to the desired angle, rotate the knob either in the clockwise or in the counter-clockwise direction.



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Front passenger's seat

To recline the seatback: (if equipped)

1. Slightly lean forward and pull up the seatback lever.
2. Carefully lean back on the seat and adjust the seatback angle to the desired position.
3. Release the lever and make sure the seatback is securely locked in place. (The lever must return to its original position to lock the seatback in place.)

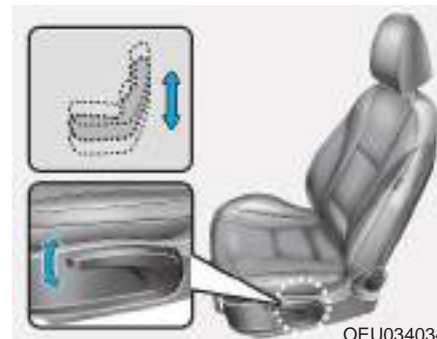
⚠ WARNING

NEVER sit in a reclined seat, when the vehicle is in motion.

A reclined seatback increases your risk of being seriously or fatally injured in the event of a collision or a sudden stop.

Drivers and passengers should **ALWAYS** maintain a good sitting posture – well back in the seat, properly fastened, and straight upright.

Seat cushion height (for driver's seat, if equipped)



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1. To change the height of the seat cushion, pull up the lever or pull it down.
2. Release the lever, when the seat is adjusted to the desired position.

Adjusting the seat cushion



Suspension Fixing (if equipped)

The suspension is fixed by turning the lever.



Spring Suspension (if equipped)

The driver can change the speed of up-and-down motion to be suitable for their weight by turning the knob.

Head restraint



The driver's and front passenger's seats are equipped with a head restraint for their safety and comfort. The head restraint not only provides comfort for the driver and front passengers, but also protects the head and neck in the event of a collision.

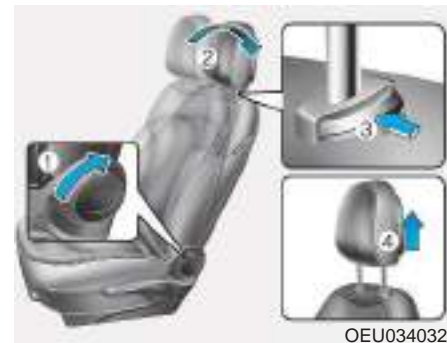
⚠ WARNING

- For maximum effects in case of an accident, the head restraint should be adjusted so the middle of the head restraint is at the same height of the center of gravity of an occupant's head. Generally, the center of gravity of most people's head is at the height of the top of their eyes. Also, adjust the Head restraint as close to your head as possible. For this reason, the use of a cushion that holds the body away from the seat back is not recommended.
- Do not operate the vehicle, when any head restraint is removed. Severe injury may occur in the event of an accident. Head restraints may provide protection against neck injuries, when they are properly adjusted.
- Do not adjust the head restraint of the driver's seat, when the vehicle is in motion.



Adjusting the height up and down

To raise the head restraint, pull it up to the desired height (1). To lower the head restraint, hold the release button (2) on the head restraint support and lower it down to the desired height (3).



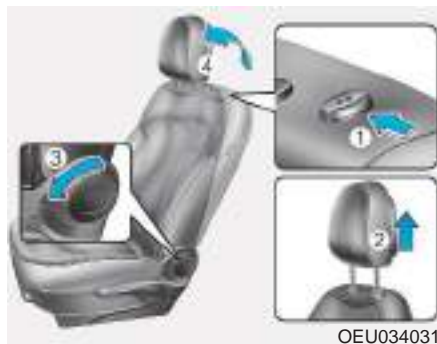
Removal

To remove the head restraint:

1. Recline the seatback (2) by pulling up the seatback lever (1).
2. Raise up the head restraint to the highest.
3. Press and hold the head restraint release button (3) while pulling the head restraint up (4).

⚠ WARNING

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



Reinstall

To reinstall the head restraint:

1. Put the head restraint poles (2) into the holes while pressing the release button (1).
2. Recline the seatback (4) by pulling up the seatback lever (3).
3. Adjust the head restraint to the desired height.

WARNING

Always make sure the head restraint is locked into position after reinstalling or adjusting it.

Seat warmer (if equipped)



The seat warmer is equipped to warm the front seats during cold weather.

With the ignition switch in the ON position, push either of the switches to warm the driver's seat or the front passenger's seat.

In the mild weather or under conditions where the operation of the seat warmer is unnecessary, keep the switches in the "OFF" position.

Information

Even with the seat warmer switch in the ON position, the seat warmer automatically turns ON and OFF depending on the seat temperature.

NOTICE

- Do not use an organic solvent such as thinner, benzene, alcohol and gasoline to clean the seat. Doing so may damage the surface of the heater or seats.
- To prevent the seat warmer from being overheated, do not place anything on the seats that blocks the thermal emission, such as blankets, cushions or seat covers, when the seat warmer is in operation.
- Do not place heavy or sharp objects on the seats equipped with seat warmers. Damage to the seat warming components may occur.
- Do not change the seat cover. It may damage the seat warmer or the air ventilation system.

WARNING

Seat Warmer Burns

Passengers should pay extreme caution while using seat warmers due to the possibility of excess heating or burns. The seat warmer may cause burns even at low temperatures, especially when it is used for a long period of time. In particular, the driver must exercise extreme care for the below passengers:

1. Infants, children, elderly or handicapped persons, or hospital outpatients
2. Persons with sensitive skin or those that burn easily
3. Fatigued individuals
4. Intoxicated individuals
5. Individuals taking medication that can cause drowsiness or sleepiness (sleeping pills, cold tablets, etc.)

Front passenger seat (VAN, Truck)



OEU034040

Center Seatback Console (if equipped)

If you pull down the center seatback console in the double passenger seat, you can use it as a console.



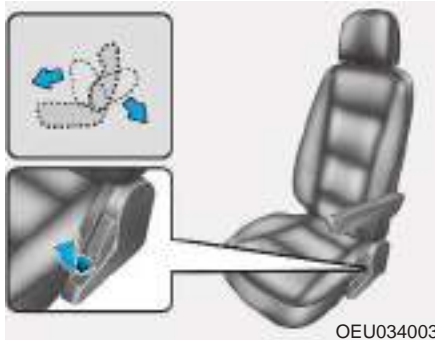
OEU034041

Seat Lower Compartment (if equipped)

If you lift up the cushion in the double passenger seat and move it forward, you can use the lower part of the seat as a storage compartment.

Rear seats

Adjusting seatback angle



To recline the seatback, lean forward to take your weight off, and then pull up the seatback lever on the side of the seat. Now lean back to adjust the seatback to the desired angle. To lock the seatback in position, release the seatback lever.

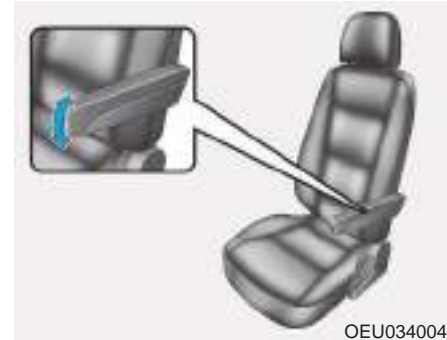
⚠ WARNING

NEVER ride in a reclined seat, when the vehicle is in motion.

Riding in a reclined seat increases your risk of being seriously or fatally injured in the event of a collision or sudden stop.

Drivers and passengers should **ALWAYS** sit well back in their seats, properly fastened, and in a properly upright position.

Adjusting the armrest angle (if equipped)



The armrest will be raised or lowered manually.

To raise the armrest, pull it up.

To lower it, press the armrest down.

Seatback pocket (for rear passengers)



The seatback pocket is provided on the back of the rear passenger's seats.

⚠ WARNING

Seatback Pockets

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

Passenger seat capacity label (if equipped)



The passenger seat capacity label specifies the number of passengers the vehicle can carry.

SEAT BELTS

Seat belt restraint system

⚠ WARNING

- For maximum restraint protection, the seat belts must always be fastened whenever the vehicle is in motion.
- Seat belts are the most effective when seatbacks are in the upright position.
- Children at the age of 12 and under must always be properly restrained in rear seats.

Never allow children to ride in the front passenger's seat.

When a child at the age of 13 and over sits in the front passenger's seat, he/she must be properly fastened, and the seat should be positioned in the rearmost position.

(Continued)

(Continued)

- Never fasten the shoulder portion of the seat belt under your arm or behind your back. An improperly positioned shoulder portion of the seat belt may cause serious injuries in a crash. The shoulder portion of the seat belt should be positioned midway over your shoulder across your collarbone.
- Never fasten a seat belt over fragile objects. When there is a sudden stop or impact, the seat belt may be damaged.
- Be careful not to twist seat belts. A twisted seat belt cannot properly protect the passenger. In a collision, it may even cut into you. Make sure the belt webbing is straight and untwisted.
- Be careful not to damage the seat belt webbing or hardware. When the seat belt webbing or hardware is damaged, immediately replace it.

 **WARNING**

Seat belts are designed to be fastened upon the bony structure of the body, and should be worn low across the front pelvis, chest or shoulders, as applicable; wearing the lap portion of the seat belt across the abdominal area must be avoided.

Seat belts should be adjusted as firmly as possible, consistent with comfort, to provide the protection for which they are designed.

A slack seat belt greatly reduce the protection afforded to the passengers.

Be careful not to contaminate the webbing with polishes, oils and chemicals, and particularly battery acid.

Carefully clean it with mild soap and water.

(Continued)

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The seat belt should be replaced, when the webbing becomes frayed, contaminated, or damaged. It is essential to replace the entire assembly after a severe impact even if damage to the assembly is not obvious. Seat belts should not be fastened with straps twisted. Each belt assembly must be fastened over only one occupant; it is dangerous to fasten a seat belt over a child, who sits on an adult's laps.

⚠ WARNING

- No modifications or additions should be made by the user, as it may fail the seat belt adjusting devices, or fail the seat belt assembly from being adjusted to remove slack to be tightly fastened without any slack.
- When you fasten the seat belt, be careful not to latch the seat belt tap in the buckles of other seats.

It is very dangerous, and you may not be properly protected by the seat belt.

- Do not fasten or unfasten the seat belt in a repetitive manner, while driving. This may result in loss of control, and an accident, causing death, serious injury, or property damage.

(Continued)

(Continued)

- While fastening the seat belt, make sure that the seat belt is not fastened over a hard or a fragile object.
- Make sure that there is nothing in the buckle. If so, the seat belt may not be securely fastened.

Seat belt warning

As a reminder to the driver, the seat belt warning light is turned ON for approximately 6 seconds each time you turn the ignition switch ON regardless of belt fastening.

When the vehicle start to move without fastening the seat belt with the ignition switch ON, the seat belt warning light flashes until it stops.

When the vehicle drives faster than 20km/h without fastening the seat belt with the ignition switch is ON, the seat belt warning chime will sound for approximately 100 seconds.

However, this chime will stop, when the seat belt is fastened.
(if equipped)

Lap/shoulder belt (for front passenger)



To fasten your seat belt:

To fasten your seat belt, pull it out of the retractor and insert its metal tab (1) into the buckle (2). There will be a "clicking" sound, when the metal tab is locked into the buckle.

The shoulder portion will be automatically retracted to the proper length, when the lap portion is manually adjusted to fit snugly around your hips. When you slowly lean forward, the seat belt will extend in accordance with your movement.

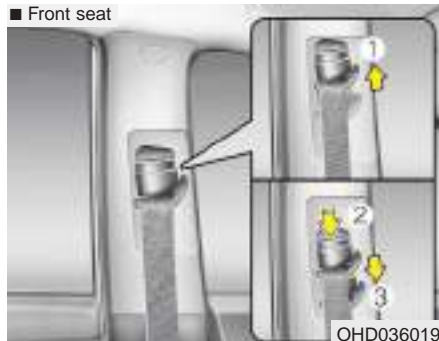
However, in a sudden stop or impact, the seat belt will lock in position. It will also lock in position, when you try to lean forward too quickly.

***i* Information**

When the seat belt is not pulled out from the retractor, firmly pull out the seat belt and release it. Then, it will be smoothly pulled out.

Height adjustment

■ Front seat



You can adjust the height of the seat belt anchor to one of 4 positions for your comfort and safety.

When the height of the seat belt anchor is too close to the occupant's neck, the most effective protection is not guaranteed.

The shoulder portion should be fastened across your chest and midway over your shoulder nearest the door, not over your neck.

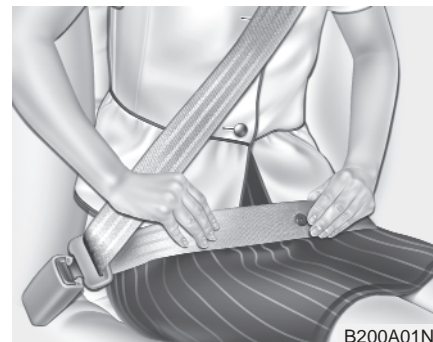
To adjust the height of the seat belt anchor, pull it up or pull it down to an appropriate height.

To raise up the seat belt anchor, pull it up (1). To lower it down, pull it down (3) while pressing the release button (2).

Release the button to lock the anchor in position. Attempt to slide up and down the anchor to make sure that it is securely locked in position.

WARNING

- **Make the shoulder belt sure that the anchor is locked in position at the appropriate height. Never fasten the shoulder portion across your neck or face. Improperly positioned seat belts may cause serious injury in an accident.**
- **Failure to replace seat belts after an accident may leave you with damaged seat belts that will not provide protection in the event of another collision, resulting in personal injury or death. Immediately replace your seat belts after an accident.**



WARNING

You should fasten the lap belt as low as possible and snugly across your hips, not across your waist. When the lap belt is located too high across your waist, it may increase the chance of injury in the event of a collision. Both arms should not be under or over the seat belt. Rather, one should be over and the other under, as shown in the illustration. Never fasten the seat belt under the arm nearest the door.

To release the seat belt:



The metal tap is released upon pressing the release button (1) on the buckle.

When it is released, the seat belt is automatically retracted back into the retractor.

When the metal tap is not released, check the belt whether it is twisted or not. Then, try it again.

**2 point static belt
(for rear passengers)**



To fasten your belt

To fasten the 2-point static belt, insert the metal tab (1) into the buckle (2). There will be a "clicking" sound, when the metal tab is locked into the buckle. Make sure the seat belt is securely locked and that the seat belt is not twisted.



To release the seat belt

The metal tap is released upon pressing the release button (1) on the buckle.

When it is released, the seat belt is automatically retracted back into the retractor.

When the metal tap is not released, check the belt whether it is twisted or not. Then, try it again.

Pregnant women/child

The use of a seat belt is recommended for pregnant women/child to reduce the risk of injury in an accident. The lap belt should be fastened as low and snugly as possible across the hips, not across the abdomen. For specific recommendations, consult a physician.

Pre-tensioner seat belt (if equipped)



OEU034037

Your vehicle is equipped with driver's and front passenger's pre-tensioner seat belts. The purpose of the pre-tensioner is to make sure that the seat belts tightly fits against the occupant's body in certain frontal collisions. The pre-tensioner seat belt is activated in a crash where the frontal colliding impact is severe enough.

When the vehicle suddenly stops, or when the occupant lean forward too quickly, the seat belt retractor will lock in position. In a certain frontal collision, the pre-tensioner will activate and slightly retract the seat belt to tightly restrain the occupant's body.

When the system detects excessive tension on the driver's or the front passenger's seat belt, the load limiter inside the pre-tensioner releases some pressure on the affected seat belt. (if equipped)

⚠ WARNING

For your safety, make sure that the belt webbing is not loose or twisted and always sit properly on your seat.

 **WARNING**

To obtain maximum benefit from a pre-tensioner seat belt:

1. The seat belt must be properly fastened and adjusted. Please read and follow all of the important safety information and precautions about your vehicle's occupant safety features - including seat belts and air bags - that are provided in this manual.
2. Make sure you and your passengers always and properly fasten the seat belts.

NOTICE

- When the pre-tensioner seat belt is activated, there will be a loud noise and fine dusts. These may appear to be smoke, and be visible in the passenger compartment. These are normal operating conditions, and does not indicate a problem.
- Although they are harmless substances, the fine dusts may cause skin irritation. These should not be inhaled for a prolonged period of time.
Thoroughly wash all the exposed skin areas after an accident, when the pre-tensioner seat belt was activated.
- Because the sensor that activates the SRS air bag is connected with the pre-tensioner seat belt, the SRS air bag warning light on the instrument cluster will illuminate for approximately 6 seconds after turning ON the ignition switch, and then it goes OFF.

 **CAUTION**

When the pre-tensioner seat belt does not properly operate, the SRS air bag warning light illuminates even without a malfunction of the SRS air bag. When the SRS air bag warning light does not illuminate after turning ON the ignition switch, when it remains ON longer than 6 seconds, or when it remains ON while driving the vehicle, we recommend that the system be inspected by an authorized HYUNDAI dealer.

 **WARNING**

- Pre-tensioners are designed to operate only one time. After an activation, pre-tensioner seat belts must be replaced. All seat belts of any type must be replaced, when they were fastened during a collision.
- The pre-tensioner seat belt assembly mechanisms become hot while being activated. Do not touch the pre-tensioner seat belt assembly for several minutes, after it is activated.
- Do not attempt to inspect or replace the pre-tensioner seat belts by yourself. We recommend that the system be serviced by an authorized HYUNDAI dealer.
- Do not strike the pre-tensioner seat belt assemblies with a strong impact.

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- Do not attempt to maintain or repair the pre-tensioner seat belt by yourself in any manner.
- Improper handling of the pre-tensioner seat belt assemblies, and failure to heed the warnings not to strike, modify, inspect, replace, maintain or repair the pre-tensioner seat belt assemblies may lead to improper operation or inadvertent activation, or even serious injury.
- Always fasten the seat belts while driving or riding in vehicle.
- Before scrapping your vehicle or the pre-tensioner seat belt, we recommend that you contact an authorized HYUNDAI dealer.

 **CAUTION**

Repair works on the front area of the vehicle may damage the pre-tensioner seat belt system.

Therefore, we recommend that the system be maintained and repaired by an authorized HYUNDAI dealer.

Seat belt precautions

WARNING

All occupants of the vehicle must and always fasten their seat belts. Seat belts and child restraints reduce the risk of serious or fatal injury in the event of a collision or sudden stop. Without a seat belt, occupants may slide too close to a deploying air bag, strike the interior structure or be thrown out of the vehicle. Properly worn seat belts greatly reduce these hazards.

Always follow the precautions of this manual, about seat belts, air bags and occupant seats.

Larger children

Children who are too large for child restraint systems should always sit in a rear seat and use the available lap/shoulder belts. The lap belt should be fastened as low and snug-gly as possible across the hips.

Frequently check the belt tightness.

A child's squirming may move the belt out of position. Children are afforded the most safety in the event of an accident when they are restrained by a proper restraint system in a rear seat. When a large child (at the age of 13 and over) must be seated in the front seat, the child should be securely restrained by the available lap/shoulder belt, and the seat should be placed in the rear-most position. Children at the age of 12 and under should be restrained securely in a rear seat. NEVER place a child at the age of 12 and under in a front seat.

NEVER place a rear facing child seat in the front seat of a vehicle.

When the shoulder belt is fastened slightly across the child's neck or face, move the child closer to the center of the vehicle. When the shoulder belt is still fastened slightly across their face or neck, they need to be returned to a child restraint system.

WARNING

Shoulder belts on small children

- **Never fasten a shoulder even slightly across a child's neck or face, when the vehicle is in motion.**
- **When seat belts are improperly fastened over children, there is a risk of death or serious injury.**

Pregnant women

The use of a seat belt is recommended for pregnant women to lessen the chance of injury in an accident. When a seat belt is used, the lap belt portion should be placed as low and snugly as possible on the hips, not across the abdomen. For specific recommendations, consult a physician.

⚠ WARNING

Pregnant women

Pregnant women must never fasten the lap belt across the abdomen area where they have a baby. The belt may imply a strong impact on their abdomen in an accident.

Injured person

A seat belt should be fastened when an injured person is transported. When this is necessary, you should consult a physician for recommendations.

One person per belt

Two people (including children) should never be fastened by a single seat belt. This may increase the severity of injury in case of an accident.

Do not lie down

To reduce the risk of injury in the event of an accident and to guarantee the maximum restraining effects, all passengers should sit in an upright position when the vehicle is in motion. A seat belt cannot provide proper protection, when the person lies down in a rear seat or sit in a reclined position in a front seat.

⚠ WARNING

Riding in a reclined seat increases your risk of serious or fatal injury in the event of a collision or a sudden stop.

The protection of your restraint system (seat belts and air bags) is greatly compromised, when your seat is reclined. Seat belts must be snugly fastened across your hips and chest to properly operate. The more the seatback is reclined, the more likely an occupant will slide under the lap belt, getting serious internal injury. Or, the shoulder belt may apply a strong impact on an occupant's neck. Drivers and passengers should always sit well back in their seats, properly belted, and in an upright position.

Care of seat belts

Seat belt systems should never be disassembled or modified. In addition, care should be taken not to damage the seat belts and the hardware with the seat hinges, doors or others.

WARNING

When you fold up a rear seat-back to its upright position, after folding it down, be careful not to damage the seat belt webbing or the buckle. Make sure that the webbing or buckle does not get caught or pinched inside the rear seat mechanism.

A damaged webbing or buckle will not be strong and may fail to protect an occupant during a collision or sudden stop, resulting in serious injury. If the webbing or buckles are damaged, immediately replace them.

Periodic inspection

It is recommended that all seat belts be periodically inspected for a wear-out or a damage of any kind. Any damaged parts should be immediately replaced.

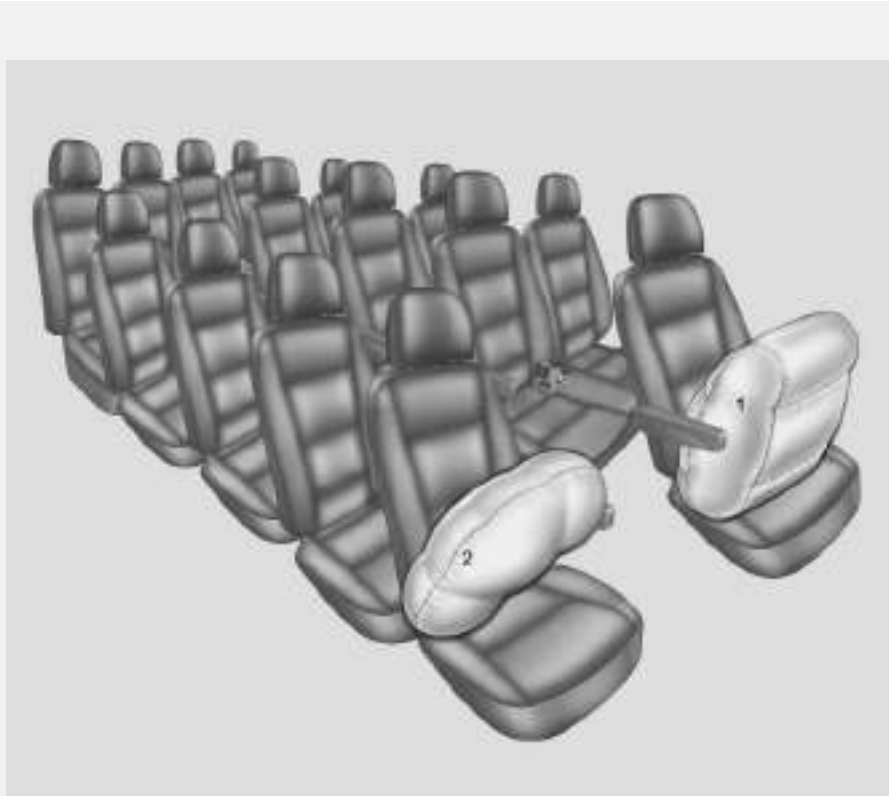
Keep belts clean and dry

Seat belts should be kept clean and dry. When the seat belts are contaminated, clean them with a mild soap and warm water. Bleach, dye, strong detergents or abrasives should not be used, because they may damage or weaken the fabric.

When to replace seat belts

An entire seat belt assembly should be replaced, when the vehicle was involved in an accident. This should be done, even when a damage is invisible. We recommend that you ask additional questions concerning seat belt operation to an authorized HYUNDAI dealer.

AIR BAG – SUPPLEMENTAL RESTRAINT SYSTEM (IF EQUIPPED)



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

OEU034006

- (1) Driver's front air bag
 - (2) Passenger's front air bag*
- * : if equipped

⚠ WARNING

- Even your vehicle is equipped with air bags, you and your passengers must always fasten the seat belts in order to minimize the risk and severity of injury in the event of a collision or a rollover.
- The SRS and the pretensioners seat belt contain explosive chemicals. When a vehicle is scrapped without removing the SRS or the pretensioner seat belt, it may cause a fire. Before scraping a vehicle, we recommend that you contact an authorized HYUNDAI dealer.
- Keep the SRS parts and wirings away from water or any liquid. When those are exposed to water or liquids, the SRS components may become inoperative, possibly causing fire or severe injury.

How does the air bag operate?

- Air bags are activated (able to inflate if necessary) only when the ignition switch is turned to the ON or START position.
- Air bags instantly inflate in the event of a serious frontal collision in order 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 in accordance with 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 a driving speed, an impact angle, a vehicle density/stiffness or a colliding object, which your vehicle strikes with in a collision. Those 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 observe the inflation of the air bags during an accident.

It is more likely that you will simply see the deflated air bags hanging out of the air-bag storage compartments after a collision.

- In order to protect occupants in a severe collision, the air bags must rapidly inflate. The speed of air bag inflation is a consequence of the extremely short colliding time as well as the necessity to inflate the air bag between the occupant and the vehicle structure before the occupant strikes with the vehicle structure. This fast inflating speed reduces the risk of serious or life-threatening injury in a severe collision. This is the core part in designing an air bag.

However, air bag inflation may also cause injury, such as a facial abrasion, a bruise and a broken bones, because the air bags expand with a great deal of force.

- There are certain circumstances under which the air bag installed in the steering wheel may cause fatal injury, especially when the occupant is positioned excessively close to the steering wheel.

WARNING

- To avoid severe personal injury or death caused by deploying air bags in a collision, the driver should sit in the rearmost position from the air bag installed in the steering wheel (at least 250 mm (10 inches) away). The front passengers should always move their seats as far back as possible and sit back in their seats.
- Air bags instantly inflate in the event of a collision. Thus, passengers may be injured by the inflating air bag, when they are in an improper position.
- Air bag inflation may cause injury, such as facial/bodily abrasions, injuries by broken glasses, or skin burns.

Noise and smoke

When the air bags inflate, they make a loud noise, leaving smoke and powder inside 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 due to the contact of your chest with both the seat belt and the air bag, as well as due to the inhaled smoke and powder. **Immediately open the doors/windows after the inflation of the air bag in order to reduce discomfort and prevent a prolonged exposure to the smoke and powder.**

Though the smoke and powder are non-toxic, they may cause skin irritation (for eyes, nose and throat, etc). In this case, immediately wash the irritated area with cold water. Consult a doctor, if the symptom persists.

⚠ WARNING

When the air bags deploy, the air bag components inside the steering wheel and/or the instrument cluster become extremely hot. To prevent injury, do not touch the air bag components, immediately after an air bag inflates.

Do not install a child restraint on the front passenger seat

■ Type A



1JBH3051

■ Type B



OYDESA2042

■ Type C



OLM034310

Never place a rear-facing child restraint in the front passenger's seat. If the air bag deploys, it would impact the rear-facing child restraint, causing serious or fatal injury.

In addition, do not place front-facing child restraints in the front passenger's seat either. If the front passenger air bag inflates, it would cause serious or fatal injuries to the child.

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.**
- **Never put a child restraint in the front passenger's seat. If the front passenger air bag inflates, it would cause serious or fatal injuries.**

Air bag warning light



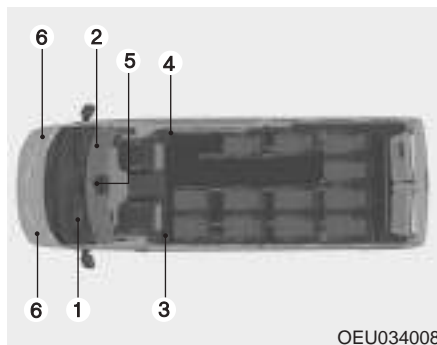
W7-147

The purpose of the air bag warning light on your instrument cluster is to alert you of a potential problem with your air bag - Supplemental Restraint System (SRS). The warning light illuminates for approximately 6 seconds, after turning ON the ignition switch. Then, it goes OFF.

Check the system for the below symptoms:

- The light does not briefly illuminate, after turning ON the ignition switch.
- The light remains ON longer than approximately 6 seconds.
- The light remains ON, when the vehicle is in motion.

SRS components and functions



The SRS consists of the following components:

- 1.Driver's front airbag module
- 2.Passenger's front airbag module
- 3.Driver's pre-tensioner assembly
- 4.Passenger's pre-tensioner assembly
- 5.SRS control module (SRSCM)
- 6.Front impact sensors*

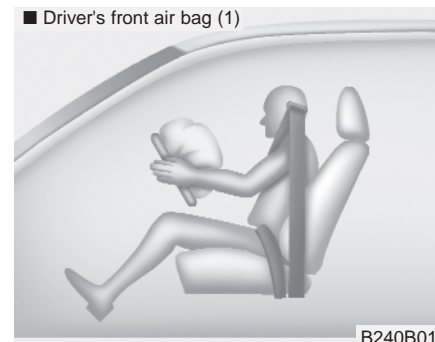
* : if equipped

When the ignition switch is turned ON, the SRSCM continually monitors all the SRS components, to determine whether an impact is severe enough to deploy an air bag or a pre-tensioner seat belt.

The SRS air bag warning light on the instrument cluster illuminates for approximately 6 seconds after turning ON the ignition switch. Then, it goes OFF.

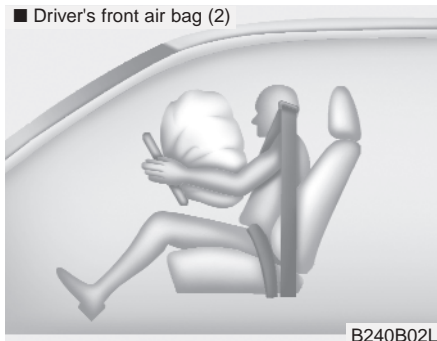
When any of the following conditions occurs, this indicates a SRS malfunction. We recommend that the system be inspected by an authorized HYUNDAI dealer.

- The light does not briefly illuminate after turning ON the ignition switch.
- The light remains ON longer than 6 seconds.
- The light remains ON, when the vehicle is in motion.



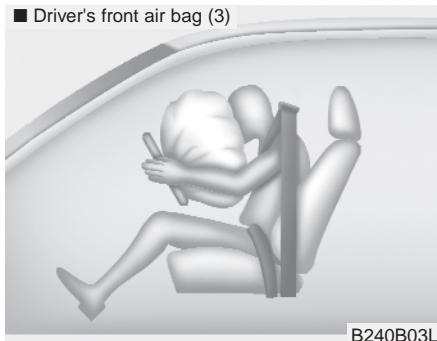
The front air bag modules are located inside both the steering wheel and the front panel above the glove box. When the SRSCM detects a sufficient impact at the frontal part of the vehicle, it automatically deploys the front air bags.

■ Driver's front air bag (2)



To deploy, the pad cover tears apart under pressure of the air-bag inflating power. Further opening of the covers then allows full inflation of the air bags.

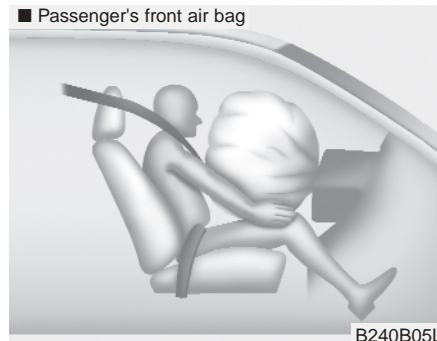
■ Driver's front air bag (3)



A fully inflated air bag, in combination with a properly fastened seat belt, slows the speed of the driver's or the front passenger's falling forward, reducing the risk of head/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.

■ Passenger's front air bag



WARNING

- Do not install or place any accessories (i.e. drink holder, cassette holder, sticker, etc.) on the front panel above the glove box, where a front passenger's air bag is installed. Such accessories may become dangerous projectiles and cause injury, when a front passenger's air bag inflates.
- Do not install or place a container of liquid air freshener near or on the instrument cluster.

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It may become a dangerous projectile and cause injury, when a front passenger's air bag inflates.

WARNING

- When an air bag deploys, there may be a loud noise as well as fine dusts released in the vehicle. These conditions are normal and are not hazardous - the air bags are packed with fine powders. The dust generated during air bag deployment may cause skin/eye irritation as well as aggravate asthma for some persons. Always wash all exposed skin areas thoroughly with lukewarm water and a mild soap after an accident in which the air bags were deployed.

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(Continued)

- The SRS operates, only after turning ON the ignition switch. When the SRS air bag warning light does not illuminate after turning ON the ignition switch, when light continuously remains ON longer than approximately 6 seconds, or when the light remains ON while driving, the SRS does not properly operate.

In this case, we recommend that the system be inspected by an authorized HYUNDAI dealer.

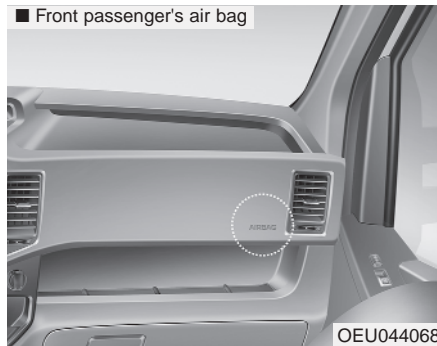
- Before replacing a fuse or disconnecting a battery terminal, turn the ignition switch to the LOCK position and remove the ignition key. Never remove or replace the air bag related fuse(s) when the ignition switch is in the ON position. Failure to heed this warning will cause the SRS air bag warning light to illuminate.

Driver's and front passenger's air bag (if equipped)



Your vehicle is equipped with a supplemental restraint system (air bag) and lap/shoulder belts for both the driver and the front passenger. The presence of the system is indicated by the letters, "SRS AIR BAG," which are embossed on the steering wheel and the front panel above the glove box.

The SRS consists of air bags, which are installed under the pad cover of the steering wheel and under the front panel above the glove box.



The purpose of the SRS is to provide the driver and/or the front passenger with additional protection than that offered only by the seat belt system in case of a frontal impact of sufficient severity.

WARNING

Always use seat belts and child restraints – every trip, every time, everyone! Air bags inflate with considerable force and in the blink of an eye. Seat belts help keep occupants in proper position to obtain maximum benefit from the air bag. Even with air bags, improperly and unbelted occupants may be severely injured when the air bag inflates. Always follow the precautions about seat belts, air bags and occupant safety, as specified in this manual.

To reduce the chance of serious or fatal injuries and receive the maximum safety benefit from your restraint system:

- Never install a child restraint or a booster seat in a front seat to sit a child.
- ABC - Always Buckle Children in a rear seat. It is the safest place for children of any ages to ride.

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- Front air bags may injure occupants, who improperly sit in a front seat.
- Locate your seat in the rear-most position from the front air bags, while still maintaining control of the vehicle.
- You and your passengers should never sit or lean unnecessarily close to the air bags. Improperly positioned drivers and passengers may be severely injured by inflating air bags.
- Never lean against the door or center console - always sit in an upright position.

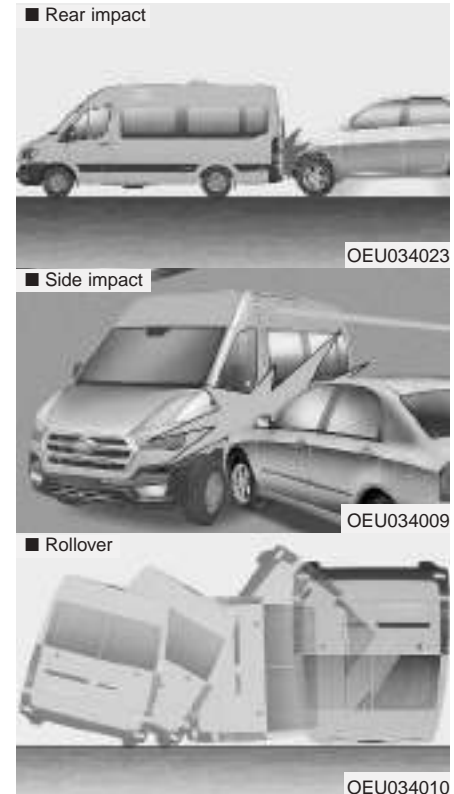
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- No objects should be placed over or near the air bag modules on the steering wheel, the instrument cluster, and the front panel above the glove box. Such an object may cause harm in a crash of which impact is severe enough to deploy an air bag.
- Do not modify or disconnect the SRS wires or the SRS components. Doing so may result in injury by accidentally deploying the air bags or by deactivating the SRS.
- When the SRS air bag warning light remains ON, while driving, we recommend that the system be inspected by an authorized HYUNDAI dealer.

(Continued)**(Continued)**

- Air bags should be used only once - we recommend that the system be replaced by an authorized HYUNDAI dealer after an accident.
- The SRS is designed to deploy the front air bags only when an impact is sufficiently severe and when the impact angle is less than 30° from the forward longitudinal axis of the vehicle. Additionally, the air bags will deploy only once. Seat belts must and always be fastened.
- Front air bags do not deploy in a side-impact, a rear-impact or a rollover. In addition, front air bags will not deploy in a frontal crash of which impact is below the deployment threshold.

(Continued)

(Continued)

- A child restraint system must never be installed in a front seat. The infant or child may be severely injured or killed by a deploying air bag in an accident.
- Children at the age of 12 and under must always be properly restrained in a rear seat. Never allow children to ride in a front passenger's seat. When a child at the age of 13 and over sits in a front seat, he or she must be properly fastened and the seat should be located in the rearmost position.
*The age requirements about the child detrainment differ in each country.
- For the maximum protection in all types of crashes, all occupants including the driver should always wear their seat belts, regardless of the air bag installment in their seats.

(Continued)

(Continued) This is to minimize the risk of severe injury or death in the event of a crash.

Do not sit or lean unnecessarily close to the air bag, when the vehicle is in motion.

- Sitting improperly or out of position may result in serious or fatal injury in a crash. All occupants should sit in an upright position with the seat-back in an upright position, centered on the seat cushion with their seat belt on, legs comfortably extended and their feet rested on the floor until the vehicle is parked and the ignition switch is turned OFF.
- The SRS air bag rapidly inflates to provide protection to occupants in a crash. When an occupant is out of position without fastening a seat belt, the air bag may forcefully strike the occupant, causing serious or fatal injury.

Why did not my air bag go off in a collision? (Inflation and non-inflation conditions of the air bag)

There are many types of accidents in which the air bag would not inflate to provide additional protection.

These include rear impacts, second or third collisions in multiple impact accidents, as well as low speed impacts.



Air bag collision sensors

- (1) SRS control module
- (2) Front impact sensor

⚠ WARNING

- Do not hit or allow any objects to impact the locations where air bags or sensors are installed.

This may cause unexpected air bag deployment, resulting in serious personal injury or death.

- When the sensor is installed out of position, the air bags may deploy in an accident in which they should not or may not deploy, causing severe injury or death.

Therefore, do not attempt to maintain on or around the air bag sensor area.

We recommend that the system be serviced by an authorized HYUNDAI dealer.

(Continued)

(Continued)

- **Problems may arise, when the installment angle of the sensor is changed due to the deformation of the front bumper and the body. We recommend that the system be serviced by an authorized HYUNDAI dealer.**
- **Your vehicle has been designed to absorb impact and deploy the air bag(s) in certain collisions. Installing bumper guards or replacing with an unauthorized bumper may adversely affect the air bag deployment performance.**

Air bag inflation conditions



Front air bags

Front air bags are designed to inflate in a frontal collision depending on an intensity, a speed or an angles of of the front collision.

Although the front air bags (driver's and front passenger's air bags) are designed to inflate only in frontal collisions, they also may inflate in other types of collisions, when a sufficient impact is detected by the front impact.

When the vehicle chassis is impacted by bumps or objects on a rugged road, the air bags may deploy.

Carefully drive on rugged roads or off roads to prevent unintended air bag deployment.

Air bag non-inflation conditions



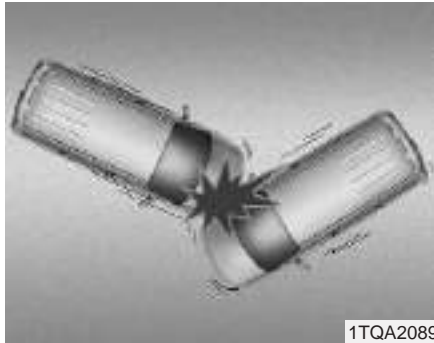
- In certain low-speed collisions, the air bags may not deploy. The air bags are not designed to deploy in such cases where air bags cannot provide benefits beyond the protection of the seat belts.



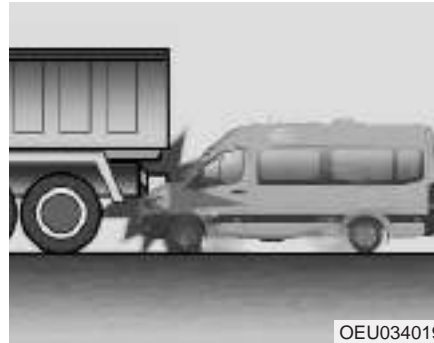
- Frontal air bags are not designed to inflate in rear collisions, where occupants are tilted backwards by the force of the impact. In this case, inflated air bags cannot provide any additional benefit.



- Front air bags may not inflate in side impact collisions, because occupants move to the direction of the collision. Thus, in side impacts, frontal air bag deployment cannot provide additional occupant protection.

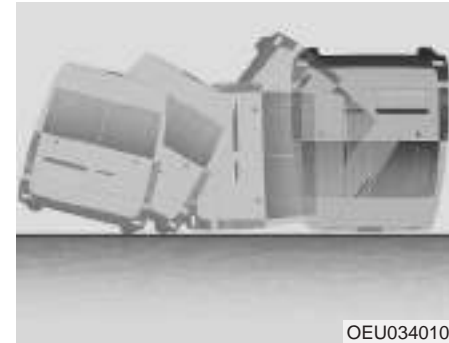


- In an angled collision, the force of impact may direct the occupants in a direction where the air bags cannot provide any additional benefit. Thus, the sensors may not deploy any air bags.

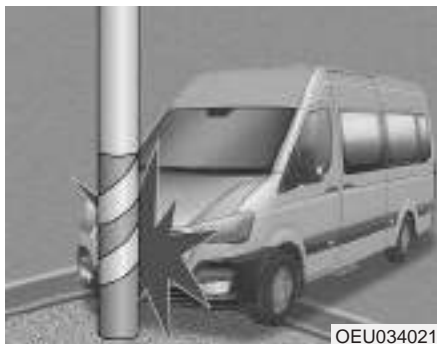


- Just before an impact, drivers often brake heavily. Such heavy braking lowers the front portion of the vehicle, causing it to "ride" under a vehicle ahead with a higher ground clearance.

Air bags may not inflate in this "under-ride" collision, because deceleration may significantly reduce the impact force, which is to be detected by the sensor.



- Air bags may not inflate in rollover accidents because air bag deployment cannot provide protection to the occupants.



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- Air bags may not inflate, when the vehicle collides with objects such as utility poles or trees, where the impacts are concentrated to one point. This is because the full force of the impact is not delivered to the sensors.

SRS Care

The SRS is virtually maintenance-free. Thus, you do not need to maintain any SRS parts by yourself. When the SRS air bag warning light does not illuminate, or when it continuously remains ON, we recommend that the system be inspected by an authorized HYUNDAI dealer.

WARNING

- **Modification to SRS components or wirings, such as adding badges or the pad covers or body-structure modifications, may adversely affect SRS performance and lead to possible injury.**
- **Use only a soft, dry cloth or the one moistened with plain water to clean the air pad cover. Solvents or cleaners may adversely affect the air bag covers and proper deployment.**
- **No objects should be placed over or near the air bag modules on the steering wheel, the instrument cluster, and the front panel above the glove box. Any such object may cause harm, when the vehicle is in a crash severe enough to inflate the air bags.**

(Continued)

(Continued)

- When the air bags inflate, we recommend that the system be replaced by an authorized HYUNDAI dealer.
- Do not modify or disconnect SRS wirings or other SRS components. Such attempts may result in injury, because an air bag may accidentally inflate or deactivate the SRS system.
- Observe any safety precautions to discard the air bag system or to scrape the vehicle. An authorized HYUNDAI dealer knows these precautions and can give you the necessary information.

Failure to follow these precautions and procedures may increase the risk of personal injury.

(Continued)

(Continued)

- When your vehicle is flooded or when the floor mats are soaked with water, do not attempt to start the engine. We recommend that you contact an authorized HYUNDAI dealer.

Additional safety precautions

- **Never let passengers ride in the trunk or on top of a folded-down seatback.** All occupants should sit upright, fully back in their seats with their seat belts fastened and their feet rested on the floor.
- **Passengers should not move out of their seats or change their seat positions, when the vehicle is in motion.** A passenger, who does not fasten a seat belt during a crash or emergency stop, may be thrown against the vehicle interior, against other occupants, or out of the vehicle.
- **Each seat belt is designed to restrain one occupant.** When more than one person uses the same seat belt, they may be seriously injured or killed in a collision.
- **Do not use any accessories on seat belts.** Devices, which the manufacturers claim to improve occupants' comfort, may reduce the protection provided by the seat belt and increase the risk of serious injury in a crash.

- **Passengers should not place hard or sharp objects between themselves and the air bags.** Carrying hard or sharp objects on your laps or in your mouth may result in injury, when an air bag inflates.
- **Keep occupants away from the air bag covers.** All occupants should sit upright, fully back in their seats with their seat belts fastened and their feet rested on the floor. When occupants are too close to the air bag, they may be injured by an inflating air bag.
- **Do not attach or place objects on or near the air bag covers.** Any object attached to or placed on the front air bag covers may interfere with the proper operation of the air bags.
- **Do not modify the front seats.** Modification of the front seats may interfere with the sensing operation of the supplemental restraint system.
- **Do not place items under the front seats.** Placing items under the front seats may interfere with the sensing operation of the supplemental restraint system and wiring harnesses.
- **Never hold an infant or child on your laps.** The infant or child may be seriously injured or killed in the event of a crash. All infants and children should be properly restrained in appropriate child safety seats or seat belts in a rear seat.

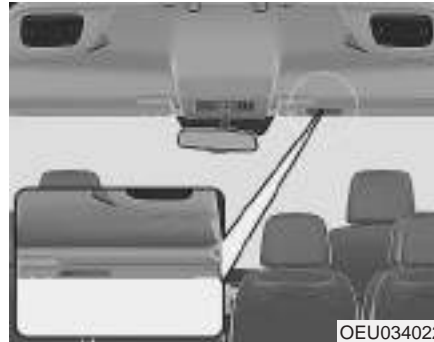
WARNING

- **Sitting improperly or out of position may cause occupants to be shifted too close to a deploying air bag, strike the interior structure or be thrown out of the vehicle, resulting in serious injury or death.**
- **Always sit upright with the seatback in an upright position, centered on the seat cushion with your seat belt on, legs comfortably extended and feet rested on the floor.**

Adding equipment to or modifying your air bag-equipped vehicle

Modification of your vehicle structures, such as the frame, the bumper, the front end, the side sheet metal or the ride height, may affect the operation of your vehicle's air bag system.

Air bag warning label (if equipped)



Air bag warning label is attached to alert the passengers of potential risk of air bag system.

Note that these government warnings focus on the risk to children, we also want you to be aware of the risks which adults are exposed to. Those are specified on previous pages.

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KEYS

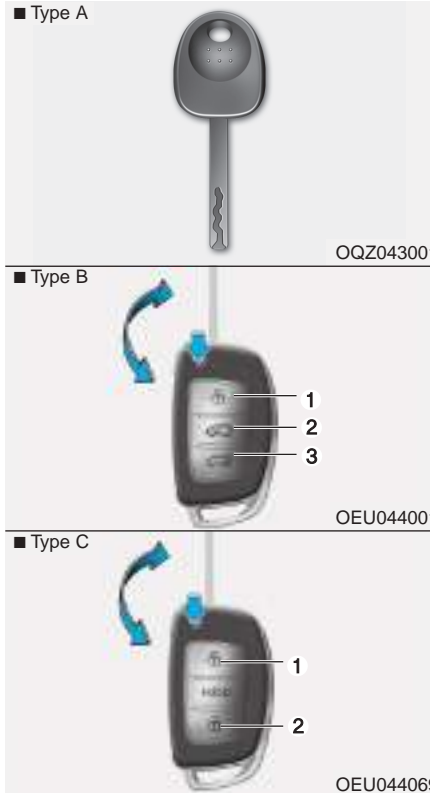
Record your key number



The key code number is stamped on the key code tag attached to the key set.

Should you lose your keys, we recommend that you contact an authorized HYUNDAI dealer. Remove the key code tag and store it in a safe place. Also, record the code number and keep it in a safe and handy place, but not in the vehicle.

Key operations



- Used to start the engine.
- Used to lock and unlock the doors.
- Used to lock and unlock the glove box. (if equipped)

WARNING

We recommend that you use parts for replacement from an authorized HYUNDAI dealer. If an aftermarket key is used, the ignition switch may not return to ON after START. If this happens, the starter will continue to operate causing damage to the starter motor and possible fire due to excessive current in the wiring.

 **WARNING**

Ignition key

Leaving children unattended in a vehicle with the ignition key is dangerous even if the key is not in the ignition or start is ACC or ON position.

Children copy adults and they could place the key in the ignition.

The ignition key would enable children to operate power windows or other controls, or even make the vehicle move, which could result in serious bodily injury or even death.

Never leave the keys in your vehicle with unsupervised children, when the engine is running.

Immobilizer system

Your vehicle may be equipped with an electronic engine immobilizer system to reduce the risk of unauthorized vehicle use.

Your immobilizer system is comprised of a small transponder in the ignition key and electronic devices inside the vehicle.

With the immobilizer system, whenever you insert your ignition key into the ignition switch and turn it to ON, it checks and determines and verifies if the ignition key is valid or not.

If the key is determined to be valid, the engine will start.

If the key is determined to be invalid, the engine will not start.

To deactivate the immobilizer system:

Insert the ignition key into the key cylinder and turn it to the OFF position.

To activate the immobilizer system:

Turn the ignition key to the ON position.

The immobilizer system activates automatically. Without a valid ignition key for your vehicle, the engine will not start.

 **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. Do not leave this number anywhere in your vehicle.

i Information

When starting the engine, do not use the key with other immobilizer keys around. Otherwise the engine may not start or may stop soon after it starts. Keep each key separately not to have any malfunction after you receive your new vehicle.

⚠ CAUTION

Do not put metal accessories near the ignition switch.

The engine may not start for the metal accessories may interrupt the transponder signal from normally transmitting.

i Information

If you need additional keys or lose your keys, we recommend that you consult an authorized HYUNDAI dealer.

NOTICE

The transponder in your ignition 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.

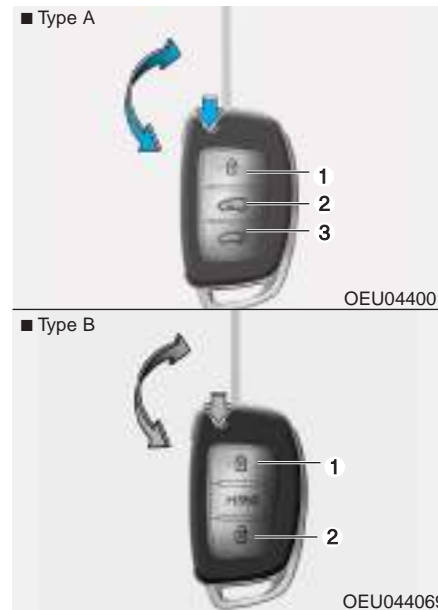
⚠ CAUTION

Do not change, alter or adjust the immobilizer system because it could cause the immobilizer system to malfunction. We recommend that the system be serviced by an authorized HYUNDAI dealer.

Malfunctions caused by improper alterations, adjustments or modifications to the immobilizer system are not covered by your vehicle manufacturer warranty.

REMOTE KEYLESS ENTRY (IF EQUIPPED)

Remote keyless entry system operations



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.

Lock (1)

All doors (and rear door) are locked if the lock button is pressed. If all doors are closed, the hazard warning lights blink once to indicate that all doors are locked. However, if any door remains open, the hazard warning lights will not blink. Close the door and try again to lock the doors.

Unlock (2)

Driver door and front passenger door are unlocked if the unlock button is pressed.

The hazard warning lights will blink twice to indicate that driver door and front passenger door are unlocked.

After depressing this button, the doors will be locked automatically unless you open any door within 30 seconds.

Rear door and mid sliding door unlock (3) (if equipped)

The rear door and mid sliding door are unlocked if the button is pressed for more than 1 second.

The hazard warning lights will blink twice to indicate that the rear door and mid sliding door are unlocked.

However, after pressing this button, the rear door and mid sliding door will lock automatically unless you open the rear door within 30 seconds.

Also, once the rear door and mid sliding door are opened and then closed, the rear door will lock automatically.

Transmitter precautions

The transmitter will not work if any of following occur:

- The ignition key is in ignition switch.
- You exceed the operating distance limit (about 30 m [90 feet]).
- The battery in the transmitter is weak.
- Other vehicles or objects may be blocking the signal.
- The weather is extremely cold.
- The transmitter is close to a radio transmitter such as a radio station or an airport which can interfere with normal operation of the transmitter.

When the transmitter does not work correctly, open and close the door with the ignition key. If you have a problem with the transmitter, we recommend that you contact an authorized HYUNDAI dealer.

- If the transmitter is in close proximity to your cell phone or smart phone, the signal from the transmitter could be blocked by normal operation of your cell phone or smart phone. This is especially important when the phone is active such as making call, receiving calls, text messaging, and/or sending/ receiving emails. Avoid placing the transmitter and your cell phone or smart phone in the same pants or jacket pocket and maintain adequate distance between the two devices.

NOTICE

Keep the transmitter away from water or any liquid. If the keyless entry system is inoperative due to exposure to water or liquids, it will not be covered by your manufacturer vehicle warranty.

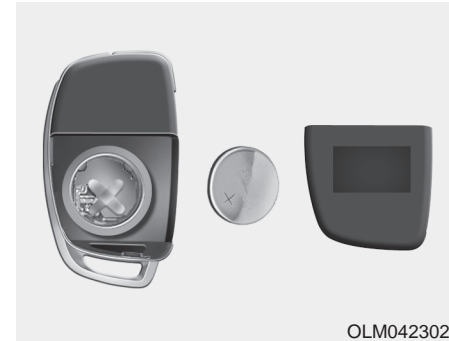
i Information

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

Battery replacement



OLM042302

Transmitter uses a 3 volt lithium battery which will normally last for several years. When replacement is necessary, use the following procedure.

1. Insert a slim tool into the slot and gently pry open the transmitter center cover.
2. Replace the battery with a new battery (CR2032). When replacing the battery, make sure the battery position.
3. Install the battery in the reverse order of removal.

For transmitter replacement, we recommend that you contact an authorized HYUNDAI dealer.

CAUTION

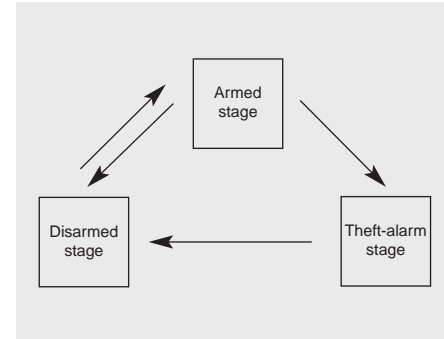
- The keyless entry system transmitter is designed to give you years of trouble-free use, however it can malfunction if exposed to moisture or static electricity. If you are unsure how to use your transmitter or replace the battery, we recommend that you contact an authorized HYUNDAI dealer.
- Using the wrong battery can cause the transmitter to malfunction. Be sure to use the correct battery.
- To avoid damaging the transmitter, don't drop it, get it wet, or expose it to heat or sunlight.

Information

An inappropriately disposed battery can be harmful to the environment and human health.

Dispose the battery according to your local law(s) or regulation.

THEFT-ALARM SYSTEM (IF EQUIPPED)



This system is designed to provide protection from unauthorized entry into the vehicle. This system is operated in three stages: the first is the "Armed" stage, the second is the "Theft-alarm" stage, and the third is the "Disarmed" stage. If triggered, the system provides an audible alarm with blinking of the hazard warning lights.

Armed stage

Park the vehicle and stop the engine. Arm the system as described below.

1. Remove the ignition key from the ignition switch or turn off the engine.
2. Make sure that all doors (and rear door) and the engine hood are closed and latched.
3. Lock the doors by depressing the door lock button on the transmitter. After completion of the steps above, the hazard warning lights will blink once to indicate that the system is armed.
If any door, rear door remains open, the hazard warning lights won't operate and theft-alarm will not arm. Close the door and try again to lock the doors.

If any door (and rear door) remains open, the hazard warning lights won't operate and theft-alarm will not arm. Close the door and try again to lock the doors.

If engine hood remains open, the hazard warning lights won't operate and theft-alarm will not arm. Close the engine hood. The hazard warning lights blink once and theft-alarm arms.

- **Do not arm the system until all passengers have left the vehicle. If the system is armed while a passenger(s) remains in the vehicle, the alarm may be activated when the remaining passenger(s) leave the vehicle. If any door, rear door or engine hood is opened within 30 seconds after entering the armed stage, the system is disarmed to prevent unnecessary alarm.**

Theft-alarm stage

The alarm will be activated if any of the following occurs while the system is armed.

- A front or rear door is opened without using transmitter.
- The rear door is opened without using transmitter.
- The engine hood is opened.

The siren will sound and the hazard warning lights will blink continuously for 27 seconds, unless the system is disarmed. To turn off the system, unlock the doors with the transmitter.

Disarmed stage

The system will be disarmed when:

Transmitter

- The door unlock button is pressed.
- The engine is started.
- The ignition switch is in the "ON" position. (Armed stage status)
- The ignition switch is in the "ACC" position for 27 seconds or more. (Theft-alarm stage status)

After the doors are unlocked, the hazard warning lights will blink twice to indicate that the system is disarmed.

After pressing the unlock button, if any door (or rear door) is not opened within 30 seconds, the system will be rearmed.

i Information

Burglar alarm system

- If the system is not disarmed with the transmitter, insert the key into the ignition switch and start the engine. Then the system will be disarmed.
- If you lose your keys, we recommend that you consult an authorized HYUNDAI dealer.

⚠ CAUTION

Do not change, alter or adjust the theft-alarm system because it could cause the theft-alarm system to malfunction. We recommend that the system be serviced by an authorized HYUNDAI dealer.

Malfunctions caused by improper alterations, adjustments or modifications to the theft-alarm system are not covered by your vehicle manufacturer warranty.

DOOR LOCKS

Operating door locks from outside the vehicle



- Turn the key toward rear of vehicle to unlock and toward front of vehicle to lock.
- If you lock/unlock the door with a key, all vehicle doors will lock/unlock automatically. (if equipped)
- Doors can also be locked and unlocked with the transmitter 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.

NOTICE

- 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.

⚠ WARNING

- If you don't close the door securely, the door may open again.
- Be careful that someone's body and hands are not trapped when closing the door.

Operating door locks from inside the vehicle

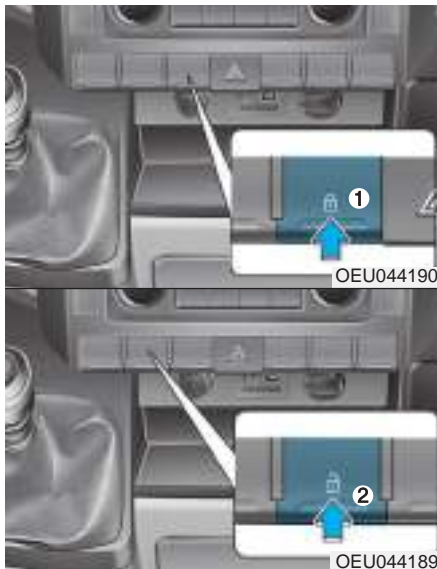
With the door lock button



- To unlock front driver's door and front passenger's door, press the unlock switch (1).
- To lock front driver's door and front passenger's door, press the lock switch (2).
- To open a door, pull the door handle outward.

- If the inner door handle of all doors are pulled when the door lock button is in the lock position, the button will unlock and the door will open. (if equipped)
- Front doors cannot be locked if the ignition key is in the ignition switch and any front door is opened.

With central door lock switch



Operate by depressing the central door lock switch.

- When pushing down lock button (1), all vehicle doors will lock.
- When pushing down unlock button (2), all vehicle doors will unlock.

- However, if any door (and rear door) is open, the doors will not lock even though the central door lock switch is pressed.

WARNING

Doors

- The doors should always be fully closed and locked while the vehicle is in motion to prevent accidental opening of the door. Locked doors will also discourage potential intruders when the vehicle stops or slows.
- Be careful when opening doors and watch for vehicles, motorcycles, bicycles or pedestrians approaching the vehicle in the path of the door. Opening a door when something is approaching can cause damage or injury.

WARNING

Unlocked vehicles

Must be locked the outside door by using key or remote key.

Leaving your vehicle unlocked can invite theft or possible harm to you or others from someone hiding in your vehicle while you are gone. Always remove the ignition key, engage the parking brake, close all windows and lock all doors when leaving your vehicle unattended.

WARNING

Unattended children

An enclosed vehicle can become extremely hot, causing death or severe injury to unattended children or animals who cannot escape the vehicle. Furthermore, 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. Never leave children or animals unattended in your vehicle.

Deadlocks (if equipped)

Some vehicles are equipped with a deadlocking system. Deadlocks prevent opening of a door from either inside or outside the vehicle once the deadlocks have been activated providing an additional measure of vehicle security.

To lock the vehicle using the deadlock function, the doors must be locked using the Remote keyless entry transmitter. To unlock the vehicle, the transmitter must again be used.

WARNING

Do not lock the doors with the transmitter with anybody left in the vehicle. The passenger in the vehicle cannot unlock the doors with the door lock button. For example, if the door is locked with the transmitter, the passenger in the vehicle cannot unlock the door without the transmitter.

Speed sensing door lock system (if equipped)

All doors will be automatically locked after the vehicle speed exceeds 15 km/h. And all doors will be automatically unlocked when you turn the engine off or when you remove the ignition key. (if equipped)

MID SLIDING DOOR (IF EQUIPPED)

WARNING

Your vehicle's sliding door may be equipped with an electrical step. When opening and closing the sliding doors, observe the notes on the electrical step.

CAUTION

Only open the door, when vehicle is parked on a flat ground. Make sure that there is sufficient clearance when opening the doors. Otherwise, It may cause damage of your vehicle or other vehicles.

Your vehicle's sliding door may be equipped with an electrical step. When opening and closing the sliding door, observe the notes on the electrical step. (if equipped)

Opening/closing from the outside



OEU044004

The sliding door is equipped with an active retainer, which engages the door at the end stop when opened.

NOTICE

Your vehicle may be equipped with a long sliding door with an intermediate detent.

You can also lock the sliding door in place around halfway when opening/closing. If you do this, the door does not have to be opened fully when getting into or out of the vehicle. The sliding door is not fully engaged when in the intermediate detent.

To open: Pull door handle (1).

Push back the sliding door using door handle (1) until it engages.

Check the sliding door detent.

To close: Slide the sliding door firmly forwards by handle (1) until it closes.

Opening/closing from the inside



The sliding door is equipped with an active retainer, which engages the door at the end stop when opened.

You can only open a sliding door from the inside if the child-proof locks have not been activated. Locking knob (2) pops up when you open a locked door. Only this sliding door is unlocked. The other doors remain locked.

i Information

Your vehicle may be equipped with a long sliding door with an intermediate detent.

You can also lock the sliding door in place around halfway when opening/closing. If you do this, the door does not have to be opened fully when getting into or out of the vehicle. The sliding door is not fully engaged when in the intermediate detent.

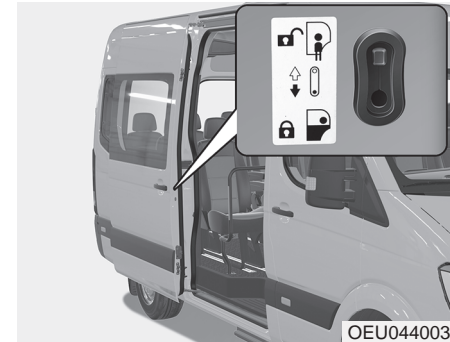
To open: Slide the sliding door by handle (1) back to the stop.

Check the sliding door detent.

The sliding door must be engaged.

To close: Slide the sliding door firmly forwards by handle (1) until it engages.

Child-protector mid sliding door lock (if equipped)



The child safety lock is provided to help prevent children from accidentally opening the mid sliding door from inside the vehicle. The mid sliding door safety locks should be used whenever children are in the vehicle.

1. Open the sliding door.

2. Push the child safety lock located on the mid sliding edge of the door to the "Lock" position. When the child safety lock is in the "Lock (🔒)" position, mid sliding door will not open even though the inner door handle is pulled inside the vehicle.

3. Close the mid sliding door.

To open the mid sliding door, pull the outside door handle.

Even though the door may be unlocked, the mid sliding door will not open by pulling the inner door handle until mid sliding door child safety lock is unlocked.

WARNING

Mid sliding door lock

If children accidentally open the mid sliding door while the vehicle is in motion, they could fall out and be severely injured or killed. To prevent children from opening the mid sliding door from the inside, the mid sliding door safety lock should be used whenever children are in the vehicle.

ELECTRICAL STEP (IF EQUIPPED)



If you turn on the step switch to operate the electrical step, the electrical step automatically extends when the mid sliding door is opened and retracts when it is closed. When the electrical step is either in operation or extended out, the electrical step indicator illuminates on the instrument cluster.

Your vehicle's mid sliding door may be equipped with an electrical step.

When getting in and out of the vehicle, use the grab handles and electrical step.

 **WARNING**

If you do not use the grab handle and the step, you could injure yourself when getting in and out of the vehicle.

To prevent risks:

- **Draw the passengers' attention to the electrical step. Wait until the electrical step is fully extended.**
- **Do not jump out of the vehicle.**
- **Only use the grab handle and step. Only they are designed for such a load.**
- **Keep grab handles, access steps and entry sills free from dirt, e.g. mud, clay, snow and ice.**

The default setting of the STEP switch is the ON position.

Press the STEP switch, when the electrical step is not in use in regardless of opening/closing of the mid-sliding door.

In this case, the LED indicator on the STEP switch goes OFF.

To use the electrical step, re-press the STEP switch. Then, the LED indicator on the STEP switch will illuminate.

Conditions to extend the electrical step:

- 1) The vehicle is stopped.
- 2) The shift gear is in N (Neutral).
- 3) Either the parking brake or the foot brake is applied.

The electrical step automatically retracts in from the “extending-out” position, when the conditions 1 and 2 are unsatisfied.

NOTICE

When the electrical step is extended out, the accelerator inter-lock operates to block the vehicle acceleration for your safety.

 **WARNING**

Never move the shift lever, when any passengers exit or enter the vehicle through the mid sliding door. In this situation, shifting the gear out of N (Neutral) causes the electrical step to abruptly retract and the passengers to fall from it, causing the serious body injury. Always make sure that all passengers enter or exit the vehicle, before shifting the gear.

Operation and obstacle detection

The electrical step (1) is equipped with a device to detect an obstacle in front.

When the electrical step comes into contact with an obstacle while extending out, its movement automatically stops with 'short but repetitive' warning alarms.

To fully extend out the electrical step again, take the following steps. First, remove the obstacle. Second, close and then re-open the mid-sliding door. Finally, repetitively press the STEP switch to turn OFF and turn ON the electrical step.

NOTICE

If the electrical step hinders loading, you can block the step when opening the sliding door by using the obstruction detection. This means that the electrical step remains retracted and a fork-lift truck or another lifting vehicle can move closer to the load compartment.

WARNING

Never drive your vehicle, when the electrical step is extended out. It may cause an accident, strike with other vehicles, and even injure passers-by. Always drive your vehicle with the electrical step fully retracted in.

Electrical step warning alarm

1. Continuous beeping sound

You will hear this type of alarm, whenever the electrical step operates.

2. Short beeping sound (short & repetitive)

You will hear this type of alarm, when the parking/foot brakes are released.

In this case, apply the parking/foot brakes for your safety.

3. Long beeping sound (long & repetitive)

You will hear this type of alarm, when the operation of the electrical step temporarily fails due to operational/electrical problems.

In this case, remove foreign substances, such as sand, mud, and ice. Then, re-press the STEP switch to operate the electrical step.

However, if the problem persists, manually push in the electrical step as a safety measure. Still, we recommend you to have the electrical step repaired by an authorized HYUNDAI dealer.

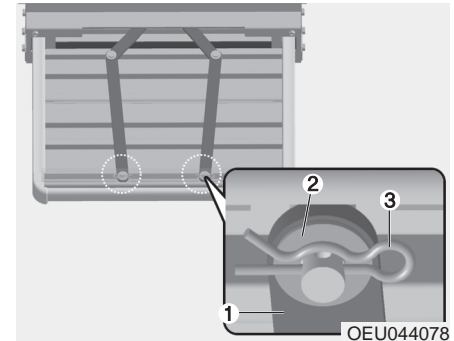
The emergency measures, which you may take in case of the electrical-step failures.

The step friction surface is contaminated with the foreign substances.

The electrical step may not normally operate, when its friction surface is contaminated. Repetitively operate either the step switch or the mid-sliding door 2-to-3 times. When the step operation completely stops for the same reason, manually push in the step and turn OFF the switch. Remove the foreign substances with washing equipment at a vehicle wash (Refer to the regular cleaning in the chapter 3). Then, turn ON the step switch, and operate the mid-sliding door. When the electrical step does not still normally operate, we recommend that the electrical step be checked by an authorized HYUNDAI dealer.

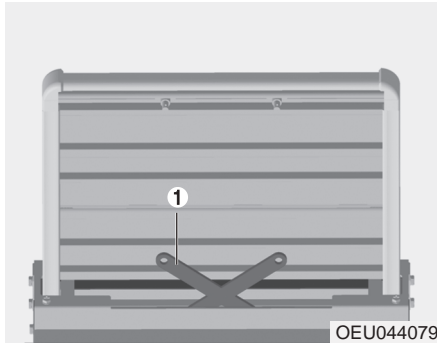
Step does not operate, after being extended out.

Hold the step in position with the R-clip, as explained below. Then, turn OFF the switch and visit a near-by Hyundai dealer for repair services. When you hear the warning alarm while driving, you may stop the alarm by disconnecting the electrical step fuse located in the fuse box under the left side of the driver's seat.

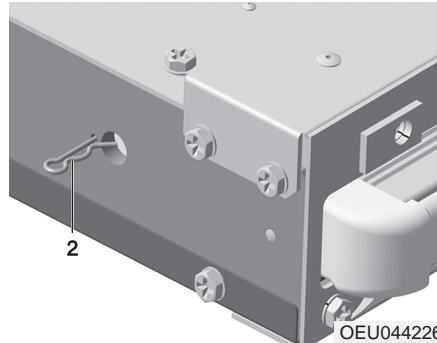


Hold the step in position with the R-clip

1. Pull R-clips (3) on both rods (1) on the underside of the step out of their respective pins. Remove washers (2) and detach both rods (1).



2. Fold rods (1) into the housing in the step.
Push the step into its housing

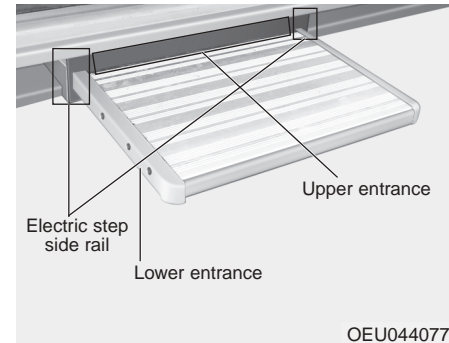


3. Insert R-clips (2) into the step as far as they will go through the holes on both sides of the housing.
The step is secured in its housing.

NOTICE

When securing the step for the first time, you must pierce a film with the spring cutters.

Regular cleaning



Steps should be cleaned at least once per month and more often if conditions dictate.

By using a power hose or even a standard hose frequently ensure no build up of material inside the step. The step will “self-clean” if the mud and dirt is lubricated with a power wash.

Remember to clean not just the tread (the bit you stand on) but the side of the step too.

After cleaning the step should be allowed to dry. When dry, a day or two later perhaps, apply silicon spray to help lubricate the movement of the step.

Do not use grease. Avoid use of oil, it will simply wash away.

If the conditions are particularly bad daily cleaning may be required.

Failure to clean the step regularly or to service the steps may result in the failure of the step in service. This will not be covered under warranty.

We recommend that mud flaps are fitted to your vehicle.

REAR DOOR (IF EQUIPPED)

WARNING

If you open a rear door, you could:

- endanger other people or road users
- be caught by oncoming traffic.

This is particularly the case if you open the rear door more than 90°. There is a risk of an accident and injury.

Only open the rear doors when traffic conditions permit.

Always make sure that the rear door is properly locked.

WARNING

The rear lights will be covered if you open the rear doors to the 90° detent position.

The vehicle will then be unsafe as its rear lights will not be visible for approaching traffic. Other road users may not realize until too late that it is an obstruction. This could lead to an accident.

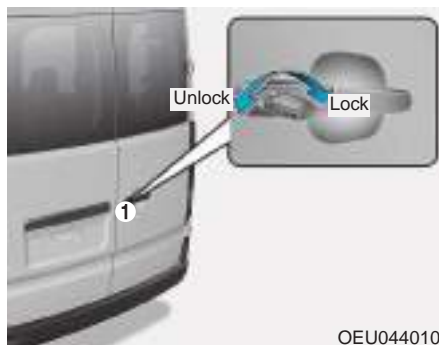
You should ensure that the vehicle is visible from the rear in accordance with the relevant national regulations, by using the warning triangle for instance.

CAUTION

Make sure that there is sufficient clearance when opening the rear doors. You could otherwise damage the vehicle and objects in close range of the rear doors.

Opening/closing from the outside

Opening the right-hand rear door



Pull handle (1) .
Swing the rear door to the side until it engages.

Opening/closing from the inside



Opening the right-hand rear door

Release the lever on the inside of the right rear door.

NOTICE

You can only open the locked rear doors from the inside if the child-proof locks have not been activated.

To unlock: Slide latch (2) to the right. You will see a allow mark.

To open: Pull opening lever (1) up and open the rear door.

NOTICE

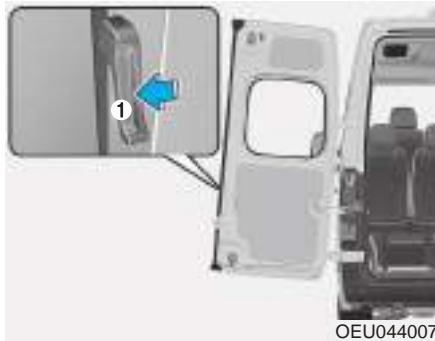
Latch (2) slides to the right when you open a locked rear door from the inside. The white section is visible. Only the rear door unlocks. The other doors remain locked.

To close: Make sure that the left-hand rear door is closed.

Pull the rear door firmly by the door handle to close it.

To lock: Slide latch (2) to the left.

Opening the left-hand rear door

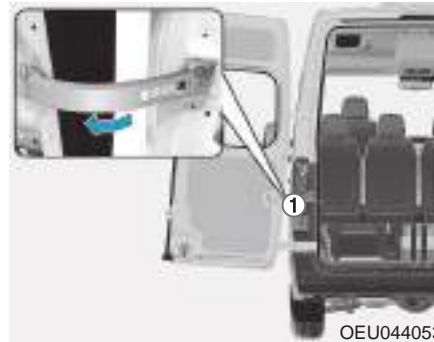


Make sure that the right-hand rear door is open and engaged.

Push release handle (1) in the direction of the arrow.

Swing the rear door to the side until it engages.

Opening the rear doors to an angle of 180° or 270° (if equipped)

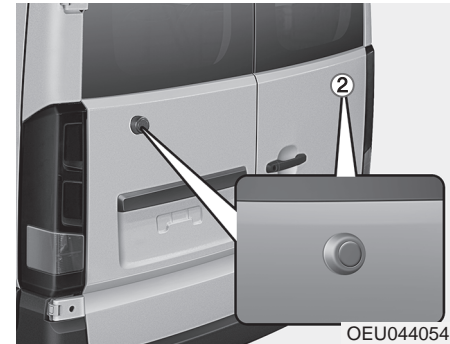


Open the rear door to about 45°.

Pull and hold door retainer (1) in the direction of the arrow.

Open the rear door more than 90°, so that the door retainer cannot engage.

Release the door retainer and open the door to an angle of 180° or 270°.



With the rear door opened to an angle of 270°, push it against magnetic door retainer (2) on the side wall.

When the magnet on the rear door is in contact with magnetic door retainer (2), the rear door is held in this position.

NOTICE

Vehicles with 270° pivoting rear doors:

If door retainer (1) malfunctions while loading, you can swivel it 180° against the spring force and onto the door and engage it. The door retainer remains in this position and will not swivel back to its original position.

Before closing the door, release door retainer (1) from the detent and return it to its original position.

Closing the rear doors from the outside (if equipped)

Pull the rear door away from magnetic door retainer.

Close the left-hand rear door firmly from the outside.

Child-protector rear door lock (if equipped)



The child safety lock is provided to help prevent children from accidentally opening the rear door from inside the vehicle. The rear door safety locks should be used whenever children are in the vehicle.

1. Open the rear door.
2. Turn the child safety lock located on the rear edge of right side door to the "Lock" position. When the child safety lock is position, rear door will not open even though the inner door handle is pulled inside the vehicle.

3. Close the rear door.

To open the rear door, pull the outside door handle.

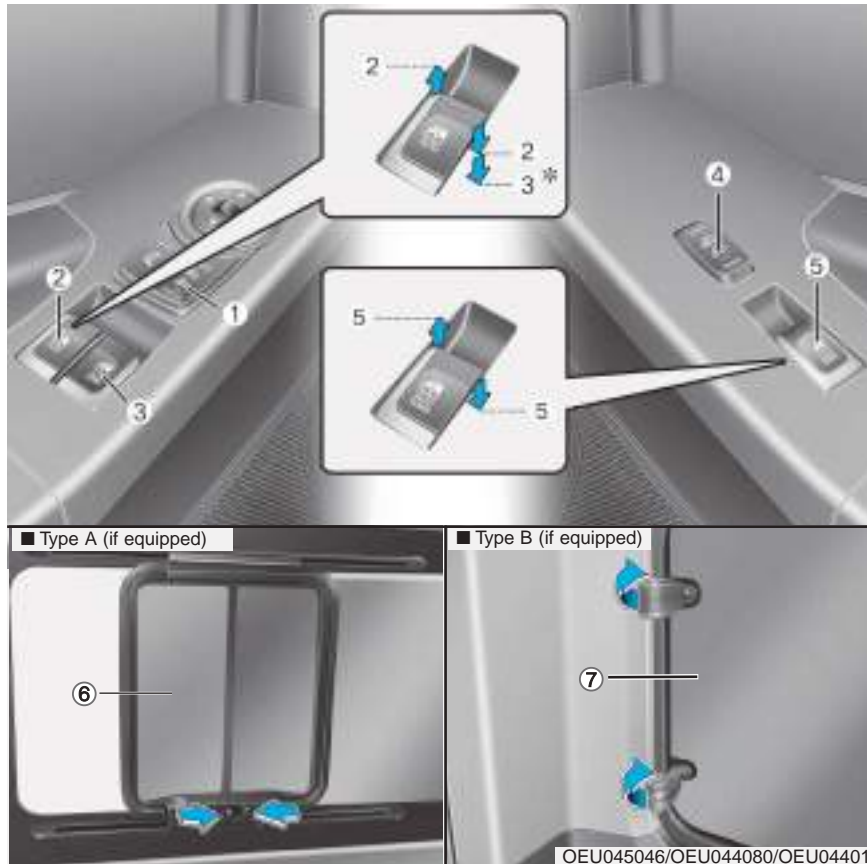
Even though the door may be unlocked, the rear door will not open by pulling the inner door handle until rear door child safety lock is unlocked.

WARNING

Rear door lock

If children accidentally open the rear door while the vehicle is in motion, they could fall out and be severely injured or killed. To prevent children from opening the rear door from the inside, the rear door safety lock should be used whenever children are in the vehicle.

WINDOWS



- (1) Driver's door unlock/lock switch
 - (2) Automatic power window up */ down switch (Driver's side)
 - (3) Automatic power window down switch (Driver's side)
 - (4) Passenger's door unlock / lock switch
 - (5) Automatic power window down switch (Passenger's side)
 - (6) Rear seat window (Type A)
 - (7) Rear seat window (Type B)
- *: if equipped

i Information

In cold and wet climates, power windows may not work properly due to freezing conditions.

Power windows

The ignition switch must be in the ON position for power windows to operate. Each door has a power window switch that controls the door's window. The driver has a power window lock switch which can block the operation of front passenger windows.

The power windows can be operated for approximately 30 seconds after the ignition key is removed or turned to the ACC or LOCK position. However, if the front doors are opened, the power windows cannot be operated even within the 30 seconds period.

Window opening and closing



To open or close a window, press down or pull up the front portion of the corresponding switch to the first detent position (2).

Auto down window



Pressing the power window switch momentarily to the second detent position (3) completely lowers the driver's window even when the switch is released. To stop the window at the desired position while the window is in operation, pull up the switch momentarily to the opposite direction of the window movement.

Auto up/down window (if equipped) (Driver's window)



Pressing or pulling up the power window switch momentarily to the second detent position (3) 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.

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

1. Turn the ignition switch to the ON position.
2. Close the driver's window and continue pulling up the driver's power window switch for at least 1 second after the window is completely closed.



Automatic reversal (if equipped)

If the upward movement of the window is blocked by an object or part of the body, the window will detect the resistance and will stop upward movement. The window will then lower approximately 30 cm (11.8 in.) 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 in.).

And if the power window switch is pulled up continuously again within 5 seconds after the window is lowered by the automatic window reversal feature, the automatic window reversal will not operate.

i Information

The automatic reverse feature for the driver's window is only active when the "auto up" feature is used by fully pulling up the switch. The automatic reverse feature will not operate if the window is raised using the halfway position on the power window switch.

⚠ WARNING

Always check for obstructions before raising any window to avoid injuries or vehicle damage. If an object less than 4 mm (0.16 in.) in diameter is caught between the window glass and the upper window channel, the automatic reverse window may not detect the resistance and will not stop and reverse direction.

Rear seat window (Type A, if equipped)



To open the window, move the window while pressing the handle the direction of the arrow.

Rear seat window (Type B, if equipped)



To open the windows, pull the rear portion of the latch out. Swing the latch forward and out, then lock it into the open position by pushing outward until you hear a click. To close the windows, pull the handle inward. Then push the handle rearward until you hear a click.

NOTICE

In cold and wet climates, rear quarter panel windows may not work properly due to freezing conditions.

HOOD

Opening the hood



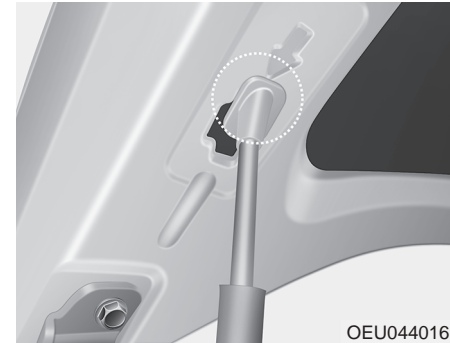
1. Pull the release lever to unlatch the hood. The hood should pop open slightly.

WARNING

Open the hood after turning off the engine on a flat surface, shifting the shift lever to R(Reverse) for manual transmission, and setting the parking brake.



2. Go to the front of the vehicle, raise the hood slightly, pull the secondary latch (1) inside of the hood center and lift the hood (2).



3. Pull out the support rod.
4. Hold the hood opened with the support rod.

WARNING

Hot parts

Grasp the support rod in the area wrapped in plastic. The plastic will help prevent you from being burned by hot metal when the engine is hot.

Closing the hood

1. 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. Return the support rod to its clip to prevent it from rattling.
3. Lower the hood until it is about 30 cm (1 ft.) above the closed position and let it drop. Make sure that it locks into place.

WARNING

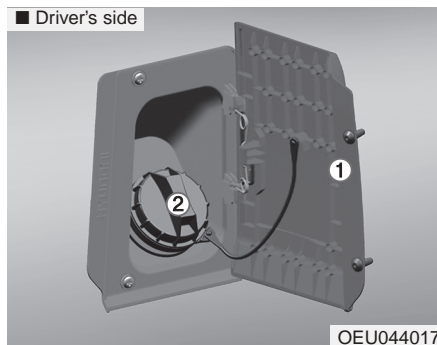
Hood

- **Before closing the hood, ensure that all obstructions are removed from the hood opening. Closing the hood with an obstruction present in the hood opening may result in property damage or severe personal injury.**
- **Do not leave gloves, rags or any other combustible material in the engine compartment. Doing so may cause a heat-induced fire.**

WARNING

- **Always double check to be sure that the hood is firmly latched before driving away. If it is not latched, the hood could fly open while the vehicle is being driven, causing a total loss of visibility, which might result in an accident.**
- **The support rod must be inserted completely into the hole whenever you inspect the engine compartment. This will prevent the hood from falling and possibly injuring you.**
- **Do not move the vehicle with the hood raised. The view will be blocked and the hood could fall or be damaged.**

FUEL FILLER LID



Open the driver's door, before opening the fuel filler lid

1. Stop the engine
2. Fully open the fuel filler lid (1) by pulling it out.
3. Turn the fuel tank cap in the counterclockwise direction to open it.
4. Refuel the vehicle.

Closing the fuel filler lid

1. To install the cap, turn it clockwise until it "clicks". This indicates that the cap is securely tightened.
2. Close the fuel filler lid and push it lightly and make sure that it is securely closed.

i Information

If the fuel-filler lid does not open because ice has formed around it, tap lightly or push on the lid to break the ice and release the lid. Do not pry on the lid. If necessary, spray around the lid with an approved de-icer fluid (do not use radiator anti-freeze) or move the vehicle to a warm place and allow the ice to melt.

⚠ WARNING

Refueling

- 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.
- 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.

WARNING

Refueling dangers

Automotive fuels are flammable materials. When refueling, please note the following guidelines carefully. Failure to follow these guidelines may result in severe personal injury, severe burns or death by fire or explosion.

- Read and follow all warning posted at the gas station facility.
- Before touching the fuel nozzle, you should eliminate potentially dangerous static electricity discharge by touching another metal part of the vehicle, a safe distance away from the fuel filler neck, nozzle, or other gas source.

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- Do not get back into a vehicle once you have begun refueling since you can generate static electricity by touching, rubbing or sliding against any item or fabric (polyester, satin, nylon, etc.) capable of producing static electricity. Static electricity discharge can ignite fuel vapors resulting in rapid burning. 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 diesel source.
- When using an approved portable fuel container, be sure to place the container on the ground prior to refueling.

(Continued)

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Static electricity discharge from the container can ignite fuel vapors causing a fire. Once refueling has begun, contact with the vehicle should be maintained until the filling is complete.

Use only portable plastic fuel containers designed to carry and store diesel.

- Do not use cellular phones while refueling. Electric current and/or electronic interference from cellular phones can potentially ignite fuel vapors causing a fire.
- When refueling, always shut the engine off. Sparks produced by electrical components related to the engine can ignite fuel vapors causing a fire. Once refueling is complete, check to make sure the filler cap and filler door are securely closed, before starting the engine.

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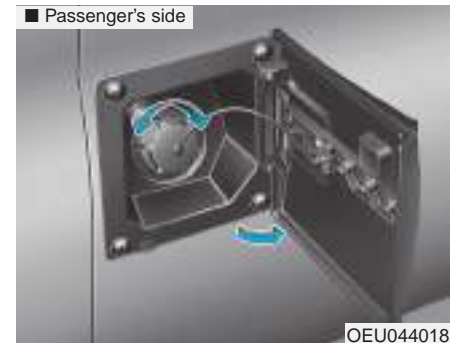
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- **DO NOT** use matches or a lighter and **DO NOT SMOKE** or leave a lit cigarette in your vehicle while at a gas station especially during refueling. Automotive fuel is highly flammable and can, when ignited, result in fire.
- If a fire breaks out during refueling, leave the vicinity of the vehicle, and immediately contact the manager of the gas station and then contact the local fire department.

NOTICE

- **Make sure to refuel your vehicle according to the "Fuel requirements" suggested in section 1.**
- **If the fuel filler cap requires replacement, we recommend that you use parts for replacement from an authorized HYUNDAI dealer. An incorrect fuel filler cap can result in a serious malfunction of the fuel system or emission control system.**
- **Do not spill fuel on the exterior surfaces of the vehicle. Any type of fuel spilled on painted surfaces may damage the paint.**
- **After refueling, make sure the fuel cap is installed securely to prevent fuel spillage in the event of an accident.**

UREA SOLUTION FILLER LID



The urea level warning lamp illuminates, when the urea solution volume falls below 12% or less of the tank. Without adding the urea solution, when the urea solution volume drops to 6%, urea level warning lamp will start blinking. When the urea solution volume drops 4% or under, both urea level warning lamp and urea system warning lamp will simultaneously blink with limited torque.

When the urea volume falls below 1%, both lamps will stay blinking status with limited vehicle speed.

When the urea level warning lamp illuminates, the urea solution must be added.

To open the urea solution filler lid;

1. Open the urea solution filler lid.
2. To remove the cap, turn the urea solution tank cap counterclockwise.
3. Refill as needed.

NOTICE

After completely filling, urea solution in the tank, refill urea solution every 10,000 km.

CAUTION

- If the vehicle is driven with urea solution volume less than 4%, engine output will be limited.

REFILL IN GOOD TIME

The reducing agent must be replenished as soon as the urea level warning lamp illuminates or blinks, otherwise either engine torque or vehicle speed can be limited.

(Continued)

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- Liquid that are not recommended such as diesel, gasoline, and alcohol shall never be used other than the recommended urea solution that satisfy ISO22241 or DIN70070.
- Driver must use with a reducing agent UREA solution for the SCR system working properly. In order to comply with emissions regulations, the vehicle must be operated using UREA solution.

If driver is driving a vehicle without using a UREA solution, driving permit may be revoked, in some countries you may be a criminal offense, such as road traffic offenses.

WARNING

- When opening the urea solution tank cap at high outside temperatures, ammonia vapors may escape. Ammonia vapors have a pungent smell and primarily cause irritation of the:

- Skin
- Mucous membranes
- Eyes

You may experience a burning sensation in your eyes, nose and throat, as well as coughing and watering of the eyes.

Do not inhale ammonia vapors. Do not allow urea solution to come in direct contact with your skin. It is hazardous to your health. Wash any affected areas off with plenty of clean water. If necessary, consult a doctor.

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- When handling with urea solution in closed space, ensure good ventilation. When the bottle of urea solution container is opened, pungent smelling fumes may escape.
- Keep urea solution out of reach of children.
- When urea solution overflows into vehicle surface, wash out vehicle surface with clean water to prohibit corrosion from occurring.



CAUTION

If defective urea solution or liquid that is not recommended is supplied, there may be damage on the parts of the vehicle such as processing device. If defective fuel is used, foreign objects will be accumulated to SCR catalyst and cause catalyst pushed away or breaking.

After adding the incorrect urea solution, please visit the closest service center as early as possible.



WARNING

- In case the vehicle was parked with very low ambient temperature (below 11 degree Celcius) for a long time, the urea solution will be frozen in the urea solution tank. With frozen urea, the tank level may not be detected correctly until the urea solution will be defrosted by activated heater.
- To conform to emission regulation, you must operate the vehicle with urea solution and refill the supply regularly.

NOTICE

Urea solution consumption depends on operation and driving conditions. If the urea level warning lamp illuminates, you should refill before the next scheduled service to replenish the fluid.

STEERING WHEEL

Power steering

Power steering uses energy from the engine to assist you in 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.

Should you notice any change in the effort required to steer during normal vehicle operation, have the power steering checked by an authorized HYUNDAI dealer.



CAUTION

Never hold the steering wheel against a stop (extreme right or left turn) for more than 5 seconds with the engine running. Holding the steering wheel for more than 5 seconds in either position may cause damage to the power steering pump.

NOTICE

If the power steering drive belt breaks or if the power steering pump malfunctions, the steering effort will greatly increase.

NOTICE

If the vehicle is parked for extended periods outside in cold weather (below $-10^{\circ}\text{C}/14^{\circ}\text{F}$), the power steering may require increased effort when the engine is first started. This is caused by increased fluid viscosity due to the cold weather and does not indicate a malfunction.

When this happens, increase the engine RPM by depressing accelerator until the RPM reaches 1,500 rpm then release or let the engine idle for two or three minutes to warm up the fluid.

Tilt & telescopic steering

A tilt steering column allows you to adjust the steering wheel before you drive. You can also raise it to give your legs more room when you exit and enter the vehicle (if equipped).

The steering wheel should be positioned so that it is comfortable for you to drive, while permitting you to see the instrument panel warning lights and gauges.



WARNING

- Never adjust the angle and height of steering wheel while driving. You may lose your steering control and cause severe personal injury or accidents.
- After adjusting, push the steering wheel both up and down to be certain it is locked in position.



To change the steering column angle, pull down the lock release lever (1), adjust the steering column to the desired angle (2) and height (3, if equipped), then pull up the lock-release lever to lock the steering wheel in place. Be sure to adjust the steering column to the desired position before driving.

Horn



To sound the horn, press the horn symbol on your steering wheel. Check the horn regularly to be sure it operates properly.

NOTICE

To sound the horn, press the area indicated by the horn symbol on your steering wheel (see illustration). The horn will operate only when this area is pressed.

⚠ CAUTION

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 (if equipped)

Adjust the rearview mirror to center on the view through the rear window. Make this adjustment before you start driving.

WARNING

Rear visibility

Do not place objects in the rear seat or cargo area which would interfere with your vision out the rear window.

WARNING

Do not adjust the rearview mirror while the vehicle is moving. This could result in loss of control, and an accident which could cause death, serious injury or property damage.

WARNING

Do not modify the inside mirror and do not install a wide mirror. It could result in injury, during an accident or deployment of the air bag.

Day/night rearview mirror (if equipped)



Make this adjustment before you start driving and while the day/night lever is in the day position.

Pull the day/night lever toward you to reduce glare from the headlights of vehicles behind you during night driving.

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

Electric chromic mirror (ECM) (if equipped)

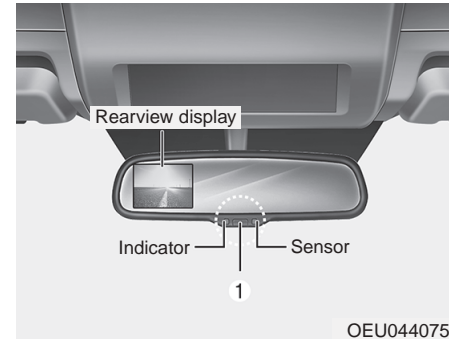
The electric rearview mirror automatically controls the glare from the headlights of the car behind you in nighttime or low light driving conditions. The sensor mounted in the mirror senses the light level around the vehicle, and automatically controls the headlight glare from vehicles behind you.

When the engine is running, the glare is automatically controlled by the sensor mounted in the rearview mirror.

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

CAUTION

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.



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.

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 mirrors can be adjusted remotely with the remote switch. The mirror heads can be folded back to prevent damage during an automatic vehicle wash or when passing in a narrow street.

WARNING

Rearview mirrors

- 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 direct observation to determine the actual distance of following vehicles when changing lanes.

CAUTION

Do not scrape ice off the mirror face; this may damage the surface of the glass. If ice should restrict movement of the mirror, do not force the mirror for adjustment. To remove ice, use a deicer spray, or a sponge or soft cloth with very warm water.

CAUTION

If the mirror is jammed with ice, do not adjust the mirror by force. Use an approved spray de-icer (not radiator antifreeze) to release the frozen mechanism or move the vehicle to a warm place and allow the ice to melt.

WARNING

Do not adjust or fold the outside rearview mirrors while the vehicle is moving. This could result in loss of control, and an accident which could cause death, serious injury or property damage.



Remote control

Electric type (if equipped)

The electric remote control mirror switch allows you to adjust the position of the left and right outside rearview mirrors. To adjust the position of either mirror, move the lever (1) to R (Right) or L (Left) to select the right side mirror or the left side mirror, then press a corresponding point on the mirror adjustment control to position the selected mirror up, down, left or right.

After adjustment, put the lever into neutral position to prevent the inadvertent adjustment.

CAUTION

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

Folding the outside rearview mirror

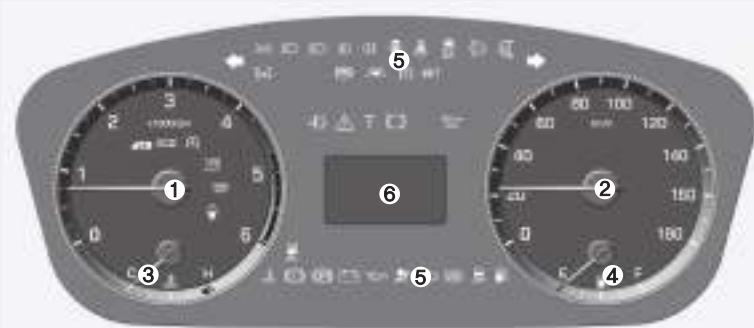


Manual type

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

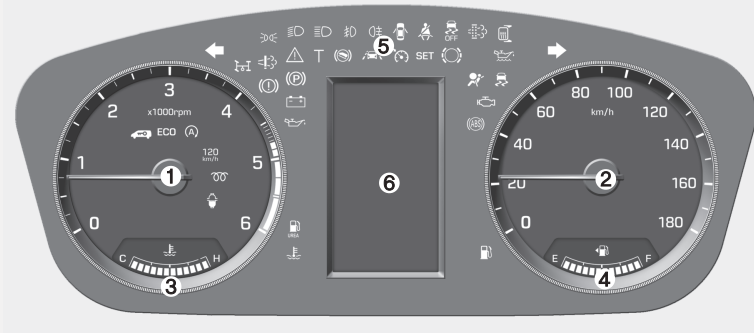
INSTRUMENT CLUSTER

■ Type A



1. Tachometer
2. Speedometer
3. Engine temperature gauge
4. Fuel gauge
5. Warning and indicator lights (if equipped)
6. Multi display (Including trip computer)

■ Type B



* The actual cluster in the vehicle may differ from the illustration.
For more details refer to the "Gauges" in the next pages.

OEU044200/OEU044197

Instrument panel illumination (if equipped)



The brightness of instrument panel illumination can be adjusted by pressing the illumination control switch ("upward" or "downward"), after turning ON the ignition switch and the tail lights.

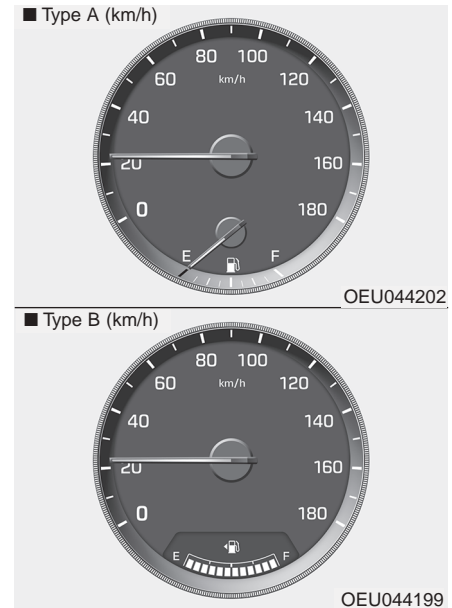
While the switch is being pressed, its illumination level keeps changing.

⚠ WARNING

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

Gauges and indicators

Speedometer



The speedometer indicates the forward speed of the vehicle.

The speedometer is calibrated in kilometers per hour.

WARNING

In a speed-limit zone, such as the Child Protection Zone, obey the relevant speed limit (The speed limit may differ in each region).

Information

The law regulates a speedometer to display the information in a smaller font than the navigation (if equipped) does.

Tachometer

■ Type A



OEU044201

■ Type B



OEU044198

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

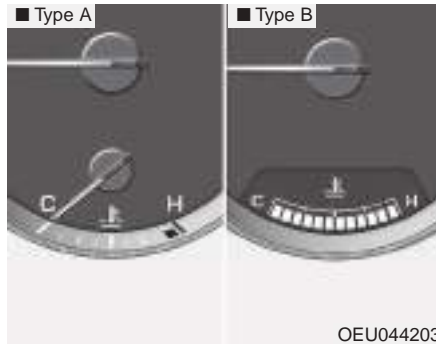
Use the tachometer to select the correct shift points and to prevent lugging and/or over-revving the engine.

The tachometer pointer may move slightly when the ignition switch is in ACC or ON position with the engine OFF. This movement is normal and will not affect the accuracy of the tachometer once the engine is running.

CAUTION

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

Engine temperature gauge



This gauge shows the temperature of the engine coolant when the ignition switch is ON.

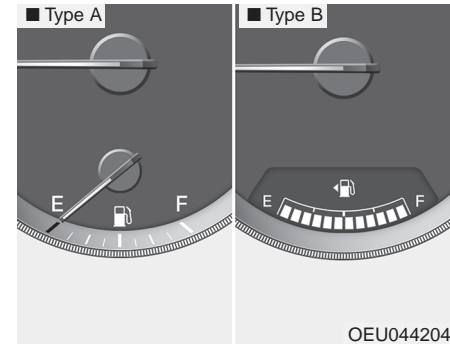
CAUTION

Do not continue driving with an overheated engine. If your vehicle overheats, refer to "If the engine overheats" in section 6. If the gauge pointer moves beyond the normal range area toward the red zone, it indicates overheating that may damage the engine.

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



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

i Information

- The fuel tank capacity is given in section 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.

⚠ WARNING

Fuel gauge

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 O (Empty) level.

⚠ CAUTION

Avoid driving with an extremely low fuel level. Running out of fuel could cause the engine to misfire, damaging the catalytic converter.

⚠ WARNING

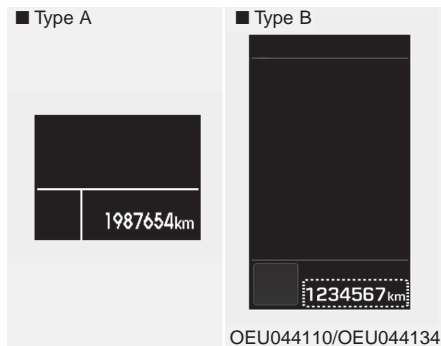
Fuel vapors are dangerous. Before refueling, always stop the engine and never allow sparks or open flames near the filler area. If you need to replace the filler cap, we recommend that you use parts for replacement from an authorized HYUNDAI dealer. If you open the fuel filler cap during high ambient temperatures, a slight “pressure sound” may be heard. This is normal and not a cause for concern.

Whenever you open the fuel filler cap, turn it slowly.

⚠ CAUTION

- Be sure to fill with the specified fuel.(Diesel)
- Be sure to lock the fuel filler cap with the key after filling with the specified fuel.

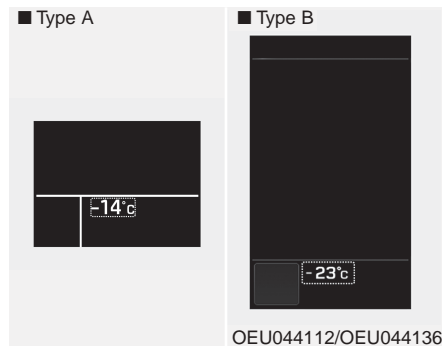
Odometer



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

- Odometer range : 0 ~ 1,999,999 kilometers.

Outside temperature



This gauge indicates the current outside air temperatures by 1°C (1°F).

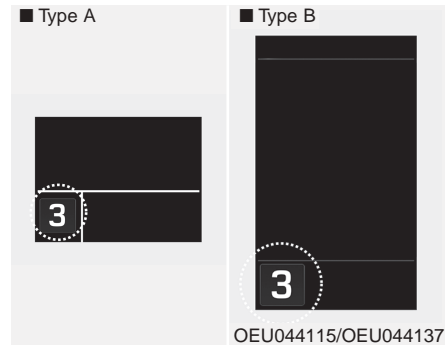
- Temperature range : -40°C ~ 60°C
(-40°F ~ 140°F)

The outside temperature on the display may not change immediately like a general thermometer to prevent the driver from being inattentive.

The temperature unit (from °C to °F or from °F to °C) can be changed by using the “User Settings” mode of the LCD display.

* For more details, refer to “LCD Display” in this chapter.

Gear shift indicator



This indicator informs current gear position and up-shift timing while driving to save fuel.

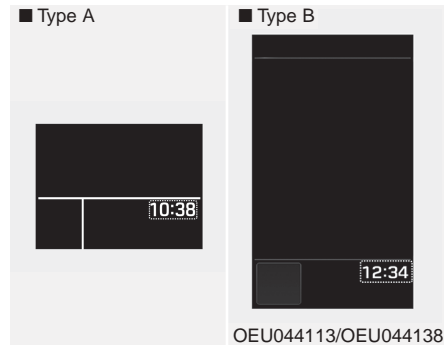
- Shifting down :
1, ↑ , 2, ↑ , 3, ↑ , 4, ↑ , 5, ↑ , 6

For example

- ▲ : Indicates that shifting up to the 3rd gear is desired (currently the shift lever is in the 2nd or 1st gear).

When the system is not working properly, the indicator is not displayed.

Clock indicator










This displays the time. This can be set either in the 12-hour unit or in the 24-hour unit in the user mode of the cluster. This clock can be reset, when it is incorrect.

- When the DTG is applied, the clock is operated by the DTG. When "-- : --" illuminates, there is a telecommunication error.
- When the DTG is not applied, the clock is operated by the cluster system.
 - * DTG : Digital TachoGraph

MULTI-DISPLAY (IF EQUIPPED)

Main display

Modes	Symbol	Explanation
Trip Computer	 or 	This mode displays driving information like the tripmeter, fuel economy, and so on. For more details, refer to "Trip Computer" in this chapter.
Drive Info. (if equipped)		This mode displays the state of Cruise Control System (CC) or the Lane Departure Warning System (LDWS). For more details, refer to the chapter 5.
AVN (if equipped)		This mode displays the state of the A/V (Radio, CD USB, AUX, etc.) system.
Turn By Turn (TBT) (if equipped)		This mode displays the state of the navigation.
Information		<ul style="list-style-type: none"> • This mode informs of service interval and warning messages related the lamp disconnection. • It indicates system failures, such as fuel consumption, engine-idling hour and major ECUs.
User Settings		On this mode, you can change settings of the doors, lamps, and so on.

* For controlling the LCD modes, refer to "LCD Display Control" in this chapter.

Function description

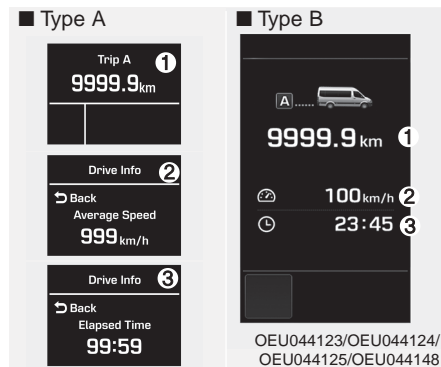
Main menu		Sub menu	
		Type A	Type B
Trip computer		Trip A Trip B Range Avg. Fuel Eco. Inst. Fuel Eco. UREA gauge	Range / Ave. Fuel Eco. / Inst. Fuel Eco. UREA gauge Trip A / Average speed / Elapsed Time Trip B / Average speed / Elapsed Time AUTO STOP
Drive Info		-	LDWS (Lane Departure Warning System) CC (Cruise control)
AVN		-	AVN
TBT		-	TBT NAVI
Information	Service	Warning message Service notifications	Warning message Service notifications
	Drive Info.	Total Fuel Consumption (T.F.C) Total Idle RPM Time (T.I.T) Average Speed Elapsed Time AUTO STOP	Total Fuel Consumption (T.F.C) Total Idle RPM Time (T.I.T)
	Diagnostics	ABS/VDC CM SJB CLUSTER LDWS ACU	ABS/VDC CM SJB CLUSTER LDWS ACU

Convenient features of your vehicle

Main menu		Sub menu	
		Type A	Type B
Set	Door	Automatic door lock (Enable on speed)	
		Automatic door unlock (On Key Out (power off), Drive door unlock)	
	Light	Head Lamp delay	
		Welcome Light	
		Auto Triple Turn	
		External Lamp Check*	
	Sound	Sound Settings (Level1~3, OFF)	
	Cluster	Shift Indicator (ON/OFF)	
		Unit Settings (Time-12hour or 24 hour, Temperature unit-°C or °F)	
		AFC Settings (Auto reset, Manual reset)	
		Language Settings (English, Deutsch, etc.)	
		Current Time (00:00)	
		Alarm (Alarm time, Idle RPM, Break Time-ON/OFF)	
	Equipment Cycle (Maintenance)	Engine Oil (OFF, ON, Distance setting)	
		Fuel Filter(OFF, ON, Distance setting)	
		User Menu (OFF, ON, Distance setting)	

* It monitors all external lights, except the back-up lights.

Trip computer



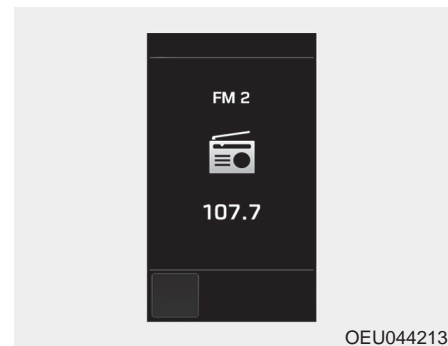
This displays the drive information like as the driving distance, average fuel economy, etc. For detail, refer to the “Trip computer” in the chapter 3.

Drive info. mode (If equipped)



This mode displays the state of the CC or LDWS. For more details, refer to the chapter 5.

AV information (If equipped)



This mode displays the state of the AV (Radio, CD, USB, AUX etc.).

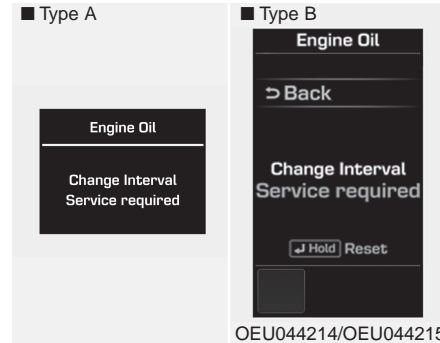
Turn by turn navigation (if equipped)



This mode displays the information of the navigation.

Information Mode

Service required



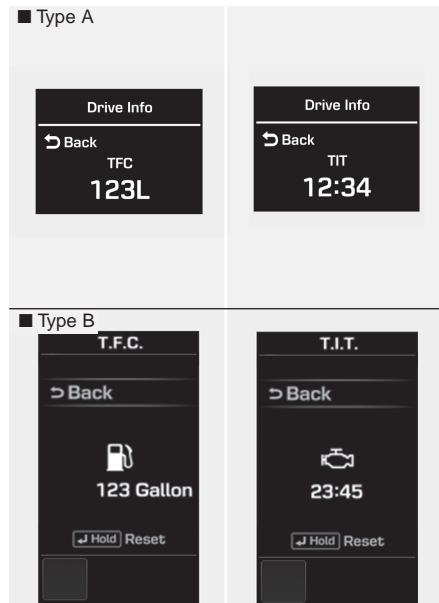
If you do not have your vehicle serviced according to the already inputted service interval, "Service required" message is displayed for several seconds each time you set the ignition switch to the ON position.

NOTICE

If any of the following conditions occurs, the mileage may be incorrect.

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

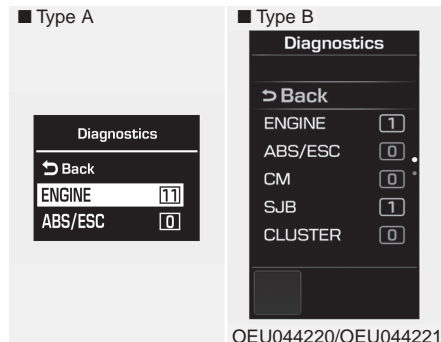
Drive Info



OEU044216/OEU044217/OEU044218/OEU044219

It indicates the accumulated fuel consumption amounts as well as the accumulated engine-idling hours.

Diagnostics

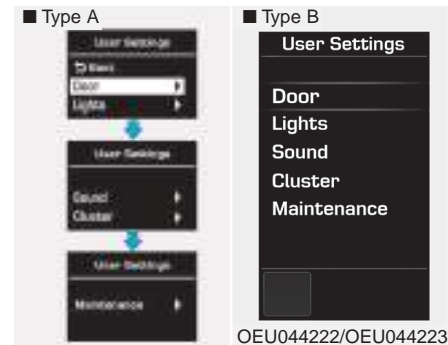


OEU044220/OEU044221

It monitors and diagnoses failures of each vehicle unit, displaying the information, such as the number of failures the failure code.

User Settings Mode

Description



OEU044222/OEU044223

On this mode, you can change setting of the doors, lamps, and so on.

Door

Auto Door Lock (if equipped)

- Off:
The auto door lock operation will be deactivated.
- Enable on speed:
All doors will be automatically locked when the vehicle speed exceeds 15km/h (9.3mph).

Auto Door Unlock (if equipped)

- Key Out or Power Off:
All doors will be automatically unlocked when the ignition key is removed from ignition switch to the OFF position.
- Driver Door Unlock:
All doors will be automatically unlocked if the driver's door is unlocked.

Light

Head Lamp Delay (if equipped)

If this item is checked, the headlamp delay will be activated.

Welcome Light (if equipped)

When it is selected, the headlamp welcome function automatically activates.

Auto Triple Turn (if equipped)

When it is selected, the auto triple turn function activates.

External Lamp Check (if equipped)

When it is selected, the external lamps automatically activate.

* It monitors all external lamps, except the back-up lights.

Sound

The sound volume can be adjusted from level 0 (OFF) to 3.

Cluster

Shift gear

It is turned ON or OFF.

Unit Settings

Time unit

The time unit can be converted from 12 hours to 24 hours, and vice versa.

Temperature unit

The temperature unit can be converted from °C to °F, and vice versa.

AFC setting

It can be automatically or manually reset to the default.

* AFC : Average Fuel Consumption

Language setting

A preferred language can be chosen on the LCD display.

Current time

The time can be adjusted.

Alarm

The alarm, idle-rpm time, break time can be set in.

Equipment cycle(Maintenance)

Engine oil, fuel filter

The maintenance alarm can be turned ON or OFF. Also, the driving distance for an oil/filter maintenance alarm can be set in.

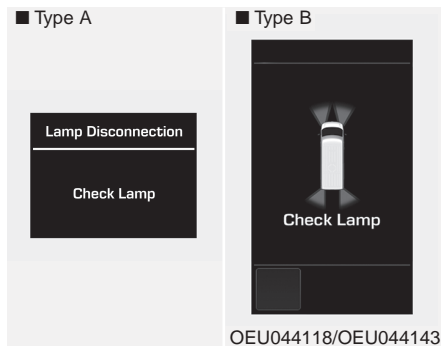
User Menu

The maintenance alarm message displays on the LCD display, as arbitrarily set in.

Warning Messages

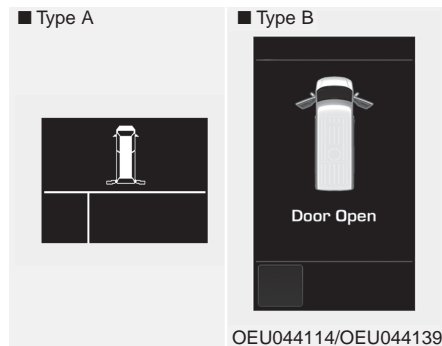
In below cases, the warning message displays for 10 seconds. Some messages will be saved in the information group after few seconds displaying for future reference.

Lamp disconnection (CHECK LAMP)



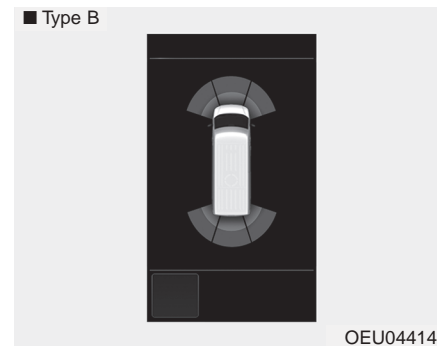
This indicator displays which lamp is disconnected.

Doors open



This indicator displays which doors are opened.

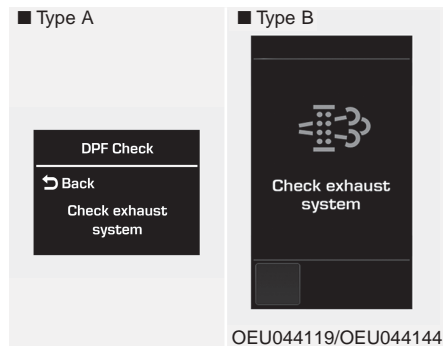
Parking Assist System (PAS) (if equipped)



When the engine is turned ON, and when the PAS sensor detects an obstacle, while driving either forwards or backwards, the PAS informs the driver of a location and a distance of/with the obstacle.

For further information, refer to the Parking Assist System in the chapter 3.

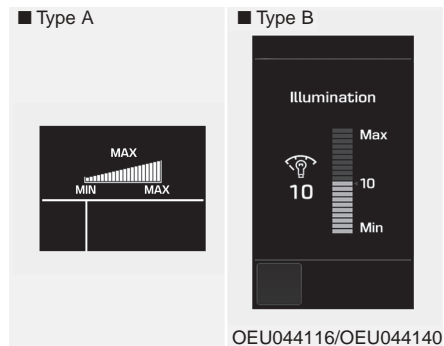
DPF Check (if equipped)



The warning message is displayed, as above, when there is a DPF problem with your diesel vehicle. In this case, have the DPF system checked by an authorized HYUNDAI dealer.

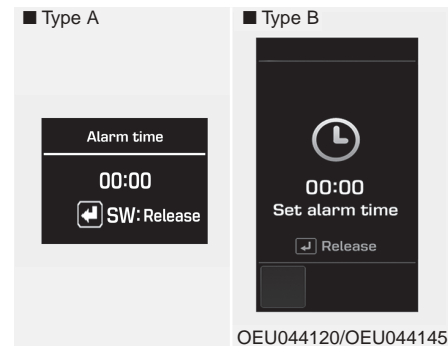
* DPF: Diesel Particulate Filter

Illumination (if equipped)



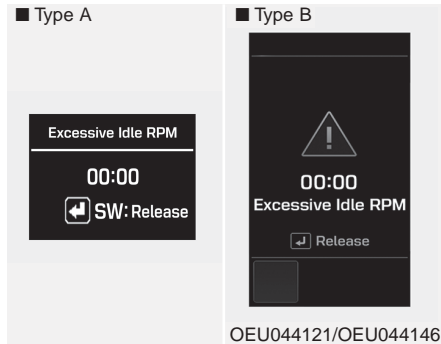
The illumination intensity of the instrument panel is shown when adjusting it with the illumination control switch.

Alarm time



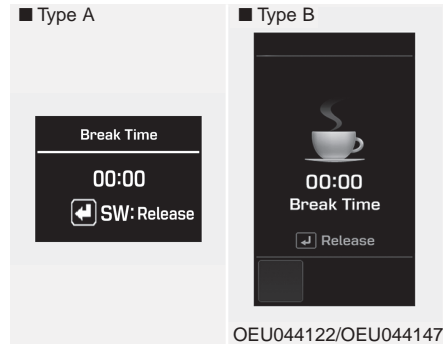
It displays the alarm time, as set in the user-setting mode.

Excessive Idle RPM



It displays the idle-rpm hour, as set in the user-setting mode.

Brake time



It displays the breaking hour, as set in the user-setting mode.

TRIP COMPUTER (IF EQUIPPED)

Overview

Description



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

1. (☰) Mode button for changing modes
2. (▼) Move button for changing items
3. (↵) Select / Reset button

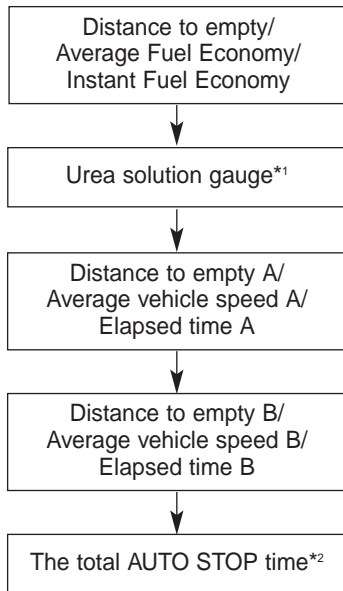
NOTICE

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

Trip Modes

Trip mode is changed as below whenever pushing the button shortly.

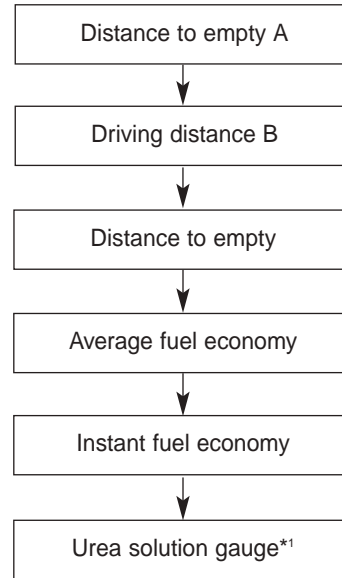
• **Trip Mode (High-end Type)**



*1 : When applying the SCR system

*2 : When applying the ISG system

• **Trip mode (Standard Type)**



* You may check the average driving speed/Elapsed time/total AUTO STOP hours*2 in the information group.

*1: When applying the SCR system

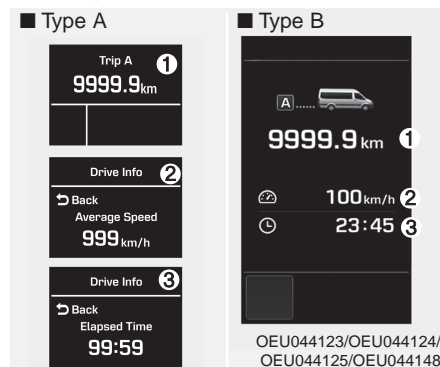
*2 : When applying the ISG system

In the trip computer mode on the LCD display, the trip mode can be adjusted by pressing the (▼) button. By pressing the button (⏏), you can select the desired trip mode.

* For controlling the LCD modes, refer to "LCD Display Control" in this chapter.

Driving distance / Average vehicle speed / Elapsed time

Driving distance (1)



This displays the total driving distance from the default setting (0.0)

- Pressing the "Select" button for 1 second or over, when the driving distance is displayed, resets the driving distance. This also resets the driving hours and the average speed (Type B).
- Distance range: 0 .0 ~ 9999.9 km

Average Vehicle Speed (2)

- The average vehicle speed is calculated by the total driving distance and driving time since the last average vehicle speed reset.
 - Speed range: 0 ~ 999 km/h
- To reset the average vehicle speed, press the SET button for more than 1 second when the average vehicle speed is displayed.

NOTICE

Even if the vehicle is not in motion, the average vehicle speed keeps going while the engine is running.

Elapsed Time (3)

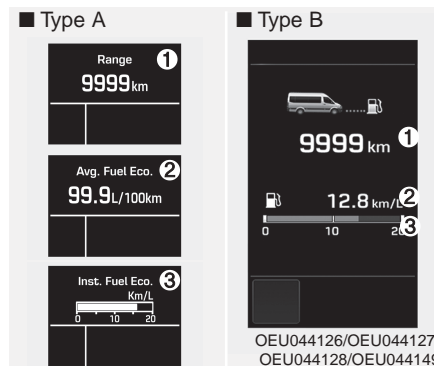
- The elapsed time is the total driving time since the last elapsed time reset.
 - Time range (hh:mm): 00:00 ~ 99:59
- To reset the elapsed time, press the SET button for more than 1 second when the elapsed time is displayed.

NOTICE

Even if the vehicle is not in motion, the elapsed time keeps going while the engine is running.

Fuel Economy

Distance To Empty (1)



- The distance to empty is the estimated distance the vehicle can be driven with the remaining fuel.
 - Distance range: 50 ~ 9999 km or 30 ~ 9999 mi.
- If the estimated distance is below 50 km (30 mi.), the trip computer will display “---” as distance to empty.

NOTICE

- 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 fuel economy and distance to empty may vary significantly based on driving conditions, driving habits, and condition of the vehicle.

Average Fuel Economy (2)

- The average fuel economy is calculated by the total driving distance and fuel consumption since the last average fuel economy reset.
 - Fuel economy range: 0.0 ~ 99.9 km/L (L/100km)
- The average fuel economy can be reset both manually and automatically.

Manual reset

To clear the average fuel economy manually, press the SET button for more than 1 second when the average fuel economy is displayed.

Automatic reset

The average fuel economy will be cleared to zero (---) when the vehicle speed exceeds 1 km/h after refueling more than 6 liters (1.6 gallons).

NOTICE

The average fuel economy is not displayed for more accurate calculation if the vehicle does not drive more than 300 meters since the ignition switch is turned to ON.

Information

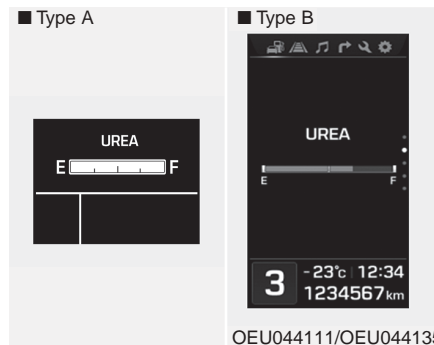
When the average fuel efficiency is set to be automatically reset in the user-setting mode, the average fuel efficiency and the fuel gauge may automatically reset to the default, while driving on a slope or going down/up on a flat road from a slope. Such situations make the fuels in a tank abruptly fluctuate and cause the system to misrecognize it as the refueling. Thus, it is automatically reset to the default. This is not a system failure.

When the automatic reset function is cancelled in the user-setting mode, the average fuel efficiency will not be automatically reset, any longer.

Instant fuel economy (3)

- 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).
 - Fuel economy range:
0 ~ 20 km/L (L/100 km)

Urea Solution Gauge (if equipped)



The urea solution gauge indicates the approximate amount of urea solution remaining in the urea tank.

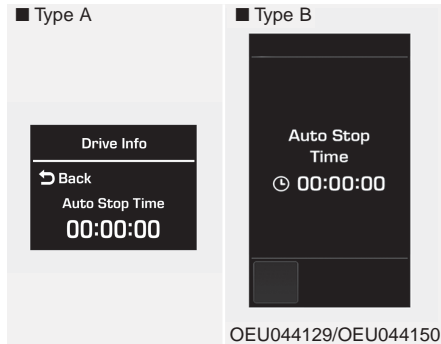
CAUTION

- If the vehicle is driven with urea solution volume less than 4%, engine output will be limited.
- Liquid that are not recommended such as diesel, gasoline, and alcohol shall never be used other than the recommended urea solution that satisfy ISO22241 or DIN70070.

CAUTION

If defective urea solution or liquid that is not recommended is supplied, there may be damage on the parts of the vehicle such as processing device. If defective fuel is used, foreign objects will be accumulated to SCR catalyst and cause catalyst pushed away or breaking.

Total AUTO STOP Hour



When the AUTO STOP operates, the total AUTO STOP hour displays on the LCD display.

Stop Hour Range: 00:00~99:59:59

Pressing the “Select” button for 1 second or over resets the total AUTO STOP hour.

For further information, refer to the ISG (Idle stop and go) system in the chapter 5.

Driving Information



The driving information may display on the cluster for a few seconds after turning OFF the engine.

When the fuel is insufficient, "Low Fuel" message will display. In this case, immediately refuel the tank.

WARNING AND INDICATOR LIGHTS

Seat Belt Warning Light



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

For more details, refer to the “Seat Belts” in chapter 2.

Engine Overheat Warning Light



This indicates a coolant temperature. When a temperature is above the normal range, the engine overheat warning light illuminates.

When there is a telecommunication error, the engine overheat warning light blinks.

WARNING

The illumination of the engine overheat warning light indicates that the engine is over-heated.

Refer to the chapter 6, "What to Do in an Emergency."

Air bag Warning Light (if equipped)



This warning light illuminates:

- Once you set the ignition switch 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.

Low Fuel Level Warning Light



This warning light illuminates:

When the fuel tank is nearly empty.

This warning light blinks:

When the fuel sensor is disconnected.

If the fuel tank is nearly empty:

Add fuel as soon as possible.

NOTICE - Low Fuel Level

Driving with the Low Fuel Level warning light on or with the fuel level below "0 or E" can cause the engine to misfire and damage the catalytic converter (if equipped).

Immobilizer Indicator Light (if equipped)



This indicator light illuminates:

When the vehicle detects the immobilizer in your key properly while the ignition switch is ON.

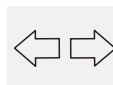
- At this time, you can start the engine.
- The indicator light goes off after starting the engine.

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.

Turn Signal Indicator Light



This indicator light blinks:

- When you turn the turn signal light on.

If any of the following occurs, there may be a malfunction with the turn signal system. In this case, we recommend that you have the vehicle inspected by an authorized HYUNDAI dealer.

- The indicator light does not blink but illuminates.
- The indicator light blinks more rapidly.
- The indicator light does not illuminate at all.

Low Beam Indicator Light (if equipped)



This indicator light illuminates:

- When the headlights are on.

High Beam Indicator Light



This indicator light illuminates:

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

⚠ WARNING

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

Light ON indicator light



This indicator illuminates when the tail lights or headlights are on or when the lights switch is turned to "AUTO" position.

Front Fog Indicator Light (if equipped)



This indicator light illuminates:

- When the front fog lights are on.

Rear Fog Indicator Light (if equipped)



This indicator light illuminates:

- When the rear fog lights are on.

Parking brake warning light



The parking brake warning light should come on when the parking brake is applied and the ignition switch is turned to "ON" or "START". After the engine is started, the light should go out when the parking brake is released.

If the parking brake is not applied, the warning light should come on and warning buzzer sounds when the ignition switch is turned to "ON" or "START" with specified speed, then go out when the engine starts. If the light comes on at any other time, you should slow the vehicle and bring it to a complete stop in a safe location off the roadway.

If you drive while parking brake is applied, the parking brake warning light comes on and warning buzzer sounds simultaneously.

Low brake fluid level warning light



WARNING

If you suspect brake trouble, we recommend that the system be checked by an authorized HYUNDAI dealer. Driving your vehicle with a problem in either the brake electrical system or brake hydraulic system is dangerous, and could result in a serious injury or death.

Warning light operation

The brake fluid level warning light indicates that the brake fluid level in the brake master cylinder is low and hydraulic brake fluid conforming to SAE J1703 specifications should be added. After adding fluid, if no other trouble is found, we recommend that the system be inspected by an authorized HYUNDAI dealer. If further trouble is experienced, we recommend that you contact an authorized HYUNDAI dealer.

Anti-lock Brake System (ABS) Warning Light



This warning light illuminates:

- Once you set the ignition switch 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 EBD 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.

Information - Electronic Brake force Distribution (EBD) System Warning Light

When the ABS Warning Light is on or both ABS and EBD are on, the speedometer, odometer, or tripmeter may not work.

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

Vehicle Dynamic Control (VDC) Indicator Light



This indicator light illuminates:

- Once you set the ignition switch to the ON position.
 - It illuminates for approximately 3 seconds and then goes off.
- When there is a malfunction with the VDC system.

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

This indicator light blinks:

While the VDC is operating.

For more details, refer to “Vehicle Dynamic Control (VDC)” in chapter 5.

Vehicle Dynamic Control (VDC) OFF Indicator Light



This indicator light illuminates:

Once you set the ignition switch to the ON position.

- It illuminates for approximately 3 seconds and then goes off.


For more details, refer to “Vehicle Dynamic Control (VDC)” in chapter 5.

ECO Mode Indicator Light (if equipped)



This indicator light illuminates:

- When you select “ECO” mode as drive mode.

 **WARNING**

Do not watch the ECO indicator light while driving. This will distract you and may cause an accident that results in severe personal injury.

Cruise Indicator Light (if equipped)



This indicator light illuminates:

- When the cruise control system is enabled.

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

Cruise SET Indicator Light (if equipped)



This indicator light illuminates:

- When the cruise control speed is set.

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

Auto stop indicator (if equipped)



This indicator will illuminate when the engine enters the Idle Stop mode of the ISG (Idle Stop and Go) system.

When the automatic starting occurs, the auto stop indicator on the cluster will blink for few seconds.

For more details, refer to the ISG (Idle Stop and Go) system in the chapter 5.

***i* Information**

When the engine automatically starts by the ISG system, some warning lights (ABS/EBD/VDC/VDC OFF) may turn on for a few seconds.

This happens because of the low battery voltage. It does not mean the system is malfunctioning.

Engine Oil Pressure Warning Light



This warning light illuminates:

- Once you set the ignition switch to the ON position.
 - It remains on until the engine is started.
- 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.

Malfunction indicator lamp (MIL) (check engine light)



This indicator light is part of the Engine Control System which monitors various emission control system components. If this light illuminates while driving, it indicates that a potential problem has been detected somewhere in the emission control system.

This light will also illuminate when the ignition switch is turned to the ON position, and will go out in a few seconds after the engine is started. If it illuminates while driving, or does not illuminate when the ignition key is turned to the ON position, we recommend that the system be checked by an authorized HYUNDAI dealer.

Generally, your vehicle will continue to be drivable, but we recommend that the system be checked by an authorized HYUNDAI dealer.

NOTICE

Prolonged driving with the Emission Control System Malfunction Indicator Light illuminated may cause damage to the emission control systems which could effect drivability and/or fuel economy.

NOTICE

Diesel engine

If the Emission Control System Malfunction Indicator Light blinks, some error related to the injection quantity adjustment occurs which could result in loss of engine power, combustion noise and poor emission. We recommend that the system be inspected by an authorized HYUNDAI dealer.

Charging System Warning Light



This warning light illuminates:

- Once you set the ignition switch to the ON position.
 - It remains on until the engine is started.
- 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.

Lane departure warning system (LDWS) (if equipped)



The warning light illuminates, if LDWS cannot identify any lane departure due to a system malfunction, snow, or dirt.

- * In case of a communications failure, the warning light flashes in the amber color.

⚠ WARNING

- There will be a warning sound if you change the lane without turning ON the turn signal switch.
- Change the lane after turning ON the turn signal switch, when required.

Tachograph (if equipped)



The warning light illuminates, if an error in a tachograph is detected. Have your vehicle inspected by an HYUNDAI authorized dealer.

Master Warning Light



The Master Warning Light illuminates, when one of the following system malfunctions occurs. More details about a malfunction will be displayed on the LCD display.

The Master Warning Light illuminates, when there is a malfunction with one of the followings:

- Lamp disconnection
- DPF check-up
- Service alarm

Situations, where the Master Warning Light illuminates, may be various. When a warning situation is settled, the Master Warning Light turns OFF.

In addition, for a malfunction with the major units, such as CM and SJB, the Master Warning Light also illuminates.

- * DPF : Diesel Particular Filter
- * CM : Central Module
- * SJB : Smart Junction Box

Door ajar warning light



This warning light illuminates when a door and the electrical step (for bus) are not closed securely with the ignition in any position.

WARNING

- Before driving, make sure that all doors and the electrical step are securely closed, and that all warning lights are turned OFF.
- While any warning light illuminates, turning OFF the engine may discharge the battery and fail the engine starting.
- Before leaving the vehicle, securely close all doors and lock them.

Fuel filter warning light



This warning light illuminates for 3 seconds after the ignition switch is set to the ON position and then it will go out. If it lights up while the engine is running, it indicates that water has accumulated inside the fuel filter. If this happens, remove the water from the fuel filter. For more information, refer to "Fuel filter" in section 7.

CAUTION

When the fuel filter warning light is illuminated, engine power (vehicle speed & idle speed) may decrease. If you keep driving with the warning light on, you can damage your vehicle's engine parts and injection system. If this occurs, we recommend that the system be checked by an authorized HYUNDAI dealer.

Diesel preheat indicator light



The indicator light illuminates amber when the ignition switch is placed at the "ON" position. The engine can be started after the preheat indicator light goes off. The illuminating time varies with the water temperature, air temperature and battery condition.

NOTICE


If the engine were not started within 10 seconds after the preheating is completed, turn the ignition key once more to the "LOCK" position, and then to the "ON" position, in order to preheat again.


DPF (Diesel Particulate Filter) Warning Indicator



The Diesel Particulate Filter (DPF) system removes the soot emitted from the vehicle.

Unlike a disposable air filter, the DPF system automatically burns (oxidizes) and removes the accumulated soot while driving.

However, if the vehicle continues to be driven in short distance repeatedly or at low speed for a long time, the accumulated soot may not be automatically removed because of low exhaust gas temperature. In this particular case, if the amount of soot is out of detection limit, the DPF warning indicator () will illuminate. In order to start the DPF regeneration and to stop the DPF warning lamp illuminating, drive the vehicle in a safety driving circumstance with more than 60km/h (37 mph) vehicle speed or with more than second gear engaged and 1500 ~ 2000 engine rpm for a certain time (for about 25 minutes).

If the DPF warning indicator () continues to blink or "check emission system" message comes on in the cluster in spite of the above procedure, we recommend that the system be checked by an authorized HYUNDAI dealer.

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

Urea Level Warning lamp



The urea level warning lamp illuminates, when the urea solution volume falls below 12% or less of the tank. Without adding the urea solution, when the urea solution volume drops to 6%, urea level warning lamp will start blinking. When the urea solution volume drops 4% or under, both urea level warning lamp and urea system warning lamp will simultaneously blink with limited torque.

When the urea volume falls below 1%, both lamps will stay blinking status with limited vehicle speed.

When the urea level warning lamp illuminates, the urea solution must be added.

The urea level warning lamp will still illuminate with the remaining driving distance after replenishment, and then the lamp will go out after several minutes driving or after several minutes ignition on status.

Urea system warning lamp



When the vehicle has critical problems such as incorrect urea replenishment, urea consumption deviation, urea dosing interruption or EGR(exhaust gas recirculation) system malfunction, the urea system warning lamp will start blink with limited engine torque or vehicle speed.

Engine oil level warning light (if equipped)



The engine oil level warning light illuminates when the engine oil level should be checked.

If the warning light comes on, check the engine oil level as soon as possible and add engine oil as required.

Slowly pour the recommended oil little by little into a funnel.

Use only the specified engine oil. (Refer to "Recommended lubricants and capacities" in section 8.)

Do not overfill the engine oil to ensure the oil level is not above F mark on the dipstick.

***i* Information**

- If you travel approximately 50~100 km after the engine warms up, after adding the engine oil, the warning light will go off.
- Cycle the ignition from OFF to ON 3 times within 10 seconds, the warning light will go off immediately. However, when you turn off the warning light without adding the engine oil, the light will come on again after traveling approximately 50~100 km after the engine warms up.

NOTICE

If the light comes on continuously after adding the engine oil and traveling approximately 50~100 km after the engine warms up, we recommend that the system be checked by an authorized HYUNDAI dealer.

Even if this light doesn't come on after the engine has started, the engine oil should be checked and supplied periodically.

**PTO (Power take off)
indicator light
(If equipped)**



The PTO indicator light will be illuminated when the PTO switch is on.

⚠ CAUTION

Be sure not to operate the switch while driving as this may cause damage to each power train parts.

**Lining wear warning
light
(if equipped)**



If the wheel brake are(is) worn, the light will come on. If the sensor of wheel brake is defective, the light will blink.

⚠ CAUTION

We recommend that the system be inspected by an authorized HYUNDAI dealer. Replace right and left pads with new ones simultaneously when replacing brake pads.

**Hill-start assist system
indicator (if equipped)**



The main intend is to prevent the vehicle from rolling backwards while driving off uphill on an inclined surface. The braking pressure is reduced as soon as the system detects the driver's intention to drive off.

**Mirror heater indicator
light (If equipped)**



The mirror heater indicator will be illuminated when mirror heater switch is turned "ON".

Warning sound

Overspeed warning (if equipped)

**120
km/h**

Overspeed warning light

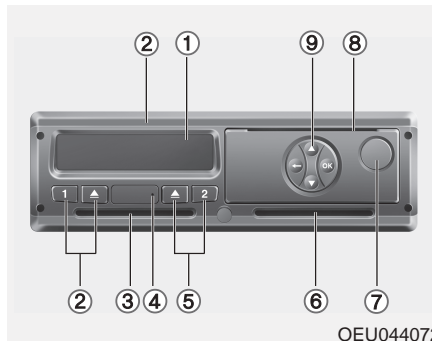
If you drive with the speed of 120km/h or more, the overspeed warning light will blink. This is to prevent from driving your vehicle with overspeed.

Overspeed warning chime

If you drive with the speed of 120km/h or more, the overspeed warning chime will sound for about 5 seconds. This is to prevent you from driving your vehicle with overspeed.

DIGITAL TACHOGRAPH (IF EQUIPPED)

■ Type A



- (1) Display
- (2) Driver 1 keypad
- (3) Card slot 1
- (4) Download interface
- (5) Driver 2 keypad
- (6) Card slot 2
- (7) Unlock button printer drawer
- (8) Cutting edge
- (9) Menu buttons

(a) Symbol " " for ADR variant*

(ADR=European Agreement concerning the international carriage of dangerous goods by road)



The DTCO 1381 can be remotely controlled by the corresponding accessories.

Description

Display (1)

Depending on the vehicle's operational condition, different displays will appear or data can be displayed.

Driver 1 keypad (2)

- () activity button for driver 1
- () ejection button for card slot 1



Card slot 1 (3)

Driver 1, who will drive the vehicle at this moment in time, inserts his driver card into slot 1.

Download interface (4)

The download interface is located under the cover. The access rights of this interface are regulated according to the inserted tachograp card.

Driver 2 keypad (5)

- () activity button for driver 2
- () ejection button for card slot 2

Card slot 2 (6)

Driver 2, who is not driving the vehicle at this moment in time, inserts his driver card into slot 2 (crew operation).

Unlock button (7)





Use this button to unlock the printer drawer, for example when inserting a roll of paper.

Cutting edge (8)

You can use the cutting edge to tear off a printout generated by integrated printer.

Menu buttons (9)

Use the following buttons to enter, display, or print out data.

- () Use the paging function to select the desired function or selection. (This is possible by pressing and holding down the auto-repeat function key.)
- () Confirm or acknowledge desired function/selection.
- () Press and hold, repeatedly until the last entry field.
- () Back to the last entry field, abort the entry of a country, or leave the menu one step at a time.

ADR variant*(a)

- Some functions, such as insertion or removal of the tachograph cards, printing or display of data are possible only while the ignition is switched on.
- The download interface cap on the DTCO 1381 must be closed during loading and unloading of hazardous materials.

* For more detail information, refer to operating instructions (book or CD) from the manufacturing company.

■ Type B

Name and function (If equipped)



1. MENU

- This button is used to move from initial screen to Menus.

2. PRINT

- This button is used to move from initial screen to Choose Printing Date.

3. VDC

- This button is used to escape the moving and move to the previous menu.
- This button is used to escape USB Download & Printing and move to the previous menu.

4. SEL

Select the menu and move to the next menu.

5. Direction key

- This key is used for moving between Menus.
- It is also used to enter and modify the info in the setting menu.

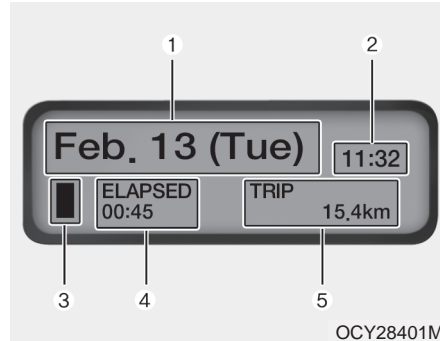
6. USB

Travel Info can be saved in a USB device using this key .

CAUTION

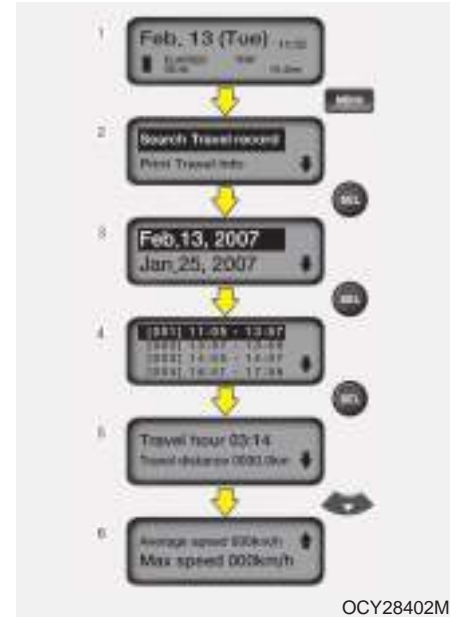
- Do not use the USB devices not qualified certificate because of compatibility.
- The product records information while the vehicle is running. No key or menu will be working.

LCD Display



1. It displays the current date information.
2. It displays the current time.
3. It displays the current driving condition.
 - ■ IGN ON for vehicle stop
 - ► Vehicle Driving
 - ▬ Vehicle IDLE
4. It displays the time from Key On to now.
5. It displays the distance from Key On to the current location.

Search travel information



1. Initial screen

It displays Date, Time, Driving condition, Travel hour, Travel distance.

2. Search travel info

3. Select travel data you want to inquire:

Nothing displays when there is no travel info recorded.

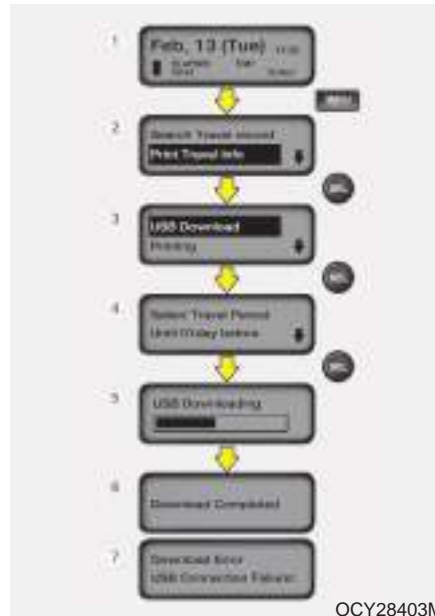
4. Select travel time you want to inquire:

Displays the time elapsed from Key On to Key Off.

5. Displays travel time info you inquired:

The travel info calculated above (4) will be displayed.

USB Download



1. Initial screen

It displays Date, Time, Driving condition, Travel hour, Travel distance.

2. Select print travel info mode

3. Select USB download mode

4. Set and select travel period:

Select (Total, Day 1 ~ 99) by using the direction (UP, down) key.

5. Check USB and download progression is displayed.

- Click VDC in the downloading to escape and it goes to (3).

- If USB is not inserted, it goes to page (7).

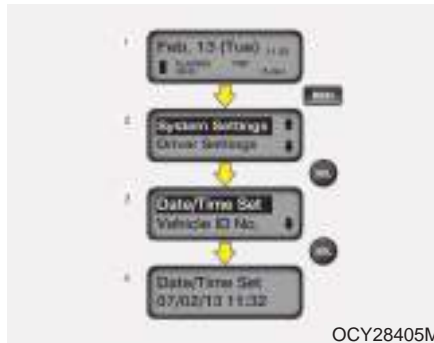
- Don't remove USB while download is in process.

6. Display the completion of data storage to USB device.

- If download is completed, remove the USB device.

7. Error message is displayed when no USB is inserted.

Date/Time setting



1. Initial screen

It displays Date, Time, Driving condition, Travel hour, Travel distance.

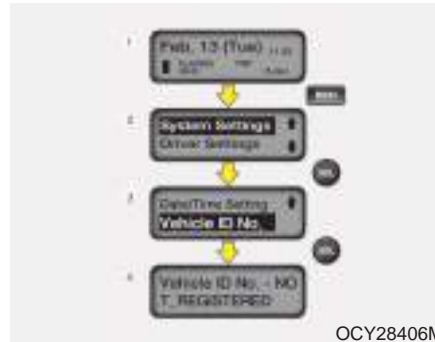
2. Select system setting mode

3. Select date/time setting mode

4. Inquire and modify date/time set:

- Use direction key to modify and save it with SEL key.
- Click VDC to escape the saving and it goes to (3).

Inquiry of vehicle identification number



1. Initial screen

It displays Date, Time, Driving condition, Travel hour, Travel distance.

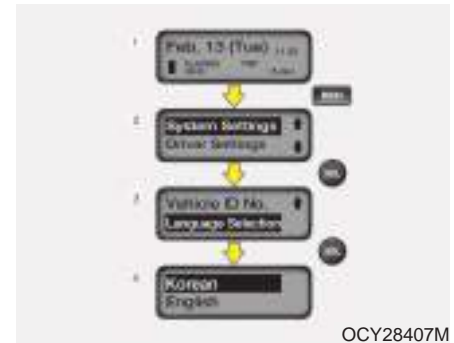
2. Select system setting mode

3. Select vehicle ID No. mode

4. Inquiring vehicle ID No. mode:

Modification is not available.

Setting brightness



1. Initial screen

It displays Date, Time, Driving condition, Travel hour, Travel distance.

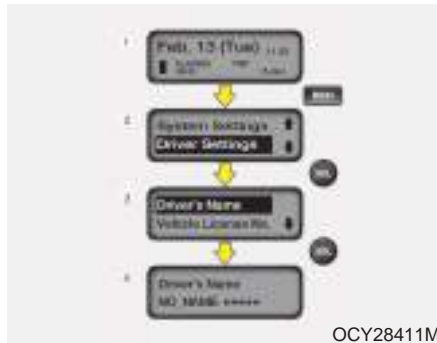
2. Select system setting mode

3. Select language selection mode

4. Inquire and set language selection

- Use direction key to select and save it with SEL key.
- Click VDC to escape the saving and it goes to (3).

Driver's name



1. Initial screen

It displays Date, Time, Driving condition, Travel hour, Travel distance.

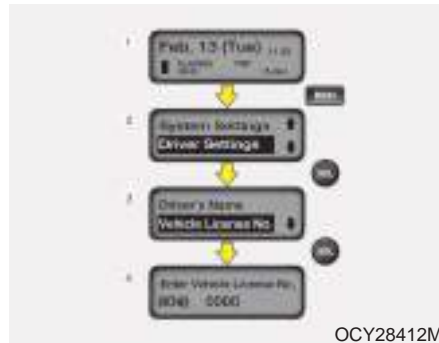
2. Select driver settings mode

3. Select driver's name mode

4. Driver's Name : Inquiry & modification

- Use direction key to select and save it with SEL key.
- Click VDC to escape the saving and it goes to (3).

Vehicle license number



1. Initial screen

It displays Date, Time, Driving condition, Travel hour, Travel distance.

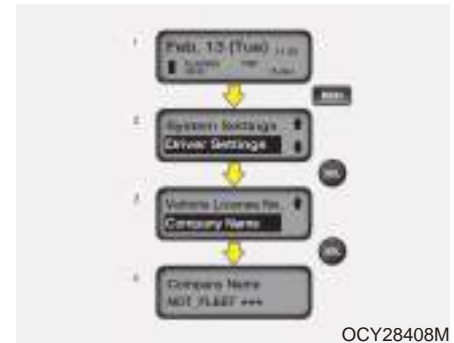
2. Select driver settings mode

3. Select vehicle license No. mode

4. Vehicle license No.: Inquiry & modification

- Use direction key to select and save it with SEL key.
- Click VDC to escape the saving and it goes to (3).

Company name



1. Initial screen

It displays Date, Time, Driving condition, Travel hour, Travel distance.

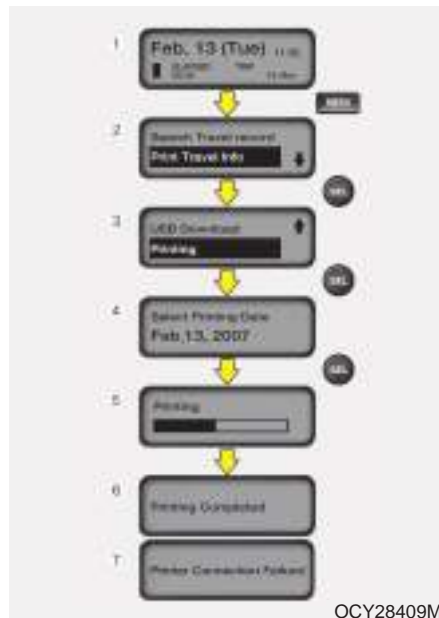
2. Select driver settings mode

3. Select company name mode

4. Vehicle license No.: Inquiry & modification

- Use direction key to select and save it with SEL key.
- Click VDC to escape the saving and it goes to (3).

Printing



Shortcut setting: Press key to move to (4).

1. Initial screen

It displays Date, Time, Driving condition, Travel hour, Travel distance.

2. Select print travel info mode

3. Select printing mode

4. Select print date

- All date can be set.
- No travel record will be displayed when no record is available.

5. Displays progression in USB printer

- Click VDC key to escape the process and to move to (3).
- Don't remove printer while it is printing.

6. Displays printing completed in USB printer

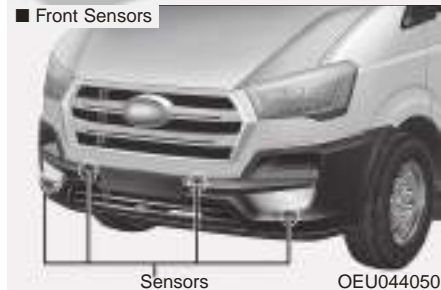
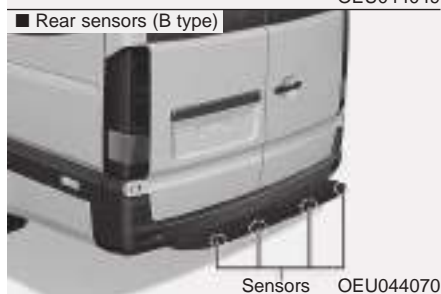
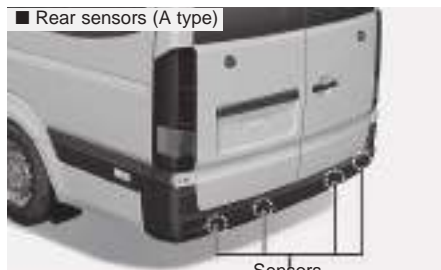
- Don't remove USB printer.

7. Error message is displayed when USB printer is disconnected.

Printing type

- Displays the printing type printed in portable printer integrated version is printed. The printer is based on (48mm, 384dots) Report - Graph.
- Time axis is set 1dot/min. The axis displays 1 minute's average speed as 2dots for 1km/h. If the speed exceeds 150km/h, it displays 150km/h.

PARKING ASSIST SYSTEM (IF EQUIPPED)



This is the parking assist system to warn the driver of object which are detected by front, rear and side sensors with range of distance of sensors operation as warning sound or indicator (LCD) when the vehicle is moved back or forward.

This system is 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.

Whenever getting forward or backing-up, pay as much attention to what is front or behind you as you would in a vehicle without a parking assist system.

WARNING

The parking assist system should only be considered as a supplementary function. The driver must check the front and rear view. The operational function of the parking assist system can be affected by many factors and conditions of the surroundings and can not be operated normally, so the responsibility rests always with the driver.

Rear parking assist system type (if equipped)



The rear sensor detects the distance between vehicle and object. The rear parking assist system assists the driver during backward movement of the vehicle by chiming if any object is sensed within a distance of 120 cm (47 in.) behind the vehicle.

This system is 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 back sensors are limited. Whenever backing-up, pay as much attention to what is behind you as you would in a vehicle without a rear parking assist system.

WARNING

The rear parking assist system is a supplementary function only. The operation of the rear parking assist system can be affected by several factors (including environmental conditions). It is the responsibility of the driver to always check the area behind the vehicle before and while backing up.

Operating condition

- This system will activate when backing up with the ignition switch ON.

If the vehicle is moving at a speed over 10 km/h (6 mph), the system may not be activated correctly.

- This system will activate when the indicator on the rear parking assist system, press the rear parking assist button again. To turn the system on, press the button again. (The indicator on the button will go on.)
- The sensing distance while the rear parking assist system is in operation is approximately 120 cm (47 in.).
- When more than two objects are sensed at the same time, the closest one will be recognized first.

Types of warning sound

- When an object is 120 cm to 61 cm (47.2 in. to 24 in.) from the rear bumper:
Buzzer beeps intermittently.
- When an object is 60 cm to 31 cm (23.6 in. to 12.2 in.) from the rear bumper:
Buzzer beeps more frequently.
- When an object is within 30 cm (11.8 in.) of the rear bumper:
Buzzer sounds continuously.

Non-operational conditions

The rear parking assist system may not operate properly when:

1. Moisture is frozen to the sensor. (It will operate normally when the moisture has been cleared.)
2. The sensor is covered with foreign matter, such as snow or water, or the sensor cover is blocked. (It will operate normally when the material is removed or the sensor is no longer blocked.)
3. Driving on uneven road surfaces. (unpaved roads, gravel, bumps, gradient)
4. Objects generating excessive noise (vehicle horns, loud motorcycle engines, or truck air brakes) are within range of the sensor.
5. Heavy rain or water spray exists.
6. Wireless transmitters or mobile phones are within range of the sensor.
7. The sensor is covered with snow.
8. Trailer towing.
9. The place light the fluorescent lamp.

The detecting range may decrease when:

1. The sensor is stained with foreign matter such as snow or water. (The sensing range will return to normal when removed.)
2. Outside air temperature is extremely hot or cold.

The following objects may not be recognized by the sensor:

1. Sharp or slim objects such as ropes, chains or small poles.
2. Objects which tend to absorb the sensor frequency such as clothes, spongy material or snow.
3. Undetectable objects smaller than 1 m (40 in.) in height and narrower than 14 cm (6 in.) in diameter.

Rear parking assist system precautions

- The rear parking assist system may not sound sequentially depending on the speed and shapes of the objects detected.
- The rear parking assist 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 (11.8 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.

NOTICE

This system can only sense objects within the range and location of the sensors; It can not detect objects in other areas where sensors are not installed. Also, small or slim objects, such as poles or objects located between sensors may not be detected by the sensors.

Always visually check behind the vehicle when backing up.

Be sure to inform any drivers of the vehicle that may be unfamiliar with the system regarding the systems capabilities and limitations.

WARNING

Pay close attention when the vehicle is driven close to objects on the road, particularly pedestrians, and especially children. Be aware that some objects may not be detected by the sensors, due to the object's distance, size or material, all of which can limit the effectiveness of the sensor. Always perform a visual inspection to make sure the vehicle is clear of all obstructions before moving the vehicle in any direction.

Self-diagnosis

If you don't hear an audible warning sound or if the buzzer sounds intermittently when shifting the gear to the R (Reverse) position, this may indicate a malfunction in the rear parking assist system. If this occurs, we recommend that the system be checked by an authorized HYUNDAI dealer.

WARNING

Your new vehicle warranty does not cover any accidents or damage to the vehicle or injuries to its occupants due to a rear parking assist system malfunction. Always drive safely and cautiously.


Front/Rear parking assist system type (if equipped)



The front/rear parking assist system detects the object distance by using the front/rear sensor and front side sensor.

When you select the parking assist system*, the front/rear parking assist system will be operated.

Operating condition

- This parking assist system activates and the indicator on the button illuminates when the parking assist button () is pressed with the ignition switch ON. And it operates in forward, reverse and neutral position of the shift lever.

The parking assist button turns on automatically and activates the parking assist system when you shift the gear to the R (Reverse) position. If you drive the vehicle above 10km/h, the warning will not activate.

- When more than two objects are sensed at the same time, warning indicator is displayed all.
- When more than two objects are sensed at the same time, the closest one will be warned by warning sound.
- While backing up, if the front and rear sensor recognizes an object at the same distance, the rear will be warned first.
- The warnings by side sensors are operated when the shift lever is in R (Reverse) position.

Types of warning sound

When driving forward

- When an object is 100 cm to 61 cm (39 in. to 24 in.) from the bumper:
Buzzer beeps intermittently.
- When an object is 60 cm to 31 cm (23 in. to 12 in.) from the bumper:
Buzzer beeps more frequently.
- When an object is within 30 cm (11 in.) of the bumper:
Buzzer sounds continuously.

When driving rearward

- When an object is 120 cm to 61 cm (47.2 in. to 24 in.) from the bumper:
Buzzer beeps intermittently.
- When an object is 60 cm to 31 cm (23 in. to 12 in.) from the bumper:
Buzzer beeps more frequently.
- When an object is within 30 cm (11 in.) of the bumper:
Buzzer sounds continuously.



CAUTION

- **This system can only sense objects within the range and location of the sensors; It can not detect objects in other areas where sensors are not installed. Also, small or slim objects, such as poles or objects located between sensors may not be detected by the sensors.**
Always visually check front or behind the vehicle when getting forward or backing up.
- **Be sure to inform any drivers of the vehicle that may be unfamiliar with the system regarding the systems capabilities and limitations.**

⚠ WARNING

Pay close attention when the vehicle is driven close to objects on the road, particularly pedestrians, and especially children. Be aware that some objects may not be detected by the sensors, due to the object's distance, size or material, all of which can limit the effectiveness of the sensor. Always perform a visual inspection to make sure the vehicle is clear of all obstructions before moving the vehicle in any direction.

Self-diagnosis

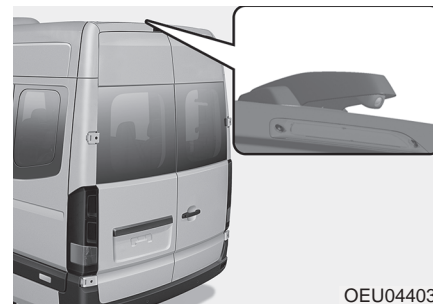
When the front/rear parking assist system has a malfunction, if you operate the system, the warning sound sounds 3 times. In this time, the indicator on switch will blink and the warning on the cluster will blink. However, the warning regarding object will not sound.

In this time, we recommend that the system be checked by an authorized HYUNDAI dealer.

⚠ WARNING

Your new vehicle warranty does not cover any accidents or damage to the vehicle or injuries to its occupants related to a parking assist system. Always drive safely and cautiously.

**REARVIEW CAMERA
(IF EQUIPPED)**



The rearview camera will activate when the back-up light is ON with the ignition switch ON and the shift lever in the R (Reverse) position.

This system is a supplemental system that shows behind the vehicle through the rearview display mirror while backing-up.

WARNING

- **This system is a supplementary function only. It is the responsibility of the driver to always check the inside/outside rearview mirror and the area behind the vehicle before and while backing up because there is a dead zone that can't see through the camera.**
- **Always keep the camera lens clean. If lens is covered with foreign matter, the camera may not operate normally.**

HAZARD WARNING FLASHER



The hazard warning flasher should be used whenever you find it necessary to stop the vehicle in a hazardous location. When you must make such an emergency stop, always pull off the road as far as possible.

The hazard warning lights are turned on by pushing in the hazard switch. This causes all turn signal lights to blink. The hazard warning lights will operate even though the key is not in the ignition switch.

To turn the hazard warning lights off, push the switch a second time.

LIGHTING

Battery saver function

- The purpose of this feature is to prevent the battery from being discharged. The system automatically turns off the parking lights when the driver removes the ignition key and opens the driver-side door.
- With this feature, the parking lights will be turned off automatically if the driver parks on the side of road at night.

If necessary, to keep the lights on when the ignition key is removed, perform the following :

- 1) Open the driver-side door.
- 2) Turn the parking lights OFF and ON again using the light switch on the steering column.

Headlight escort function (if equipped)

The headlights (and/or taillights) remain on for approximately 5 minutes after the ignition key is removed or turned to the ACC or LOCK position. However, if the driver's door is opened and closed, the headlights are turned off after 30 seconds.

The headlights can be turned off by pressing the lock button on the transmitter twice or turning off the light switch from the headlight or Auto light position.

CAUTION

If the driver gets out of the vehicle through other doors (except driver's door), the battery saver function does not operate and the headlight escort function does not turn off automatically. Therefore, it causes the battery to be discharged. In this case, make sure to turn off the lamp before getting out of the vehicle.

Headlight welcome function (if equipped)

When the headlight switch is in the ON or AUTO position and all doors (and tailgate) are closed and locked, if you press the door unlock button on the transmitter the headlights will come on for about 15 seconds.

If the headlight switch is in the AUTO position, the function can only operate at night.

At this time, if you press the door unlock button again or door lock button on the transmitter, the headlights will turn off immediately.

Lighting control



The light switch has a Headlight and a Parking light position.

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

- (1) OFF position
- (2) Parking light position
- (3) Headlight position
- (4) Auto light position (if equipped)

Parking light position (㉔)



When the light switch is in the parking light position, the tail, position, license and instrument panel lights are ON.

Headlight position (㉕)



When the light switch is in the headlight position the head, tail, position, license and instrument panel lights are ON.

NOTICE

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

Auto light position (if equipped)



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

If you turn on the auto light switch and operate the wiper for more than 20 seconds in the daytime, the tail-light and headlight are turned on low.

NOTICE

- Don't clean the sensor using a window cleaner, the cleaner may leave a light film which could interfere with sensor operation.
- If your vehicle has window tint or other types of coating on the front windshield, the Auto light system may not work properly.

High - beam operation



To turn on the high beam headlights, push the lever away from you. Pull it back for low beams.

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

To prevent the battery from being discharged, do not leave the lights on for a prolonged time while the engine is not running.

⚠ WARNING

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

Flashing headlights



To flash the headlights, pull the lever towards you. It will return to the normal (low-beam) position when released. The headlight switch does not need to be on to use this flashing feature.

Turn signals and lane change signals



The ignition switch must be on for the turn signals to function. To turn on the turn signals, move the lever up or down (A). Green arrow indicators on the instrument panel indicate which turn signal is operating.

They will self-cancel after a turn is completed. If the indicator continues to flash after a turn, manually return the lever to the OFF position.

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.

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 lane change function (if equipped)

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

NOTICE

If an indicator flash is abnormally quick or slow, bulb may be burned out or have a poor electrical connection in the circuit.

Front fog light (if equipped)



Fog lights are used to provide improved visibility when visibility is poor due to fog, rain or snow, etc. The fog lights will turn on when pressing the fog light switch after the parklight is turned on.

To turn off the fog lights, press the fog light switch again.

CAUTION

When in operation, the fog lights consume large amounts of vehicle electrical power. Only use the fog lights when visibility is poor.

Rear fog light (if equipped)



To turn the rear fog lights on, turn the headlight switch to the headlight on position and press the rear fog light switch.

The rear fog lights turn on when the rear fog light switch is turned on after the front fog light switch (if equipped) is turned on and the headlight switch is in the parklight position.

To turn the rear fog lights off, press the rear fog light switch again or turn the headlight switch off.

Information

To turn on the rear fog light switch, the ignition switch must be in the ON position.

Daytime running light (if equipped)

Daytime Running Lights (DRL) can make it easier for others to see the front of your vehicle during the day. DRL can be helpful in many different driving conditions, and it is especially helpful after dawn and before sunset.

The DRL system will make the headlights turn OFF when:

1. The parklight switch is ON.
2. Engine stops.

Headlight leveling device (if equipped)



To adjust the headlight beam level according to the number of the passengers and the loading weight in the luggage area, turn the beam leveling switch.

The higher the number of the switch position, the lower the headlight beam level. Always keep the headlight beam at the proper leveling position, or headlights may dazzle other road users.

Listed below are the examples of proper switch settings. For loading conditions other than those listed below, adjust the switch position so that the beam level may be the nearest as the condition obtained according to the list.

Loading condition	Switch position	
	VAN/TRUCK	BUS
Driver only	0	0
Maximum permissible mass	3	1

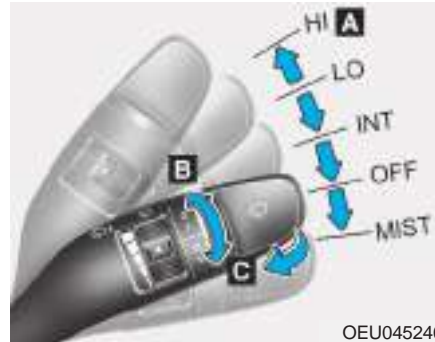
⚠ WARNING

If it does not work properly even though your vehicle is inclined backward according to passenger's posture, or the headlight beam is irradiated to the high or low position, we recommend that you have your vehicle inspected by an authorized HYUNDAI dealer.

Do not attempt to inspect or replace the wiring yourself.

WIPERS AND WASHERS

Windshield wiper/washer



A : Wiper speed control (front)

- ^ (MIST) – Single wipe
- O (OFF) – Off
- (INT) – Intermittent wipe
- AUTO - Automatic control wipe (if equipped)
- 1 (LO)– Low wiper speed
- 2 (HI) – High wiper speed

B : Intermittent control wipe time adjustment

C : Wash with brief wipes (front)

Windshield wipers

Operates as follows when the ignition switch is turned ON.

^ (MIST) : For a single wiping cycle, move the lever to this (MIST) position and release it. The wipers will operate continuously if the lever is held in this position.

O (OFF) : Wiper is not in operation

--- (INT) : Wiper operates intermittently at the same wiping intervals. Use this mode in light rain or mist. To vary the speed setting, turn the speed control knob.

AUTO : 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 more it rains, the faster the wiper operates. When the rain stops, the wiper stops. To vary the speed setting, turn the speed control knob (B).

- 1 (LO) : Normal wiper speed
- 2 (HI) : Fast wiper speed

NOTICE

- 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.

- When the wipers do not properly wipe out the front windshield, they may be worn out or cracked. In this case, replace the wipers with the new ones.

Auto 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 more it rains, the faster the wiper operates.

When the rain stops, the wiper stops.

To vary the speed setting, turn the speed control knob (1).

If the wiper switch is set in AUTO mode when the ignition switch is ON, the wiper will operate once to perform a self-check of the system. Set the wiper to OFF position when the wiper is not in use.

⚠ WARNING

When the ignition switch is ON and the windshield wiper switch is placed in the AUTO mode, use caution in the following situations to avoid any injury to the hands or other parts of the body:

- 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.

 **CAUTION**

When washing the vehicle, set the wiper switch in the OFF position to stop the auto wiper operation.

The wiper may operate and be damaged if the switch is set in the AUTO mode while washing the vehicle.

Do not remove the sensor cover located on the upper end of the passenger side windshield glass. Damage to system parts could occur and may not be covered by your vehicle warranty.

When starting the vehicle in winter, set the wiper switch in the OFF position. Otherwise, wipers may operate and ice may damage the windshield wiper blades. Always remove all snow and ice and defrost the windshield properly prior to operating the windshield wipers.

 **CAUTION**

Some wiper operation modes may be changed, while operating, as the wiper-motor protecting function activates (in the safe mode) under the below conditions:

- Wiper operation for an extend period of time while parking/stopping a vehicle with the engine running
- Wiper operation in the HI position for an extend period of time, while driving at a low speed or driving with high RPM
- Wiper operation for an extend period of time on the windshield that is dry without rain water or window washer

(Continued)

(Continued)

Activation of the Safe Mode

- Automatic change to LO from HI
- Automatic change to INT from LO
- Automatic stop from INT

*The safe mode function is installed in the automatic wiper motor. This is to protect wiper components from the system overload, which may be caused by snow or other foreign substances on a windshield.

Those do not signify a problem with the wiper system. In this case, take the below measures.

- Stop the engine and the wiper operation after stopping or parking a vehicle

(Continued)

(Continued)

- Control of the wiper speed below the HI position, as the situation allows, while driving at a low speed
- Stop the wiper operation on a dry windshield
- Although the rain stops during driving with the wiper switch in AUTO, the wiper may continuously operate if the rainwater remains on the windows.

Windshield washers



In the OFF position, pull the lever gently toward you to spray washer fluid on the windshield and to run the wipers 1-3 cycles.

Use this function when the windshield is dirty.

The spray and wiper operation will continue until you release the lever.

If the washer does not work, check the washer fluid level. If the fluid level is not sufficient, you will need to add appropriate non-abrasive windshield washer fluid to the washer reservoir.

The reservoir filler neck is located in the front of the engine compartment on the passenger side.

CAUTION

To prevent possible damage to the washer pump, do not operate the washer when the fluid reservoir is empty.

WARNING

Do not use the washer in freezing temperatures without first warming the windshield with the defrosters; the washer solution could freeze on the windshield and obscure your vision.

CAUTION

- 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 blades, do not use gasoline, kerosene, paint thinner, or other solvents on or near them.
- 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.

INTERIOR LIGHT

CAUTION

Do not use the interior lights for extended periods when the engine is not running. It may cause battery discharge.

WARNING



Do not use the interior lights when driving in the dark. Accidents could happen because the view may be obscured by interior lights.

Map lamp



OEU044039

Push the switch (1) to turn the map lamp on or off.

-  : The light (with room lamp) stays on at all times.
-  : The light (with room lamp) comes on when any door (except rear door) is opened regardless of the ignition switch position. When doors (except rear door) are unlocked by the transmitter, the light (with room lamp) comes on for approximately 30 seconds as long as any door (except rear door) is not opened.

Also, the light (with room lamp) goes out gradually after approximately 30 seconds if the door (except rear door) is closed. However, if the ignition switch is ON or all doors (except rear door) are locked, the light will turn off immediately.

If a door (except rear door) is opened with the ignition switch in the ACC or LOCK position, the light (with room lamp) stays on for about 20 minutes. However, if a door (except rear door) is opened with the ignition switch in the ON position, the light (with room lamp) stays on continuously.

Reading lamp (if equipped)



The reading lamp is turned on by pushing switch and if the switch is pushed on more the reading lamp will be turned off.

NOTICE

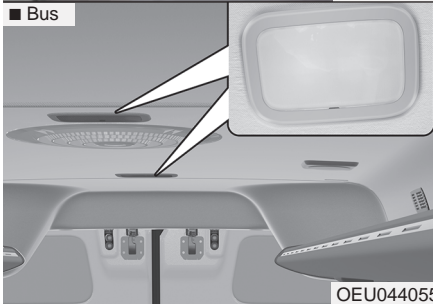
To use the reading lamp, push the main switch with the ignition switch "ON" position.

Room lamp (if equipped)

■ Switch



■ Bus



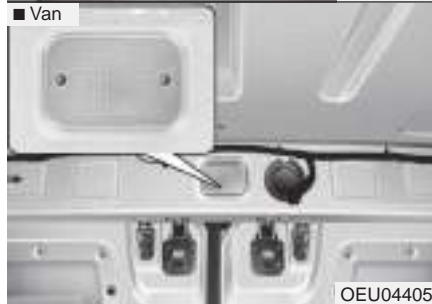
If you press the switch, the room lamp turns on. When you want to turn it off, press that switch once more.

Cargo lamp (if equipped)

■ Switch

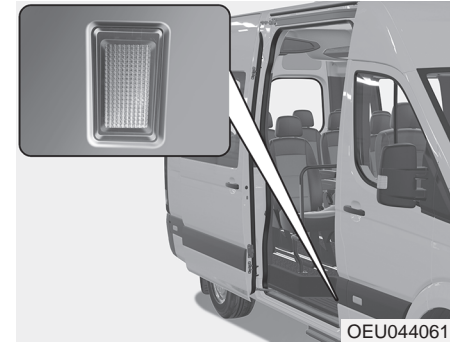


■ Van



The cargo bed lamp comes on when the mid sliding door and rear door is opened, or the cargo lamp switch is on.

Rear step lamp (if equipped)



The rear step lamp comes on when the mid sliding door is opened.

DEFROSTER

CAUTION

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.

NOTICE

If you want to defrost and defog on the front windshield, refer to “Windshield Defrosting and Defogging” in this section.

Outside rearview mirror heater (if equipped)

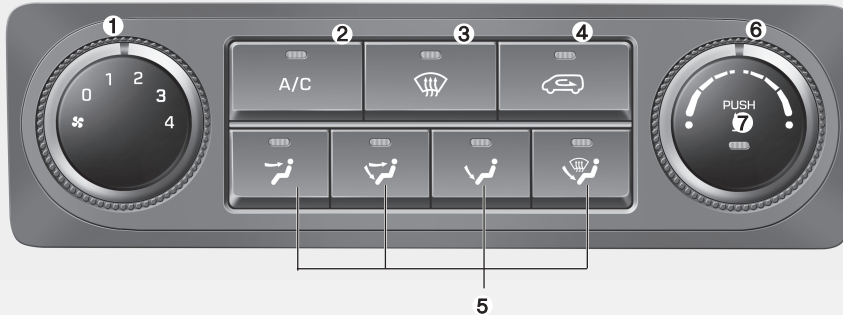


To heat the outside rearview mirror glass, push the switch. The rearview mirror glass will be heated for defrosting or defogging and will give you improved rear vision in inclement weather conditions. Push the switch again to turn the heater off. The outside rearview mirror heater automatically turns itself off after 20 minutes.

NOTICE

The ignition switch must be in the “ON” (Engine is started) position for the heated outside rearview mirror.

CLIMATE CONTROL SYSTEM (IF EQUIPPED)



1. Fan speed control knob
2. Air conditioning button (if equipped)
3. Defroster button (Front windshield defroster)
4. Air intake control button
5. Mode selection button
6. Temperature control knob
7. Fuel-fired heater button (if equipped)

CAUTION


Operating the blower when the ignition switch is in the ON position could cause the battery to discharge. Operate the blower when the engine is running.

OEU044165

Heating and air conditioning

1. Start the engine.
2. Set the mode to the desired position.

For improving the effectiveness of heating and cooling;

- 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 (if equipped) on.



Mode selection



OEU044166

The mode selection buttons controls the direction of the air flow through the ventilation system.

Face-Level (B, D)



Selecting the “Face” mode will cause air to be discharged through the face level vents.

Bi-Level (B, C, D)



Air is discharged through the face vents and the floor vents.

Floor-Level (A, C, D)



Air is discharged through the floor vents.

Floor-Defrost Level (A, C, D)



Air is discharged through the windshield defrost vents and the floor vents.

Defrost-Level



Air is discharged through the windshield defrost vents.



Instrument panel vents

The outlet vents can be opened or closed separately using the thumb-wheel.

Also, you can adjust the direction of air delivery from these vents using the vent control lever as shown.

Temperature control



The temperature control knob allows you to control the temperature of the air flowing from the ventilation system. To change the air temperature in the passenger compartment, turn the knob to the right position for warm and hot air or left position for cooler air.

Air intake control



The air intake control is used to select the 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.

NOTICE

Prolonged operation of the heater in the recirculated air position (without air conditioning selected) may cause fogging of the windshield and side windows and the air within the passenger compartment may become stale.

In addition, prolonged use of the air conditioning with the recirculated air position selected will result in excessively dry air in the passenger compartment.

WARNING

- Continue using the climate control system 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.
- Continue using the climate control system 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



OEU044169

The ignition switch must be in the ON position for fan operation.

The fan speed control knob allows you to control the fan speed of the air flowing from the ventilation system. To change the fan speed, turn the knob to the right for higher speed or left for lower speed.

Setting the fan speed control knob to the "0" position turns off the fan.

To turn off the blowers



OEU044170

To turn off the blowers, turn the fan speed control knob to the "0" position.

Air conditioning (if equipped)



OEU044171

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 heating and air conditioning (if equipped)



The temperature, fan speed and mode of the rear climate control system can be controlled independently regardless of the front climate control system operation.

However, the front climate control system should be operated together for rear air conditioning;

1. Set the front fan speed to the desired position.
2. Turn the air conditioning button and set the rear temperature, fan speed to the desired position.




Rear vents




The lower vent can be adjusted by rotating the thumb wheel.

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  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.
- Air for the heating/cooling system is drawn in through the grilles just ahead of the windshield. Care should be taken that these are not blocked by leaves, snow, ice or other obstructions.
- 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 desired temperature.

Air conditioning (if equipped)

HYUNDAI Air Conditioning Systems are filled with environmentally friendly 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.
- When maximum cooling is desired, set the temperature control to the extreme left position, then set the fan speed control to the highest speed.

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 blower 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 run 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.
- 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.
- During air conditioning system operation, you may occasionally notice a slight change in engine speed as the air conditioning compressor cycles. This is a normal system operation characteristic.
- Use the air conditioning system every month only for a few minutes to ensure maximum system performance.
- When using the air conditioning system, you may notice clear water dripping (or even puddling) on the ground under the passenger rear side of the vehicle. This is a normal system operation characteristic.
- Operating the air conditioning system in the recirculated air position provides maximum cooling, however, continual operation in this mode may cause the air inside the vehicle to become stale.
- During cooling operation, you may occasionally notice a misty air flow because of rapid cooling and humid air intake. This is a normal system operation characteristics.

Fuel-fired Heater (if equipped)



OEU044225

This fuel-fired heater supplies additional heat to the interior compartment with a low fuel consumption to compensate the heat provided by engine alone.

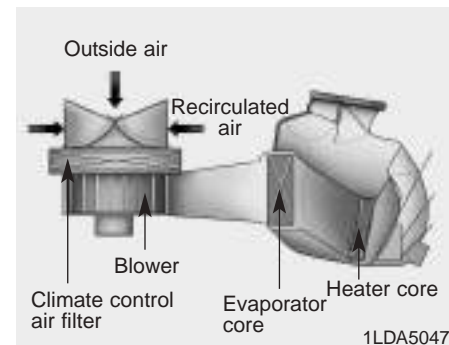
A cleaning process of the fuel-fired heater will be performed automatically when the heater is not operated due to increase of coolant temperature and ignition off.

During cleaning process, supplied fuel in the heater will be burnt completely and any smoke will be expelled. It is a necessary process for next operation and durability of the heater and takes about 1~3 minutes.

NOTICE

- The following symptoms will occur and it is normal.
 - A white smoke may come out from the fuel-fired heater exhaust pipe during operation of the heater. However, when an excessive black smoke is discharged, the fuel-fired heater should be inspected.
 - A “buk-buk” noise from the heater is a noise to form flame for combustion.
 - When the heater is operated at full load, a “Wooing” noise occurs.
 - When shutting off the engine during heater operation, a “Wing” noise occurs to perform the cleaning process.
- When refueling, stop operation of the fuel-fired heater by shutting off the engine.

Climate control air filter (if equipped)



The climate control air filter installed behind the glove box filters the dust or other pollutants that come into the vehicle from the outside through the heating and air conditioning system. If dust or other pollutants accumulate in the filter over a period of time, the air flow from the air vents may decrease, resulting in moisture accumulation on the inside of the windshield even when the outside (fresh) air position is selected. If this happens, we recommend that the climate control air filter be replaced by an authorized HYUNDAI dealer.

NOTICE

- Replace the filter according to the Maintenance Schedule.

If the vehicle is being driven in severe conditions such as dusty or rough roads, more frequent air conditioner filter inspections and changes are required.

- When the air flow rate suddenly decreases, we recommend that the system be checked by 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 has a negative impact on the air conditioning system.

Therefore, we recommend that the system be inspected by an authorized HYUNDAI dealer.

NOTICE

It is important when servicing the air conditioning system that the correct type and amount of oil and refrigerant is used. Otherwise, damage to the compressor and abnormal system operation may occur.



WARNING

Improper service may cause serious injury to the person performing the service. For more detailed information, we recommend that you contact an authorized HYUNDAI dealer.

WINDSHIELD DEFROSTING AND DEFOGGING

WARNING



Windshield heating

Do not use the  position during cooling operation in extremely humid weather. The difference between the temperature of the outside air and the windshield could cause the outer surface of the windshield to fog up, causing loss of visibility. In this case, set the mode selection to the  position and fan speed control to the lower speed.

- For maximum defrosting, set the temperature control to the extreme right/hot position and the fan speed control to the highest speed.
- 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 the inside of the windshield.

To defog inside windshield




1. Set the fan speed to the desired position.
2. Select desired temperature.
3. Select the  position.
4. The outside (fresh) air will be selected automatically. If the  position is selected, air conditioning (if equipped) will also be selected automatically.

If the air conditioning (if equipped) and/or outside (fresh) air position are not selected automatically, press the corresponding button manually.

To defrost outside windshield

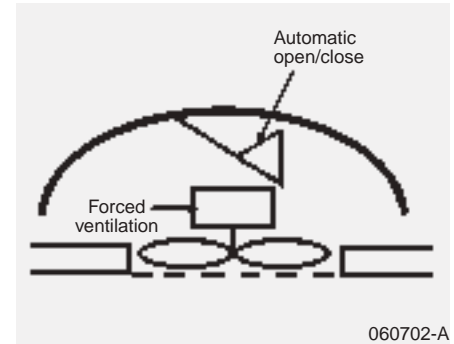


1. Set the fan speed to the highest position.
2. Set the temperature to the extreme hot position.
3. Select the  position.
4. The outside (fresh) air and air conditioning (if equipped) will be selected automatically.

CEILING VENTILATOR



The ventilator is located on the ceiling. It is designed with multiple features.






Forced ventilator

The motor fan has the outside intake, inner air exhaust.

Automatic open/close

The system to open or close the shutter when the motor fan on or off.



1.  : Indoor air exhaustion
(Air shutter: Open)
2.  : Fan non-operation
(Air shutter: Close)
3.  : Outdoor fresh air inflow to indoor
(Air shutter: Open)

STORAGE COMPARTMENT

These compartments can be used to store small items required by the driver or passengers.

NOTICE

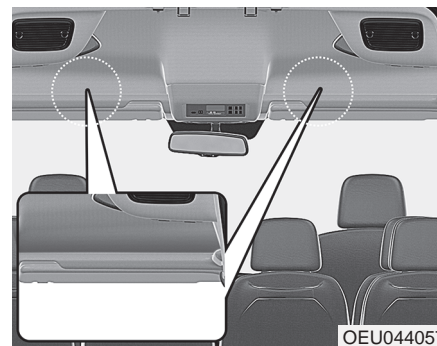
- To avoid possible theft, do not leave valuables in the storage compartment.
- Always keep the storage compartment covers closed while driving. Do not attempt to place so many items in the storage compartment that the storage compartment cover can not close securely.

WARNING

Flammable materials

Do not 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.

Overhead storage (if equipped)



The storage compartment above the windshield.

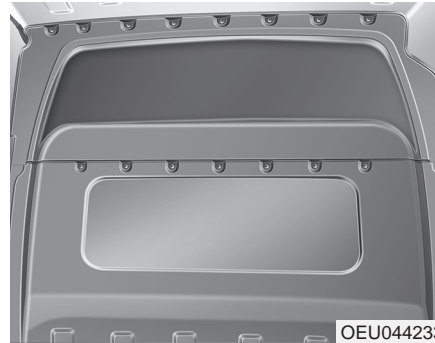
The right and left storage space may be loaded with a maximum of 5.5lbs(2.5kg) each.

WARNING

Do not keep objects like as heavy or sharp things inside the storage.

Such objects can be thrown from the storage in the event of a sudden stop or an accident, possibly injuring the passengers in the vehicle.

Storage space above the headliner (if equipped)



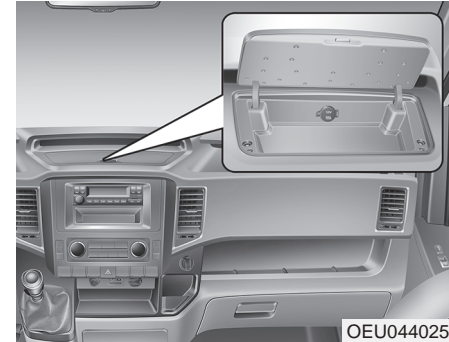
On vehicle with a partition, storage space can be loaded from the cargo compartment.

The entire storage space may be loaded with maximum 44lbs(20kg).

NOTICE

Do not place high, bulky loads in the storage space. Otherwise, you may damage the headliner in the event of sharp braking.

Console storage (if equipped)



These compartments can be used to store small items required by the driver or front passenger.

To open the center console storage pull up the lever.

Glove box



To open the glove box, pull the handle and the glove box will automatically open. Close the glove box after use.

WARNING

To reduce the risk of injury in an accident or sudden stop, always keep the glove box door closed while driving.

NOTICE

Do not keep food in the glove box for a long time.

Sunglass holder



To open the sunglass holder, press the cover and the holder will slowly open. Place your sunglasses in the compartment door with the lenses facing out. Push to close.

⚠ WARNING

- Do not keep objects except sunglasses inside the sunglasses holder. Such objects can be thrown from the holder in the event of a sudden stop or an accident, possibly injuring the passengers in the vehicle.
- Do not open the sunglasses holder while the vehicle is moving. The rear view mirror of the vehicle can be blocked by an open sunglasses holder.
- Do not put the glasses forcibly into a sunglasses holder to prevent breakage or deformation of glasses. It may cause personal injury if you try to open it forcibly when the glasses are jammed in holder.

INTERIOR FEATURES

Cigarette lighter (if equipped)



For the cigarette lighter to work, the ignition switch must be in the ACC position or the ON position.

To use the cigarette lighter, push it all the way into its socket. When the element has heated, the lighter will pop out to the "ready" position.

Do not hold the cigarette lighter pressed in. This can damage the heating element and create a fire hazard.

⚠ 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

The use of plug-in accessories (shavers, hand-held vacuums, and coffee pots, for example) may damage the socket or cause electrical failure.

Ashtray (if equipped)

To use the ashtray, open the cover.

To clean or empty the ashtray, pull it out.

WARNING

Ashtray use

- Do not use the vehicle's ashtrays as waste receptacles.
- Putting lit cigarettes or matches in an ashtray with other combustible materials may cause a fire.

Cup holder

WARNING

Hot liquids

- Do not place uncovered cups of hot liquid in the cup holder while the vehicle is in motion. If the hot liquid spills, you burn yourself. Such a burn to the driver could lead to loss of control of the vehicle.
- To reduce the risk of personal injury in the event of sudden stop or collision, do not place uncovered or unsecured bottles, glasses, cans, etc., in the cup holder while the vehicle is in motion.

WARNING

Keep cans or bottles out of direct sun light and do not put them in a vehicle that is heated up. It may explode.

NOTICE

Do not place uncovered cups in the cup holder while the vehicle is in motion. If the liquid spills, electric systems may malfunction.



Cups or small beverage cans may be placed in the cup holders.

Sunvisor



Use the sunvisor to shield direct light through the front or side windows.

To use the sunvisor, pull it downward.

To use the sunvisor for the side window, pull it downward, unsnap it from the bracket (1) and swing it to the side (2).

WARNING

For your safety, do not obstruct your vision when using the sunvisor.

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 10 amps with the engine running.

※There is a cable hole which enables the use of the power outlet with the crash-pad console storage cover being closed. To allow a cable to pass through the hole, open the crash-pad console storage, connect to the power outlet, and fit the cable into the hole before closing the crash-pad console storage cover.

Some thick connectors may not pass from the crash-pad to the crash-pad console storage cover.

Do not store any volatile or inflammable substance or liquid inside the crash-pad console storage while using the power outlet with the cover closed. The heat generated by the power outlet may cause a fire.

CAUTION

- Use 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.

(Continued)

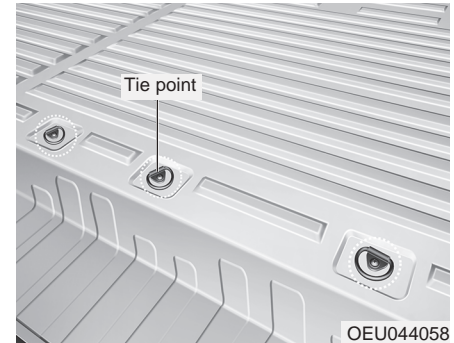
(Continued)

- Only use 12V electric accessories which are less than 10A 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.

WARNING

Do not put a finger or a foreign element (pin, etc.) into a power outlet and do not touch with a wet hand. You may get an electric shock.

CARGO BED(FOR VAN)



WARNING

- If you attach the lashing strap incorrectly when securing the load, the following may occur in the event of abrupt changes in direction, braking manoeuvres or an accident
 - The lashing tie points may become detached or the lashing strap may tear if the permissible load is exceeded.

(Continued)

(Continued)

- The load may not be restrained.

This may cause the load to slip, tip over or be tossed about, striking vehicle occupants. There is a risk of an accident and injury.

Always tension the lashing straps in the proper manner and only between the described lashing tie points. Always use lashing straps designed specifically for the loads.

- Observe the notes regarding the maximum load capacity of individual lashing points.
- Spread the load evenly between the lashing points or eyelets.

* If your vehicle is equipped with loading rails in the load compartment floor, you can place lashing rods directly in front of and behind the load.

As the driver, you are responsible for ensuring that:

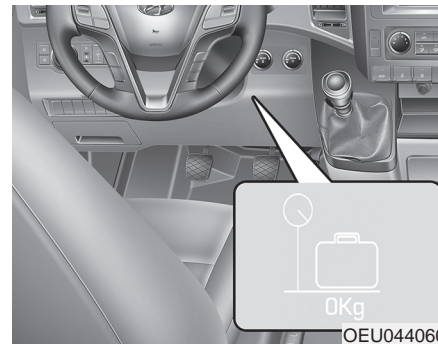
- The applicable requirements and guidelines relating to load-securing practices must be met.

If this is not the case, this may constitute a punishable offence, depending on local legislation and any ensuing consequences.

You should therefore observe the respective legal requirements for the relevant country.

- Make sure that the load is secure before every journey and at regular intervals during a long journey. Adjust the load as necessary

Luggage mass label



The luggage mass label informs you the weight of cargo you to be able to load.

Multimedia System

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MULTIMEDIA SYSTEM

i Information

- If you install an aftermarket HID headlamp, your vehicle's audio and electronic device 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.

Aux, USB and iPod® (if equipped)



If your vehicle has an aux and/or USB(universal serial bus) port, you can use an aux port to connect audio devices and an USB port to plug in an USB.

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.

* iPod® is a trademark of Apple Inc.

Antenna



Roof antenna

Your vehicle uses a roof antenna to receive both AM and FM broadcast signals. This antenna is a removable type. To remove the antenna, turn it counterclockwise. To install the antenna, turn it clockwise.

NOTICE

- Before entering a place with a low height clearance or a vehicle wash, remove the antenna by rotating it counterclockwise. If not, the antenna may be damaged.
- When reinstalling your antenna, it is important that it is fully tightened and adjusted to the upright position to ensure proper reception. But it could be folded or removed when parking the vehicle or when loading cargo on the roof rack.
- When cargo is loaded on the roof rack, do not place the cargo near the antenna pole to ensure proper reception.

Audio remote control (if equipped)



OEU045242

The steering wheel audio remote control button is installed to promote safe driving.

NOTICE

Do not operate audio remote control buttons simultaneously.

VOL (🔊+ / 🔊-) (1)

- Press the up button (🔊+) to increase volume.
- Press the down button (🔊-) to decrease volume.

SEEK (^ / v) (2)

If the SEEK button is pressed for 0.8 second or more, it will work as follows in each mode.

RADIO mode

It will function as the AUTO SEEK select button.

CDP mode

It will function as the FF/REW button.

CDC mode

It will function as the DISC UP/DOWN button.

If the SEEK button is pressed for less than 0.8 second, it will work as follows in each mode.

RADIO mode

It will function as the PRESET STATION select buttons.

CDP mode

It will function as the TRACK UP/DOWN button.

CDC mode

It will function as the TRACK UP/DOWN button.

Detailed information for audio control buttons is described in the following pages in this section.

MODE (3)

Press the button to select Radio or CD (compact disc).

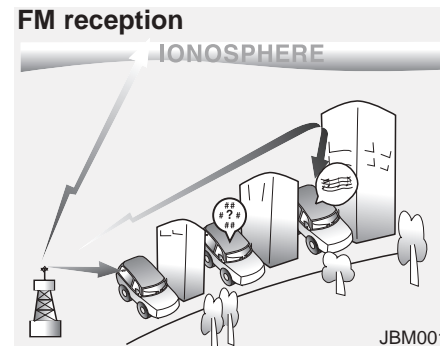
MUTE (4)

- Press the MUTE button to cancel the sound.
- Press the MUTE button again to activate the sound.

i Information

Detailed information for audio control buttons are described in the following pages in this chapter.

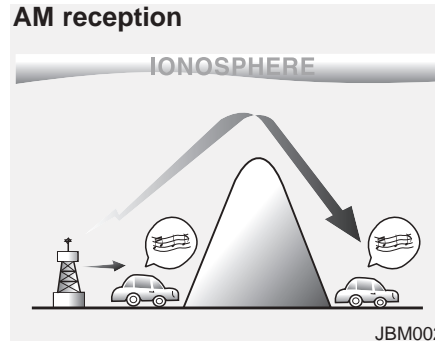
How vehicle audio works



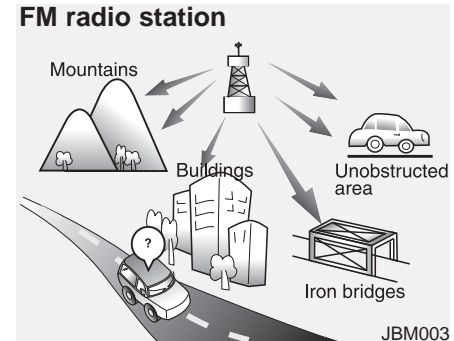
AM and FM radio signals are broadcast from transmitter towers located around your city. They are intercepted by the radio antenna on your vehicle. This signal is then processed by the radio and sent to your vehicle speakers.

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.

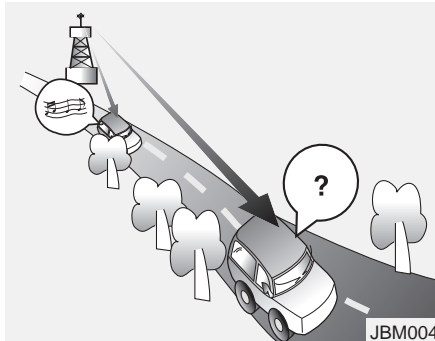
This can be due to factors, such as the distance from the radio station, closeness of other strong radio stations or the presence of buildings, bridges or other large obstructions in the area.



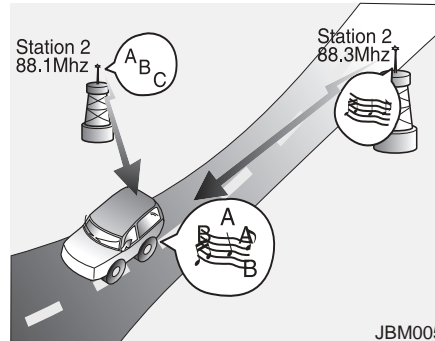
AM broadcasts can be received at greater distances than FM broadcasts. This is because AM radio waves are transmitted at low frequencies. These long distance, low frequency radio waves can follow the curvature of the earth rather than travelling straight. In addition, they curve around obstructions resulting in better signal coverage.



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 within short distances from the station. Also, FM signals are easily affected by buildings, mountains, and obstructions. This can lead to undesirable or unpleasant 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 an 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 two-way 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.

⚠ WARNING

Do not use a cellular phone while driving. Stop at a safe location to use a cellular phone.

Caring for disc

- If the temperature inside the vehicle is too high, open the vehicle windows to ventilate before using the system.
- It is illegal to copy and use MP3/WMA files without permission. Use CDs that are created only by lawful means.
- Do not apply volatile agents, such as benzene and thinner, normal cleaners and magnetic sprays made for analogue disc onto CDs.
- To prevent the disc surface from getting damaged, hold CDs by the edges or the center hole only.
- Clean the disc surface with a piece of soft cloth before playback (wipe it from the center to the outside edge).
- Do not damage the disc surface or attach pieces of sticky tape or paper.
- Make certain only CDs are inserted into the CD player (Do not insert more than one CD at a time).

- Keep CDs in their cases after use to protect them from scratches or dirt.
- Depending on the type of CD-R/CD-RW CDs, certain CDs may not operate normally according to manufacturing companies or making and recording methods. In such circumstances, continued use may cause malfunctions to your audio system.

i Information - Playing an Incompatible Copy Protected Audio CD

Some copy protected CDs, which do not comply with international audio CD standards (Red Book), may not play on your vehicle audio. Please note that inability to properly play a copy protected CD may indicate that the CD is defective, not the CD player.

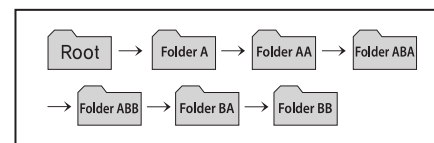
NOTICE:

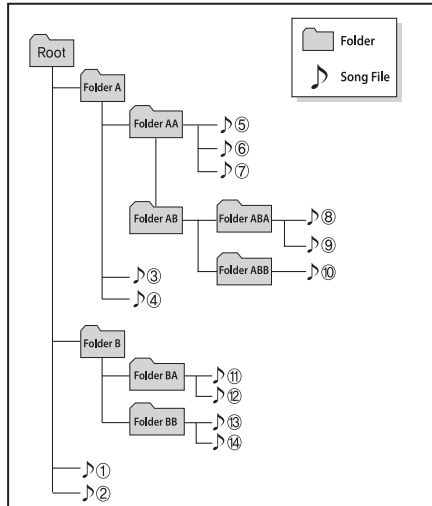
Order of playing files (folders) :

1. Song playing order : ① to ⑭

2. Folder playing order :

* If no song file is contained in the folder, that folder is not displayed.





⚠ WARNING

- Do not stare at the screen while driving. Staring at the screen for prolonged periods of time could lead to traffic accidents.
- Do not disassemble, assemble, or modify the audio system. Such acts could result in accidents, fire, or electric shock.
- Obey the applicable regulations relevant to the mobile-phone usage. If not, it is clearly the violation against the traffic laws.
- Heed caution not to spill water or introduce foreign objects into the device. Such acts could lead to smoke, fire, or product malfunction.

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- Please refrain from use if the screen is blank or no sound can be heard as these signs may indicate product malfunction. Continued use in such conditions could lead to accidents (fires, electric shock) or product malfunctions.
- Do not touch the antenna during thunder or lightening as such acts may lead to lightning induced electric shock.
- Do not stop or park in parking-restricted areas to operate the product. Such acts could lead to traffic accidents.
- Use the system with the vehicle ignition turned on. Prolonged use with the ignition turned off could result in battery discharge.

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- Driving while distracted can result in a loss of vehicle control that may lead to an accident, severe personal injury, and death. The driver's primary responsibility is in the safe and legal operation of a vehicle, and use of any handheld devices, other equipment, or vehicle systems which take the driver's eyes, attention and focus away from the safe operation of a vehicle or which are not permissible by law should never be used during operation of the vehicle.

NOTICE

- Operating the device while driving could lead to accidents due to a lack of attention to external surroundings. First park the vehicle before operating the device.
- Adjust the volume to levels that allow the driver to hear sounds from outside of the vehicle. Driving in a state where external sounds cannot be heard may lead to accidents.
- Pay attention to the volume setting when turning the device on. A sudden output of extreme volume upon turning the device on could lead to hearing impairment. (Adjust the volume to a suitable levels before turning off the device.)

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- Turn on the vehicle ignition before using this device. Do not operate the audio system for long periods of time with the ignition turned off as such operations may lead to battery discharge.
- Do not subject the device to severe shock or impact. Direct pressure onto the front side of the monitor may cause damage to the LCD or touch screen.
- When cleaning the device, make sure to turn off the device and use a dry and smooth cloth. Never use tough materials, chemical cloths, or solvents (alcohol, benzene, thinners, etc.) as such materials may damage the device panel or cause color/quality deterioration

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- Do not place beverages close to the audio system. Spilling beverages may lead to system malfunction.
- In case of product malfunction, please contact your place of purchase or After Service center.
- Placing the audio system within an electromagnetic environment may result in noise interference.
- Prevent caustic solutions such as perfume and cosmetic oil from contacting the dashboard because they may cause damage or discoloration.

i Information

- Using the USB device

- To use an external USB device, make sure the device is not connected when starting up the vehicle. Connect the device after starting up.
- If you connect any external device while driving, it may lose the vehicle control and increase the accident risk. Park the vehicle before connecting any external devices.
- Park the vehicle on a safe location before connecting any external USB device.
- If you start the engine when the USB device is connected, it may damage the USB device. (USB flash-drives are very sensitive to electric shock.)
- If the engine is started up or turned off while the external USB device is connected, the external USB device may not work.
- The System may not play inauthentic MP3 or WMA files.
 - 1) It can only play MP3 files with the compression rate between 8Kbps ~ 320Kbps.

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- 2) It can only play WMA music files with the compression rate between 8Kbps ~ 320Kbps.
- Take precautions for static electricity when connecting or disconnecting the external USB device.
 - An encrypted MP3 PLAYER is not recognizable.
 - Depending on the condition of the external USB device, the connected external USB device can be unrecognizable.
 - When the formatted byte/sector setting of External USB device is not either 512BYTE or 2048BYTE, then the device will not be recognized.
 - Use only a USB device formatted to FAT 12/16/32.
 - USB devices without USB I/F authentication may not be recognizable.
 - Make sure the USB connection terminal does not come in contact with the human body or other objects.
 - If you repeatedly connect or disconnect the USB device in a short period of time, it may break the device.

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- You may hear a strange noise when connecting or disconnecting a USB device.
- If you disconnect the external USB device during playback in USB mode, the external USB device can be damaged or may malfunction. Therefore, disconnect the external USB device when the audio is turned off or in another mode. (e.g, Radio, CD)
- Depending on the type and capacity of the external USB device or the type of the files stored in the device, there is a difference in the time taken for recognition of the device.
- Do not use the USB device for purposes other than playing music files.
- Playing videos through the USB is not supported.
- Use of USB accessories such as rechargers or heaters using USB I/F may lower performance or cause trouble.

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- If you use devices such as a USB hub purchased separately, the vehicle's audio system may not recognize the USB device. In that case, connect the USB device directly to the multimedia terminal of the vehicle.
- If the USB device is divided by logical drives, only the music files on the highest-priority drive are recognized by vehicle audio.
- Devices such as MP3 Player/ Cellular phone/Digital camera can be unrecognizable by standard USB I/F can be unrecognizable.
- Charging through the USB may not be supported in some mobile devices.
- USB HDD or USB types liable to connection failures due to vehicle vibrations are not supported. (i-stick type)
- Some non-standard USB devices (METAL COVER TYPE USB) can be unrecognizable.



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- Some USB flash memory readers (such as CF, SD, micro SD, etc.) or external-HDD type devices can be unrecognizable.
- Music files protected by DRM (DIGITAL RIGHTS MANAGEMENT) are not recognizable.
- The data in the USB memory may be lost while using this audio. Always back up important data on a personal storage device.
- Please avoid using USB memory products which can be used as key chains or cellular phone accessories as they could cause damage to the USB jack. Please make certain only to use plug type connector products.

i Information

- Using the iPod® device

- Some iPod® models may not support communication protocol and files may not properly play.

Supported iPod® models:

- iPod® Mini
- iPod® 4th (Photo) ~ 6th (Classic) generation
- iPod® Nano 1st~4th generation
- iPod® Touch 1st~2nd generation
- The order of search or playback of songs in the iPod® can be different from the order searched in the audio system.
- If the iPod® disabled due to its own malfunction, reset the iPod®. (Reset: Refer to iPod® manual)
- An iPod® may not operate normally on low battery.
- If you connect any external device while driving, it may lose the vehicle control and increase the accident risk. Park the vehicle before connecting any external devices.
- Park the vehicle on a safe location before connecting an iPod®.

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- Some iPod® devices, such as the iPhone®, can be connected through the Bluetooth® Wireless Technology interface. The device must have audio *Bluetooth®* Wireless Technology capability (such as for stereo headphone *Bluetooth®* Wireless Technology). The device can play, but it will not be controlled by the audio system.
- To use iPod® features within the audio, use the cable provided upon purchasing an iPod® device.
- Skipping or improper operation may occur depending on the characteristics of your iPod®/iPhone® device.
- If your iPhone® is connected to both the *Bluetooth®* Wireless Technology and USB, the sound may not be properly played. In your iPhone®, select the Dock connector or *Bluetooth®* Wireless Technology to change the sound output (source).

(Continued)

(Continued)

- When connecting iPod® with the iPod® Power Cable, insert the connector to the multimedia socket completely. If not inserted completely, communications between iPod® and audio may be interrupted.
- When adjusting the sound effects of the iPod® and the audio system, the sound effects of both devices will overlap and might reduce or distort the quality of the sound.
- Deactivate (turn off) the equalizer function of an iPod® when adjusting the audio system's volume, and turn off the equalizer of the audio system when using the equalizer of an iPod®.
- When not using iPod® with vehicle audio, detach the iPod® cable from iPod®. Otherwise, iPod® may remain in accessory mode, and may not work properly.

■ CD Player (for RDS model) : AC210MDEE



■ CD Player : AC110MDGG, AC110MDGN, AC110MDGL



SYSTEM CONTROLLERS AND FUNCTIONS

* Display and settings may differ depending on the selected audio.

Audio Head Unit (for RDS model)



1. (EJECT)

- Ejects the disc.

2. RADIO

- Changes to FM/AM mode.
- Each time the key is pressed, the mode is changed in order of FM1 → FM2 → FMA → DAB1 → DAB2 → AM.



3. MEDIA

- Changes to CD, USB(iPod®), AUX, My Music, BT Audio mode.
- Each time the key is pressed, the mode is changed in order of CD, USB(iPod®), AUX, My Music, BT Audio.

4. PHONE (if equipped)

- Operates Phone Screen
- * When a phone is not connected, the connection screen is displayed.



5. PWR/VOL knob

-  Power Knob: Turns power On/Off by pressing the knob
-  Volume Knob: Sets volume by turning the knob left/right

6. SEEK, TRACK

- Radio Mode : Automatically searches for broadcast frequencies.
- CD, USB, iPod®, My Music modes
 - Shortly press the key (under 0.8 seconds): Moves to next or previous song (file)
 - Press and hold the key (over 0.8 seconds): Rewinds or fast-forwards the current song.

7. ~ (Preset)

- Radio Mode: Saves frequencies (channels) or receives saved frequencies (channels)
- CD, USB, iPod®, My Music mode
 -  : Repeat
 -  : Random
- In the Radio, Media, Setup, and Menu pop up screen, the number menu is selected.



8.

- Each time the button is shortly pressed (under 0.8 seconds), sets screen Off → Screen On → Screen Off

* Audio operation is maintained and only the screen will be turned Off. In the screen Off state, press any key to turn the screen On again.

9. **TA/SCAN**

- Radio Mode

- Shortly press the key (under 0.8seconds): TA On/Off- Press and hold the key (over 0.8seconds): Previews each broadcast for 5 seconds each.

- Media mode

- Press and hold the key (over 0.8seconds): Previews each song (file) for 10 seconds each.

* Press and holding the key again to continue listening to the current song (file).

10. **SETUP**

- Shortly press the key (under 0.8 seconds) : Moves to the Display, Sound, Phone, System setting modes
- Press and hold the key (over 0.8 seconds) : Move to the Time setting screen

11. **MENU**

Displays menus for the current mode.

* iPod® List : Move to parent category

12. ,

- CD MP3, USB mode : Folder Search

13. TUNE knob

- Radio mode : Changes frequency by turning the knob left/right
- CD, USB, iPod®, My Music mode: Searches .songs (files) by turning the knob left/right

* When the desired song is displayed, press the knob to play the song.

- Moves focus in all selection menus and selects menus

SYSTEM CONTROLLERS AND FUNCTIONS

*Display and settings may differ depending on the selected audio.

Audio Head Unit



1. (EJECT)

- Ejects the disc.

2.

- Changes to FM/AM mode.
- Each time the key is pressed, the mode is changed in order of FM1 → FM2 → AM.



3.

- Changes to CD, USB(iPod®), AUX, My Music, BT Audio mode.
- Each time the key is pressed, the mode is changed in order of CD, USB(iPod®), AUX, My Music, BT Audio.

4. (if equipped)

- Operates Phone Screen
- * When a phone is not connected, the connection screen is displayed.



5. PWR/VOL knob

-  Power Knob: Turns power On/Off by pressing the knob
-  Volume Knob: Sets volume by turning the knob left/right

6. ,

- Radio Mode : Automatically searches for broadcast frequencies.
- CD, USB, iPod®, My Music modes
 - Shortly press the key (under 0.8 seconds): Moves to next or previous song (file)
 - Press and hold the key (over 0.8 seconds): Rewinds or fast-forwards the current song.

7. ~ (Preset)

- Radio Mode: Saves frequencies (channels) or receives saved frequencies (channels)
- CD, USB, iPod®, My Music mode
 -  : Repeat
 -  : Random
- In the Radio, Media, Setup, and Menu pop up screen, the number menu is selected.



8. **DISP**

- Each time the button is shortly pressed (under 0.8 seconds), sets screen Off → Screen On → Screen Off
- * Audio operation is maintained and only the screen will be turned Off. In the screen Off state, press any key to turn the screen On again.

9. **SCAN**

- Radio Mode
 - Press the key (under 0.8 seconds): Previews each broadcast for 5 seconds each
- CD, USB, My Music mode
 - Press the key (under 0.8 seconds): Previews each song (file) for 10 seconds each
- * Press the key again to continue listening to the current song (file).

10. **SETUP**

- Shortly press the key (under 0.8 seconds) : Moves to the Display, Sound, Clock, Phone, System setting modes
- Press and hold the key (over 0.8 seconds) : Move to the Time setting screen

11. **MENU**

Displays menus for the current mode.

- * iPod® List : Move to parent category

12. **FOLDER**, **FOLDER**

- CD MP3, USB mode : Folder Search

13. **TUNE** knob

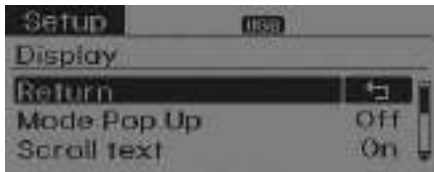
- Radio mode : Changes frequency by turning the knob left/right
- CD, USB, iPod®, My Music mode: Searches .songs (files) by turning the knob left/right
- * When the desired song is displayed, press the knob to play the song.
- Moves focus in all selection menus and selects menus

SETUP (FOR RDS MODEL)

- AC210MDEE

Display Settings

Press the **SETUP** key ▶ Select [Display] through **TUNE** knob or **1 RPT** key ▶ Select menu through



Mode Pop up

[Mode Pop up] ▶ Changes On selection mode

- During On state, press the **RADIO** or **MEDIA** key to display the mode change pop up screen.
- When the pop up screen is displayed, use the **TUNE** knob or keys **1** ~ **6** to select the desired mode.

Scroll text

[Scroll text] ▶ Set On / Off

- On : Maintains scroll
- Off : Scrolls only one (1) time.

Song Info

When playing an MP3 file, select the desired display info from 'Folder/File' or 'Album/Artist/Song'.



Sound Settings

Press the **SETUP** key ▶ Select [Sound] through **TUNE** knob or **2 RDM** key ▶ Select menu through **TUNE** knob

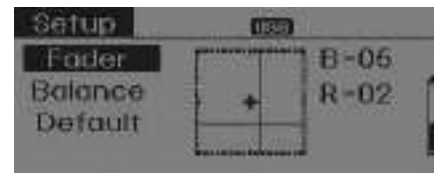
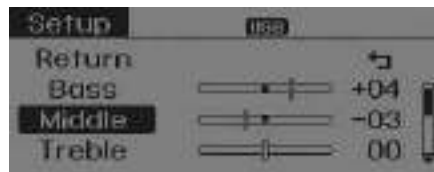


Audio Settings

This menu allows you to set the 'Bass, Middle, Treble' and the Sound Fader and Balance.

Select [Audio Settings] ▶ Select menu through **TUNE** knob ▶ Turn **TUNE** knob left/right to set

- Bass, Middle, Treble : Selects the sound tone.
 - Fader, Balance : Moves the sound fader and balance.
 - Default : Restores default settings.
- * Return : While adjusting values, re-pressing the **TUNE** knob will restore the parent menu.



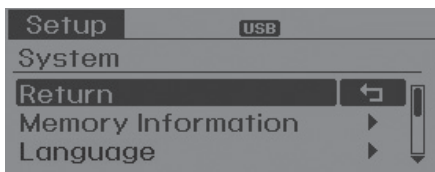
Speed Dependent Volume Control

This feature is used to automatically control the volume level according to the speed of the vehicle.

Select [Speed Dependent Vol.] ▶ Set in [On/Off] of **TUNE** knob

System Settings

Press the **SETUP** key ▶ Select [System] through tune knob or **5** key ▶ Select menu through **TUNE** knob

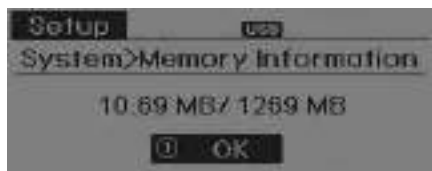


Memory Information (if equipped)

Displays currently used memory and total system memory.

Select [Memory Information] ▶ OK

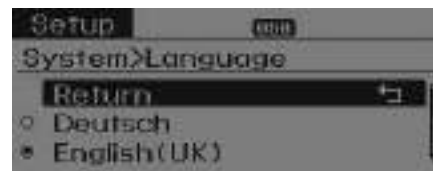
The currently used memory is displayed on the left side while the total system memory is displayed on the right side.



Language

This menu is used to set the display and voice recognition language.

Select [Language] ▶ Set through **TUNE** knob



* The system will reboot after the language is changed.

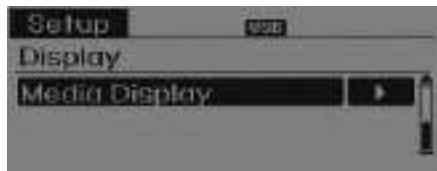
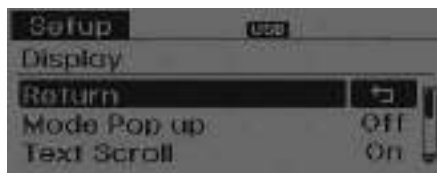
* Language support by region
- Deutsch, English(UK), Français, Italiano, Español, Nederlands, Svenska, Dansk, Русский, Polski, Türkçe

SETUP

- AC110MDGG, AC110MDGN, AC110MDGL

Display Settings

Press the **SETUP** key ▶ Select [Display] through **TUNE** knob or **1 RPT** key ▶ Select menu through **TUNE** knob



Mode Pop up

[Mode Pop up] ▶ Changes **On** selection mode

- During On state, press the **RADIO** or **MEDIA** key to display the mode change pop up screen.
- When the pop up screen is displayed, use the **TUNE** knob or keys **1** ~ **6** to select the desired mode.

Text Scroll

[Text Scroll] ▶ Set **On**/**Off**

- **On** : Maintains scroll
- **Off** : Scrolls only one (1) time.

Media Display

When playing an MP3 file, select the desired display info from 'Folder/File' or 'Album/Artist/Song'.



Sound Settings

Press the **SETUP** key ▶ Select [Sound] through **TUNE** knob or **2 RDM** key ▶ Select menu through **TUNE** knob

Sound Settings


Press the **SETUP** key ▶ Select [Sound] through **TUNE** knob or **2** key

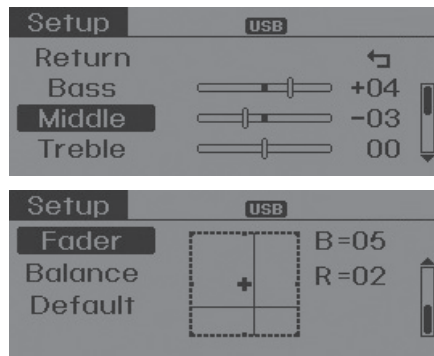


Sound Settings

This menu allows you to set the 'Bass, Middle, Treble' and the Sound Fader and Balance.

Select [Sound Settings] ▶ Select menu through  TUNE knob ▶ Turn  TUNE knob left/right to set

- Bass, Middle, Treble : Selects the sound tone.
- Fader, Balance : Moves the sound fader and balance.
- Default : Restores default settings.
- * Return : While adjusting values, re-pressing the  TUNE knob will restore the parent menu.



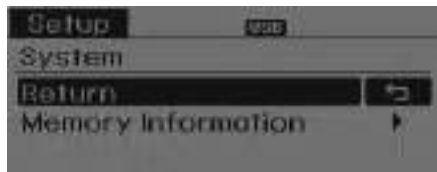
Speed Dependent Volume Control

This feature is used to automatically control the volume level according to the speed of the vehicle.

Select [Speed Dependent Vol.] ▶ Set in [On / Off] of  TUNE knob

System Settings

Press the **SETUP** key ▶ Select [System]

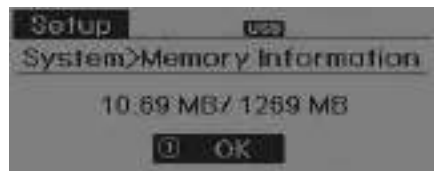


Memory Information (if equipped)

Displays currently used memory and total system memory.

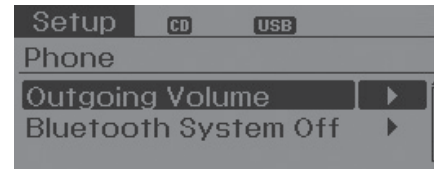
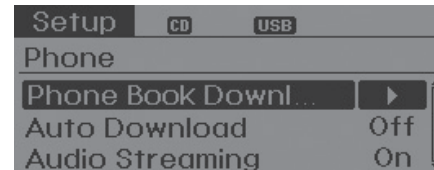
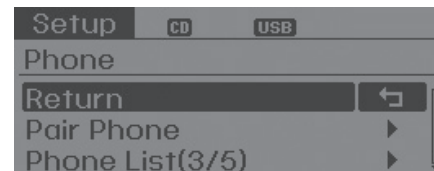
Select [Memory Information] ▶ OK

The currently used memory is displayed on the left side while the total system memory is displayed on the right side.

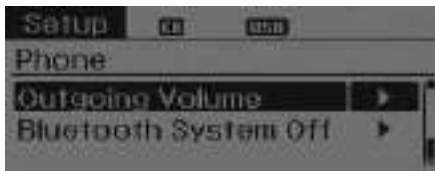
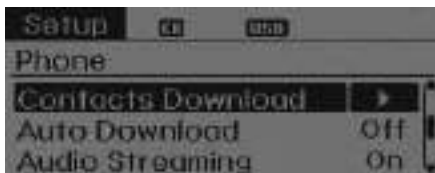
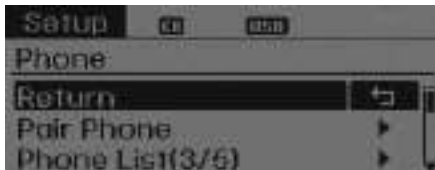


Phone Setup (if equipped)

Press the **SETUP** **CLOCK** key ▶ Select [Phone] (for RDS model)



Press the **SETUP** **CLOCK** key ▶ Select [Phone]



Pair Phone

NOTICE

To pair a **Bluetooth® Wireless Technology** enabled mobile phone, authentication and connection processes are first required. As a result, you cannot pair your mobile phone while driving the vehicle. First park your vehicle before use.

Select [Pair Phone] ▶ Set through
 ● TUNE knob

- ① Search for device names as displayed on your mobile phone and connect.
 - ② Input the passkey displayed on the screen. (Passkey : 0000)
- * The device name and passkey will be displayed on the screen for up to 3 minutes. If pairing is not completed within the 3 minutes, the mobile phone pairing process will automatically be canceled.

③ Pairing completion is displayed.

- * In some mobile phones, pairing will automatically be followed by connection.
- * It is possible to pair up to five Bluetooth® Wireless Technology enabled mobile phones.

Phone List

The names of up to 5 paired phones will be displayed.



A [▶] is displayed in front of the currently connected phone.

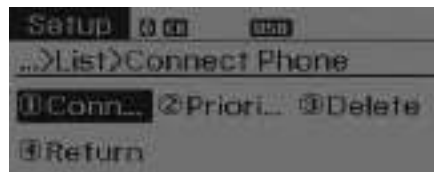
Select the desired name to setup the selected phone.

CAUTION

Do not use the cell phone or other peripherals (i.e. audio device) while driving. If not, it may cause an accident.

• Connecting a phone

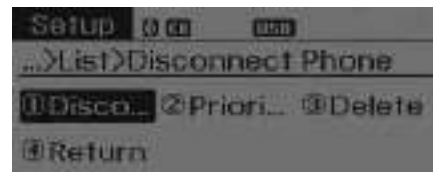
Select [Phone List]▶Select mobile phone through  TUNE knob▶Select [Connect Phone]



- ① Select a mobile phone that is not currently connected.
 - ② Connect the selected mobile phone.
 - ③ Connection completion is displayed.
- * If a phone is already connected, disconnect the currently connected phone and select a new phone to connect.

• Disconnecting a connected phone

Select [Phone List]▶Select mobile phone through  TUNE knob▶Select [Disconnect Phone]



- ① Select the currently connected mobile phone.
- ② Disconnect the selected mobile phone.
- ③ Disconnection completion is displayed.

- Changing connection sequence (Priority)

This is used to change the order (priority) of automatic connection for the paired mobile phones.

Select [Phone List]▶Select [Priority] through ● TUNE knob▶Select No. 1 Priority mobile phone

- ① Select [Priority].
- ② From the paired phones, select the phone desired for No.1 priority.
- ③ The changed priority sequence is displayed.

* Once the connection sequence (priority) is changed, the new no. 1 priority mobile phone will be connected.

-When the no. 1 priority cannot be connected: Automatically attempts to connect the most recently connected phone.

-Cases when the most recently connected phone cannot be connected: Attempts to connect in the order in which paired phones are listed.

-The connected phone will automatically be changed to No. 1 priority.

- Delete
Select [Phone List]▶Select mobile phone through ● TUNE knob▶Select [Delete]

- ① Select the desired mobile phone.
- ② Delete the selected mobile phone.
- ③ Deletion completion is displayed.

* When attempting to delete a currently connected phone, the phone is first disconnected.

NOTICE

- **When you delete a mobile phone, the mobile phone contacts will also be erased.**
- **For stable Bluetooth® Wireless Technology communication, delete the mobile phone from the audio and also delete the audio from your mobile phone.**

Phone book Download (for RDS model)

This feature is used to download phone book and call histories into the audio system.

Select [Phone book Download]▶Select through ● TUNE knob.

NOTICE

- **The download feature may not be supported in some mobile phones.**
- **If a different operation is performed while phone book is being downloaded, downloading will be discontinued. Phone book already downloaded will be saved.**
- **When downloading new phone book, delete all previously saved phone book before starting download.**


Auto Download

When connecting a mobile phone, it is possible to automatically download new Contacts and Call Histories.

Select [Auto Download] ▶ Set On / Off through 

Contacts Download

This feature is used to download contacts and call histories into the audio system.

Select [Contacts Download] ▶ Select through 

NOTICE

- The download feature may not be supported in some mobile phones.
- If a different operation is performed while Contacts are being downloaded, downloading will be discontinued. Contacts already downloaded will be saved.
- When downloading new Contacts, delete all previously saved Contacts before starting download.

Audio Streaming

Songs (files) saved in your *Bluetooth*[®] Wireless Technology enabled mobile phone can be played through the audio system.

Select [Audio Streaming] ▶ Set On / Off through 


NOTICE

The *Bluetooth*[®] Wireless Technology audio streaming feature may not be supported in some mobile phones.

Outgoing Volume


This is used to set the volume of your voice as heard by the other party while on a *Bluetooth*[®] Wireless Technology enabled handsfree call.

Select [Outgoing Volume] ▶ Set volume through 

* While on a call, the volume can be changed by using the  key.

Bluetooth® Wireless Technology System Off

This feature is used when you do not wish to use the *Bluetooth®* Wireless Technology system.

Select [Bluetooth System Off] ▶ Set through  TUNE knob

※ If a phone is already connected, disconnect the currently connected phone and turn the *Bluetooth®* Wireless Technology system off.

Using the Bluetooth® Wireless Technology System

To use *Bluetooth®* Wireless Technology when the system is currently off, follow these next steps.

- Turning On Bluetooth® Wireless Technology through the **PHONE** Key

Press the **PHONE** key ▶ Screen Guidance

※ Moves to the screen where Bluetooth® Wireless Technology functions can be used and displays guidance.

- Turning On Bluetooth® Wireless Technology through the **SETUP CLOCK** Key

Press the **SETUP CLOCK** key ▶ Select [Phone]

- ① A screen asking whether to turn on *Bluetooth®* Wireless Technology will be displayed.
 - ② On the screen, select **YES** to turn on *Bluetooth®* Wireless Technology and display guidance.
- ※ If the Bluetooth® Wireless Technology system is turned on, the system will automatically try to connect the most recently connected Bluetooth® Wireless Technology mobile phone.

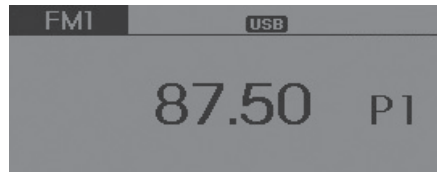
NOTICE

- *Bluetooth®* Wireless Technology connection may become intermittently disconnected in some mobile phones. Follow these next steps to try again.

- 1) Turn the *Bluetooth®* Wireless Technology function within the mobile phone ON/OFF and try to connect again.
- 2) Turn the mobile phone power ON/OFF and try to connect again.
- 3) Completely remove the mobile phone battery, reboot, and then try to connect again.
- 4) Reboot the audio system and try to connect again
- 5) Delete all paired devices in your mobile phone and the audio system and pair again for use.

RADIO (FOR RDS MODEL) : FM, AM

Changing RADIO mode



SEEK

Press the **SEEK** (up arrow) or **TRACK** (down arrow) key

- Shortly pressing the key (under 0.8 seconds): Changes the frequency.
- Pressing and holding the key (over 0.8 seconds): Automatically searches for the next frequency.

Preset SEEK

Press the **1** ~ **6** key

- Shortly pressing the key (under 0.8 seconds): Plays the frequency saved in the corresponding key.
- Pressing and holding the key (over 0.8 seconds): Pressing and holding the desired key from **1** ~ **6** will save the currently playing broadcast to the selected key and sound a BEEP.

SCAN

Press the **TA/SCAN** key

- Pressing and holding the key (over 0.8 seconds): The broadcast frequency increases and previews each broadcast for 5 seconds each. After scanning all frequencies, returns and plays the current broadcast frequency.

Selecting through manual search

Turn the **TUNE** knob left/right to adjust the frequency.

- AC210MDEE
 - FM : Changes by 50KHz
 - AM : Changes by 9khz

Traffic Announcement (TA)

Shortly pressing the **TA/SCAN** key (under 0.8 seconds): Set **On**/**Off** TA Traffic Announcement) mode.

MENU

Within **MENU** key are the A.Store (Auto Store) and Info functions.



AST (Auto Store)

Press the **MENU** key ▶ Set [**1** AST] through **TUNE** knob or **1 RPT** key. Select AST (Auto Store) to save frequencies with superior reception to presets **1** ~ **6**. If no frequencies are received, then the most recently received frequency will be broadcast.

* Saves only to the Preset memory **1** ~ **6** of FMA or AMA mode.

AF (Alternative Frequency)

Press the **MENU** key ▶ Set [**2** AF] through **TUNE** knob or **2 RDM** key. The Alternative Frequency option can be turned On/Off.

Region

Press the **MENU** key ▶ Set [**3** Region] through **TUNE** knob or **3** key.

The Region option can be turned On/Off.

News

Press the **MENU** key ▶ Set [**4** News] through **TUNE** knob or **4** key. The News option can be turned On/Off.

Info Volume

Info Volume refers to the sound volume upon receiving News or Traffic information.

The info volume can be controlled by turning the **VOL** knob left/right while a news or traffic broadcast is playing.

* AF, Region, and News are RDS Radio menus.

RADIO

Changing RADIO mode





SEEK

Press the ,  key

- Shortly pressing the key (under 0.8 seconds): Changes the frequency.
- Pressing and holding the key (over 0.8 seconds): Automatically searches for the next frequency.



Preset SEEK

Press the  ~  key


- Shortly pressing the key (under 0.8 seconds): Plays the frequency saved in the corresponding key.
- Pressing and holding the key (over 0.8 seconds): Pressing and holding the desired key from  ~  will save the currently playing broadcast to the selected key and sound a BEEP.

SCAN

Press the  key


- Shortly pressing the key (under 0.8 seconds): The broadcast frequency increases and previews each broadcast for 5 seconds each. After scanning all frequencies, returns and plays the current broadcast frequency.
- Pressing and holding the key (over 0.8 seconds): Previews the broadcasts saved in Preset  ~  for 5 seconds each.

Selecting through manual search

Turn the  TUNE knob left/right to adjust the frequency.



- AC110MDGG
 - FM : Changes by 100KHz
 - AM : Changes by 9KHz
- AC110MDGN
 - FM : Changes by 200KHz
 - AM : Changes by 10KHz
- AC110MDGL
 - FM : Changes by 100KHz
 - AM : Changes by 9KHz

MENU

Within  key are the A.Store (Auto Store) and Info functions.

AST (Auto Store)

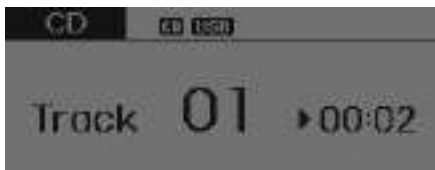
Press the  key ▶ Set []AST through  TUNE knob or  key.

Select AST (Auto Store) to save frequencies with superior reception to presets  ~ . If no frequencies are received, then the most recently received frequency will be broadcast.

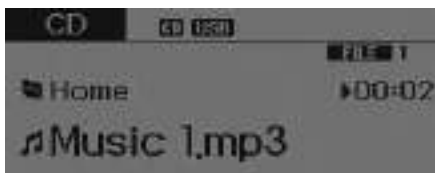
BASIC METHOD OF USE : AUDIO CD / MP3 CD / USB / IPOD® / MY MUSIC

Press the **MEDIA** key to change the mod mode in order of CD → USB(iPod®) → AUX → My Music → BT Audio.

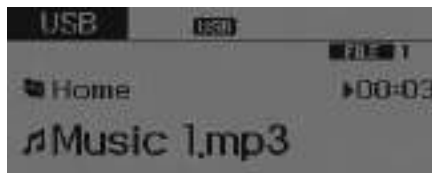
The folder/file name is displayed on the screen.



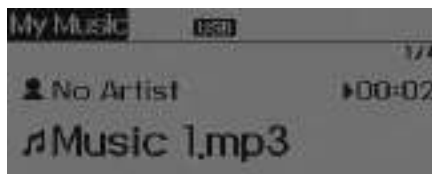
<Audio CD>



<CD MP3>



<USB>



<My Music>

- * The CD is automatically played when a CD is inserted.
- * The USB music is automatically played when a USB is connected.

Repeat

While song (file) is playing ▶ **1 RPT** (RPT) key

Audio CD, MP3 CD, USB, iPod®, My Music mode: RPT on screen

- To repeat one song (Shortly pressing the key (under 0.8 seconds)): Repeats the current song.

MP3 CD, USB mode: FLD.RPT on screen

- To repeat folder (pressing twice): repeats all files within the current folder.

* Press the **1 RPT** key again to turn off repeat.

Random

While song (file) is playing ▶ **2 RDM** (RDM) key

Audio CD, My Music mode: RDM on screen

- Random (Shortly pressing the key): Plays all songs in random order.

MP3 CD, USB mode: FLD.RDM on screen

- Folder Random (Shortly pressing the key): Plays all files within the current folder in random order.

MP3 CD, USB mode: RDM on screen

- Random (pressing twice): Plays all files in random order.

iPod® mode: RDM on screen

- Random (press the key) : Plays all files in random order.
- * Press the **2 RDM** key again to turn off random.

Changing Song/File

While song (file) is playing ▶ **TRACK** key

- Shortly pressing the key: Plays the current song from the beginning.
- * If the **TRACK** key is pressed again within 1 second, the previous song is played.
- Pressing and holding the key (over 0.8 seconds): Rewinds the song.

While song (file) is playing ▶ **SEEK** key

- Shortly pressing the key: Plays the next song.
- Pressing and holding the key (over 0.8 seconds): Fast forwards the song.

Scan (for RDS model)

While song (file) is playing ▶ **TA/SCAN** key

- Pressing and holding the key (over 0.8 seconds) : Scans all songs for 10 seconds starting from the next song.
- * Pressing and holding the **TA/SCAN** key again to turn off.

Scan

While song (file) is playing ▶ **SCAN** key

- Shortly pressing the key (under 0.8 seconds) : Scans all songs from the next song for 10 seconds each.
- * Press the **SCAN** key again to turn off.
- * The SCAN function is not supported in iPod® mode.

Folder Search : MP3 CD, USB Mode

While file is playing ▶ **FOLDER** / **FOLDER** (Folder Up) key

- Searches the next folder.

While file is playing ▶ **FOLDER** / **FOLDER** (Folder Down) key

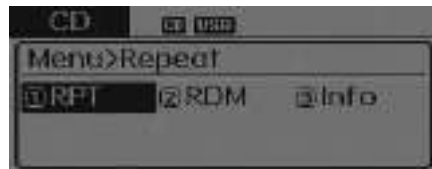
- Searches the parent folder.
- * If a folder is selected by pressing the **TUNE** knob, the first file within the selected folder will be played.

Searching Songs (File)

- Turning **TUNE** knob : Searches for songs (files)
- Pressing **TUNE** knob : Plays selected song (file).

MENU : Audio CD

Press the CD MP3 mode **MENU** key to set the Repeat, Random, Information features.



Repeat

Press the **MENU** key ▶ Set [**1**RPT] through the **TUNE** knob or **1** RPT key to repeat the current song.

- * Press RPT again to turn off.

Random

Press the **MENU** key ▶ Set [**2**RDM] through the **TUNE** knob or **2** RDM key to randomly play songs within the current folder.

- * Press RDM again to turn off.

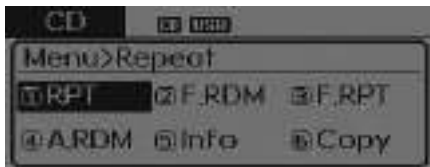
Information

Press the **MENU** key ▶ Set [**3**Info] through the **TUNE** knob or **3** key to display information of the current song.

- * Press the **MENU** key to turn off info display.

MENU : MP3 CD / USB

Press the CD MP3 mode **MENU** key to set the Repeat, Folder Random, Folder Repeat, All Random, Information, and Copy features.



Repeat

Press the **MENU** key ▶ Set [**1**RPT] through the **TUNE** knob or **1 RPT** key to repeat the current song.

* Press RPT again to turn off.

Folder Random

Press the **MENU** key ▶ Set [**2**F.RDM] through the **TUNE** knob or **2 RDM** key to randomly play songs within the current folder.

* Press F.RDM again to turn off.

Folder Repeat

Press the **MENU** key ▶ Set [**3**F.RPT] through the **TUNE** knob or **3** key to repeat songs within the current folder.

* Press F.RPT again to turn off.

All Random

Press the **MENU** key ▶ Set [**4**A.RDM] through the **TUNE** knob or **4** key to randomly play all songs within the CD.

* Press A.RDM again to turn off.

Information

Press the **MENU** key ▶ Set [**5**Info] through the **TUNE** knob or **5** key to display information of the current song.

* Press the **MENU** key to turn off info display.

Copy

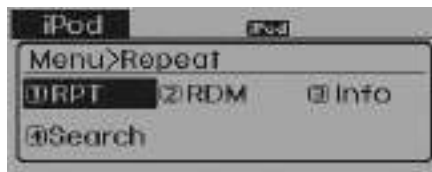
Press the **MENU** key ▶ Set [**6**Copy] through the **TUNE** knob or **6** key.

This is used to copy the current song into My Music. You can play the copied Music in My Music mode.

- * If another key is pressed while copying is in progress, a pop up asking you whether to cancel copying is displayed.
- * If another media is connected or inserted (USB, CD, iPod®, AUX) while copying is in progress, copying is canceled.
- * Music will not be played while copying is in progress.

MENU : iPod®

In iPod® mode, press the **MENU** key to set the Repeat, Random, Information and Search features.



Repeat

Press the **MENU** key ▶ Set [**1**RPT] through the **TUNE** knob or **1 RPT** key to repeat the current song.

- * Press RPT again to turn repeat off.

Random

Press the **MENU** key ▶ Set [**2**RDM] through the **TUNE** knob or **2 RDM** key.

Plays all songs within the currently playing category in random order.

- * Press RDM again to turn off.

Information

Press the **MENU** key ▶ Set [**3**Info] through the **TUNE** knob or **3** key.

Displays information of the current song.

- * Press the **MENU** key to turn off info display.

Search

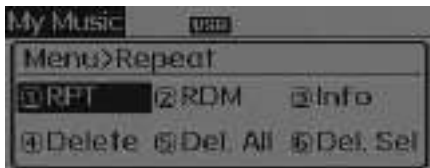
Press the **MENU** key ▶ Set [**4**Search] through the **TUNE** knob or **4** key.

Displays iPod® category list.

- * Searching iPod® category is **MENU** key pressed, move to parent category.

MENU : My Music Mode (if equipped)

In My Music mode, press the **MENU** key to set the Repeat, Random, Information, Delete, Delete All, and Delete Selection features.



Repeat

Press the **MENU** key ▶ Set [**1**RPT] through the **TUNE** knob or **1 RPT** key.

Repeats the currently playing song.

* Press RPT again to turn repeat off.

Random

Press the **MENU** key ▶ Set [**2**RDM] through the **TUNE** knob or **2 RDM** key.

Plays all songs in random order.

* Press RDM again to turn random off.

Information

Press the **MENU** key ▶ Set [**3**Info] through the **TUNE** knob or **3** key.

Displays information of the current song.

* Press the **MENU** key to turn off info display.

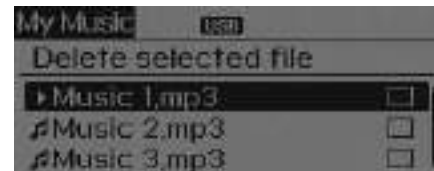
Delete

Press the **MENU** key ▶ Set [**4**Delete] through the **TUNE** knob or **4** key.

Deletes currently playing file

In the play screen, pressing delete will delete the currently playing song.

Deletes file from list



- ① Select the file you wish to delete by using the **TUNE** knob.
- ② Press the **MENU** key and select the delete menu to delete the selected file.

Delete All

Press the **MENU** key ▶ Set [5 Del.All] through the **TUNE** knob or **5** key.

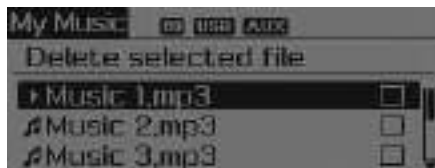
Deletes all songs of My Music.

Delete Selection

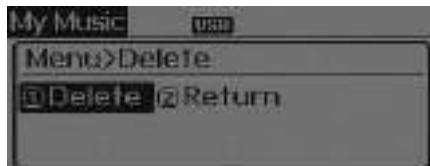
Press the **MENU** key ▶ Set [6 Del.Sel] through the **TUNE** knob or **6** key.

Songs within My Music are selected and deleted.

① Select the songs you wish to delete from the list.



② After selecting, press the **MENU** key and select the delete menu.



i Information - Using the My Music

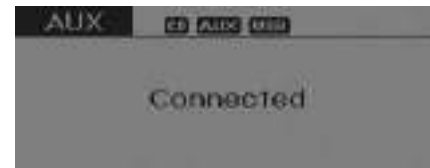
- Even if memory is available, a maximum of 6,000 songs can be stored.
- The same song can be copied up to 1,000 times.
- Memory info can be checked in the System menu of Setup.

AUX

AUX is used to play external MEDIA currently connected with the AUX terminal.

AUX mode will automatically start when an external device is connected with the AUX terminal.

If an external device is connected, you can also press the **MEDIA** key to change to AUX mode.



* AUX mode cannot be started unless there is an external device connected to the AUX terminal.

i Information - Using the AUX

Fully insert the AUX cable into the AUX terminal for use.

Bluetooth® Wireless Technology AUDIO (if equipped)

What is Bluetooth® Wireless Technology?

Bluetooth® Wireless Technology allows devices to be connected in a short distance, including hands-free devices, stereo headsets, wireless remote controllers, etc. For more information, visit the Bluetooth® Wireless Technology website at www.Bluetooth.com

Before using Bluetooth® Wireless Technology audio features

- Bluetooth® Wireless Technology audio may not be supported depending on the compatibility of your Bluetooth® Wireless Technology mobile phone.
- In order to use Bluetooth® Wireless Technology audio, you must first pair and connect the Bluetooth® Wireless Technology mobile phone.


- The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth® SIG, Inc. and any use of such marks is under license. Other trademarks and trade names are those of their respective owners. A Bluetooth® enabled cell phone is required to use Bluetooth® Wireless Technology
- Bluetooth® Wireless Technology audio can be used only when the [Audio Streaming] of Phone is turned On.
- * Setting Bluetooth® Wireless Technology Audio Streaming : Press the **SETUP** key ▶ Select [Phone] through the tune knob ▶ Select [Audio Streaming] through the **TUNE** knob ▶ Set **On**/**Off**

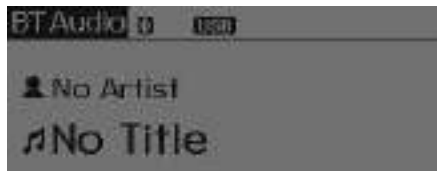
Starting Bluetooth® Wireless Technology Audio

- Press the **MEDIA** key to change the mode in order of CD → USB → AUX → My Music → BT Audio.
- If BT Audio is selected, Bluetooth® Wireless Technology audio will start playing.
- * Audio may not automatically start playing in some mobile phones.

Using the *Bluetooth*[®] Wireless Technology audio features

- Play / Pause

Press the  TUNE knob to play and pause the current song.



* The title / artist info may not be supported in some mobile phone. When it is not supported, no title / no artist will be displayed.

- Previous / Next song

Press  of  to play previous or next song.

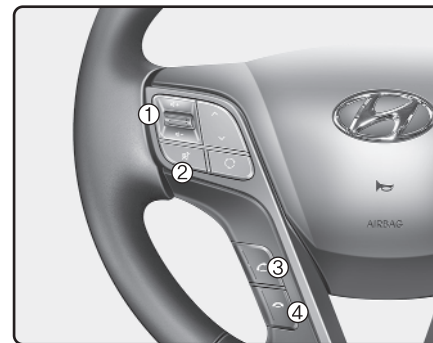
* The previous song / next song / play / pause functions may not be supported in some mobile phones.



PHONE (if equipped)



Before using the *Bluetooth*[®] Wireless Technology phone features


- In order to use *Bluetooth*[®] Wireless Technology phone, you must first pair and connect the *Bluetooth*[®] Wireless Technology mobile phone.
- If the mobile phone is not paired or connected, it is not possible to enter Phone mode. Once a phone is paired or connected, the guidance screen will be displayed.
- If Priority is set upon vehicle ignition (IGN/ACC ON), the *Bluetooth*[®] Wireless Technology phone will be automatically connected. Even if you are outside, the *Bluetooth*[®] Wireless Technology phone will be automatically connected once you are in the vicinity of the vehicle. If you do not want automatic *Bluetooth*[®] Wireless Technology phone connection, set the *Bluetooth*[®] Wireless Technology power to OFF.

Making a call using the Steering wheel remote controller



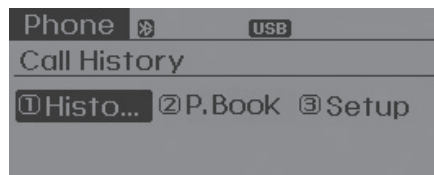
1. VOLUME button : Raises or lowers speaker volume.
2. MUTE button : Mute the microphone during a call.
3.  button : Places and transfers calls.
4.  button : Ends calls or cancels functions.

- Check call history and making call
 - ① Shortly press (under 0.8 seconds) the  key on the steering remote controller.
 - ② The call history list will be displayed on the screen.
 - ③ Press the  key again to connect a call to the selected number.

- Redialing the most recently called number
 - ① Press and hold (over 0.8 seconds) the  key on the steering remote controller.
 - ② The most recently called number is redialed.

Phone MENU (for RDS model)

Press the **PHONE** key to display three menus (Call History, Phone Book, Phone Setup).



Call history

Press the **PHONE** key ▶ Set [① History] through the  TUNE knob or **1 RPT** key.

The call history is displayed and can be used to select a number and make a call.

If call history does not exist, a screen asking whether to download call history is displayed. (The download feature may not be supported in some mobile phones)

Phone Book

Press the **PHONE** key ▶ Set [② P. Book] through the  TUNE knob or **2 RDM** key.

The phone book is displayed and can be used to select a number and make a call.

* If more than one number is saved to one contact, then a screen showing the mobile phone number, Home and office number is displayed. Select the desired number to make the call.

* If phone book do not exist, a screen asking whether to download phone book is displayed. (The download feature may not be supported in some mobile phones)

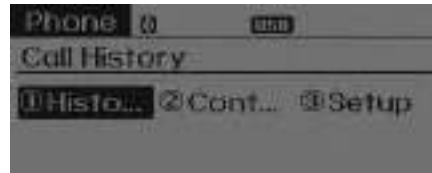
Phone Setup

Press the **PHONE** key ▶ Set [③ Setup] through the **TUNE** knob or **3** key.

The *Bluetooth*® Wireless Technology mobile phone setup screen is displayed. For more information, refer to “Phone Setup”.

Phone MENU

Press the **PHONE** key to display three menus (Call History, Contacts, Phone Setup).



Call history

Press the **PHONE** key ▶ Set [① History] through the **TUNE** knob or **1 RPT** key.

The call history is displayed and can be used to select a number and make a call.

If call history does not exist, a screen asking whether to download call history is displayed. (The download feature may not be supported in some mobile phones)

Contacts

Press the **PHONE** key ▶ Set [② Contacts] through the **TUNE** knob or **2 RDM** key.

The Contacts are displayed and can be used to select a number and make a call.

- * If more than one number is saved to one contact, then a screen showing the mobile phone number, Home and office number is displayed. Select the desired number to make the call.
- * If Contacts do not exist, a screen asking whether to download Contacts is displayed. (The download feature may not be supported in some mobile phones)

Phone Setup

Press the **PHONE** key ▶ Set [③ Setup] through the **TUNE** knob or **3** key.

The *Bluetooth*® Wireless Technology mobile phone setup screen is displayed. For more information, refer to “Phone Setup”.

i Information

- Using the *Bluetooth*® Wireless Technology CELLULAR PHONE

- Do not use a cellular phone or perform *Bluetooth*® Wireless Technology settings (e.g. pairing a phone) while driving.
- Some *Bluetooth*® Wireless Technology -enabled phones may not be recognized by the system or fully compatible with the system.
- Before using *Bluetooth*® Wireless Technology related features of the audio system, refer your phone's User's Manual for phone-side *Bluetooth*® Wireless Technology operations.
- The phone must be paired to the audio system to use *Bluetooth*® Wireless Technology related features.
- You will not be able to use the hands-free feature when your phone (in the vehicle) is outside of the cellular service area (e.g. in a tunnel, in a underground, in a mountainous area, etc.).

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- If the cellular phone signal is poor or the vehicles interior noise is too loud, it may be difficult to hear the other person's voice during a call.
- Do not place the phone near or inside metallic objects, otherwise communications with *Bluetooth*® Wireless Technology system or cellular service stations can be disturbed.
- While a phone is connected through *Bluetooth*® Wireless Technology your phone may discharge quicker than usual for additional *Bluetooth*® Wireless Technology-related operations.
- Some cellular phones or other devices may cause interference noise or malfunction to audio system. In this case, store the device in a different location may resolve the condition.
- Phone contact names should be saved in English or they may not be displayed correctly.

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- If Priority is set upon vehicle ignition (IGN/ACC ON), the *Bluetooth*® Wireless Technology phone will be automatically connected.

Even if you are outside, the *Bluetooth*® Wireless Technology phone will be automatically connected once you are in the vicinity of the vehicle.

If you do not want automatic *Bluetooth*® Wireless Technology connection, turn the *Bluetooth*® Wireless Technology feature off.

- The hands-free call volume and quality may differ depending on the mobile phone type.
- *Bluetooth*® Wireless Technology features can be used only when the mobile phone has been paired and connected with the device. For more information on pairing and connecting *Bluetooth*® Wireless Technology enabled mobile phones, refer to the "Phone Setup" section.

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- When a *Bluetooth*® Wireless Technology mobile phone is connected, a (📶) icon will appear at the top of the screen. If a (📶) icon is not displayed, this indicates that a *Bluetooth*® Wireless Technology enabled device has not been connected. You must connect the device before use. For more information on *Bluetooth*® Wireless Technology mobile phones, refer to the "Phone Setup" section.
- Pairing and connecting a *Bluetooth*® Wireless Technology enabled mobile phone will work only when the *Bluetooth*® Wireless Technology option within your mobile phone has been turned on. (Methods of turning on the *Bluetooth*® Wireless Technology enabled feature may differ depending on the mobile phone.)

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- In some mobile phones, starting the ignition while talking through *Bluetooth*® Wireless Technology enabled handsfree call will result in the call becoming disconnected. (Switch the call back to your mobile phone when starting the ignition.)
- Some features may not be supported in some *Bluetooth*® Wireless Technology mobile phone and devices.
- *Bluetooth*® Wireless Technology enabled operation may be unstable depending on the communication state.
- Placing the audio system within an electromagnetic environment may result in noise interference.

■ RADIO, SET UP, VOLUME CONTROL : AM210MDEE, AMB00MDGL, AMB00MDGN, AMB00MDGG



RADIO, SET UP, VOLUME CONTROL



1. **FM/AM** FM/AM Button
 - Each press of the **FM/AM** button will change the radio mode in the following order.
 - FM1 → FM2 → AM
2. **BSM** BSM (Best Station Memory) Button
 - Press and hold the **BSM** button to listen to the presets saved in FM BAND FM1, FM2, and AM BAND AM for 5 seconds each.
 - Shortly press the **BSM** button to automatically save frequencies with superior reception in presets (**1 REW** ~ **6 INFO**).

3. **FLDR** / **FLDR** Broadcast Manual Search (FLDR) Button
 - As button used to search frequencies manually, a press of the SEEK STEP will change the frequency. Pressing and holding the button will continue changing the frequency. Releasing the button will stop the search at the current frequency.
 - **FLDR** : Searches frequencies higher than current frequency
 - **FLDR** : Searches frequencies lower than current frequency

4. **POWER/VOL** /Sound Setting Knob
 - Press the **POWER** Knob to turn on the audio. While the audio is operating, press the **POWER** Knob to turn the power off. Turn the **POWER** Knob clockwise to increase the volume and counter-clockwise to decrease the volume.

CAUTION

Do not turn up the volume to the level that it covers the surrounding traffic noises. If not, it may cause an accident.



5. **TRACK / SEEK** Button

- As buttons used to automatically search broadcasts, pressing the button will automatically search and stop at a frequency with superior reception.
- **TRACK** : Searches frequencies higher than current frequency
- **SEEK** : Searches frequencies lower than current frequency



6. **SEL** Button

- Each press of the button will change the sound and language settings in the following order.
 - Bass → Middle → Treble → Balance → Fader → EQ → Beep → Language

BASS Control

- Turn the **VOLUME** Knob clockwise to increase the bass and counter-clockwise to decrease the bass.

MIDDLE Control

- Turn the **VOLUME** Knob clockwise to increase the middle and counter-clockwise to decrease the middle.

TREBLE Control

- Turn the **VOLUME** Knob clockwise to increase the treble and counter-clockwise to decrease the treble.

BALANCE Control

- Turn the **VOLUME** Knob clockwise to increase the right-side speaker volume and counter-clockwise to increase the left-side speaker volume.

FADER Control

- Tune the **VOLUME** Knob clockwise to increase the front-side speaker volume and counter-clockwise to increase the rear-side speaker volume


EQ(EQUALIZER) Control

- Turn the **VOLUME** Knob clockwise/counter-clockwise to select the desired EQ.
EQ settings are as shown below.
 - Cls(Classic) → Pop → Rock → Jazz → off

BEEP Control

- Turn the  VOLUME Knob clockwise/counter-clockwise to the BEEP sound ON/OFF.

LANGUAGE (Only AM210MDEE)



- Turn the  VOLUME Knob clockwise/counter-clockwise to the select the desired Language
Language setting are as shown below
- English → Póññèè → Türkçe



7. Button

- Press the  button to change to RADIO/USB/AUX/iPod® modes.

8. ~ Button (Preset)

- Select the preset button ( ~ ) to which you wish to save the selected frequency. Press and hold the preset button. The frequency will be saved to the preset button to a sound of a beeXp. The saved frequency number will be displayed on the LCD DISPLAY.

Information

- Using USB device

- When using the external USB device, make sure to keep the device disconnected and connect only some time after turning on the vehicle ignition. The USB device may be damaged if the USB device already connected when the ignition is turned on. (A USB device is not an electric automotive part.)
- The external USB device may not operate if the USB device already connected when vehicle ignition is turned on or off.
- The device will not operate when playing a format which is not MP3 or WMA file formats.
- Be cautious of static electricity when connecting/disconnecting the external USB device.
- Encoded MP3 Players will not be recognized when connected as the external device.

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- When connecting an external USB device, the device may not be properly recognize the USB when the USB is in some states.
- When formatting the external USB device, the device may not be properly recognize a Byte/Sector selection other than 512Byte or 2048Byte.
- The device will only recognize USB devices formatted in FAT 12/16/32.
- Some USB devices may not operate properly because of compatibility issues. Verify that the external device is supported by the device before starting use.
- Avoid contact between the USB connector with bodily parts and foreign substances.
- Repeatedly connecting/disconnecting the USB in a short period of time may cause damage to the device.
- When disconnecting the USB, an abnormal sound may occur occasionally.

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- Abruptly disconnecting the external USB device while the USB is operating may cause the device to become damaged or function abnormally. - Make sure to disconnect the USB device only after the audio power is turned off or when the audio is operating in a different mode.
- The amount of time required to recognize the external USB device may differ depending on the type, size, or file formats stored on the USB. Such differences in the required time are not indications of malfunction.
- The song name (ID3Tag) or command icons (RPT/RDM) may take time to be displayed on the LCD DISPLAY depending the complexity of the USB memory/folder structure.
- Please wait the period of time required to recognize the device. The device supports only USB devices used to play music files.

(Continued)

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- Do not use the USB I/F to charge batteries or USB accessories which generate heat. Such acts may lead to deteriorated performance or damage to the device.
- The device may not recognize the USB device if separately purchased USB hubs and extension cables are being used. Connect the USB directly to the multimedia terminal of the vehicle.
- In the case of high capacity USB devices, there are instances where the logical drives are partitioned for user convenience. - In this case, only the USB music in the top-level logical drive will be possible to play.
When using partitioned drives, save the songs desired to play on the device only in the top-level logical drive. In addition, certain UBS devices are configured with a separate drive used to install application programs and songs from such drives may not be possible to play for the reasons as described above.

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- The device may not support normal operation if MP3 Players, cellular phones, digital cameras, or other electronic devices (USB devices not recognized as portable disk drives) are connected to the device.
- This product does not guarantee proper operation of only standard (METAL COVER TYPE) USB MEMORY.
- The device may not support normal operation when using formats such as HDD Type, CF, or SD Memory.
- The device will not support files locked by DRM (Digital Rights Management).
- This product does not recognize SD Type USB MEMORY STICK, CF Type USB MEMORY STICK and other USB MEMORY STICKS connected to a different Adaptor.

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- This product does not guarantee proper operation of USB HDD or USB MEMORY with defective connection caused by vehicle vibrations. USB memory products used as key chains and mobile phone accessories (i-stick type) may cause damage to the USB Jack. Refrain from using such products.
- USB CONNECTOR PIN wear and tear can lead to inferior USB signal delivery with the SET.

USING USB/AUX



1. **MODE** USB Selection Button
 - While playing a different mode, press the **MODE** button to convert to USB/AUX mode. Connecting a USB/AUX to the audio will automatically convert to USB/AUX mode even if another mode is playing and automatically play the songs within the USB/AUX.
2. **TRACK** / **SEEK** Button
 - While playing USB, press the **TRACK** button to play the beginning of the next song. Press the **SEEK** button to return to the beginning of the current song. Press the button again to play the beginning of the previous song.

3. **SEL** Finding and Playing File Button

- While USB is playing, press and hold the **SEL** button for over 1 seconds to enter FILE BROWER MODE and search for desired files. After entering FILE BROWSER MODE, turn the **VOLUME** Knob left/right to find the desired folder. After finding the folder, press the **SEL** button to select the folder. Turn the **VOLUME** Knob left/right to find the desired song and press the **SEL** button to play.

4. **3 RPT** RPT/FOLDER RPT Button

- While music is playing, shortly press the **3 RPT** button to repeat the currently playing song. (RPT function)
Press and hold the RTP button to sequentially repeat all songs within the current folder. (FOLDER RPT, however, music files in the USB must be saved in folder format.)

5. **4 RDM** RDM/FOLDER RDM Button

- While music is playing, shortly press the **4 RDM** button to randomly play the songs in the current folder. (RDM)
While music is playing, press and hold the **4 RDM** button to randomly play the songs in the current folder. (FOLDER RDM, however, music files in the USB must be saved in folder format.)

6. **5 SCR** SCROLL (SCR) Button

- Press the **5 SCR** button to turn ON/OFF the scroll function which scrolls the file name of the currently playing song on the LCD from right to left.





7. **6 INFO** View Music Info (INFO) Button

- Each time the **6 INFO** button is pressed, the info on the currently playing song will be displayed in the following order.
- FILE NAME → TITLE → ARTIST
→ ALBUM → DIR







8. **BSM** SCAN Button (BSM)

- While music is playing, shortly press the **BSM** button to scan each song within the USB for 10 seconds in sequential order. (SCN)
Press and hold the **BSM** button to scan each song within the current folder for 10 seconds in sequential order. (FOLDER SCN, however, music files in the USB must be saved in folder format.)

9.  / 
• If there are more than 2 folders in the USB, pressing the  /  button will move to the previous or next folder.

If there are no folders in the USB, then pressing the button will move up/down within the folder in 10 file increments.

10.  /  FF/REW Button

- While a USB is operating, press and hold the  button to fast-forward the song. When fast-forward is complete, the next song will properly play from the beginning even if you continue holding the button. Press and hold the  button to rewind the song. When rewind is complete, the current song will properly play from the beginning even if you continue holding the button. Shortly pressing the buttons will not operate the  / .






Information

- Using the iPod® device

- The iPod® device will charge by connecting an iPod® connector cable to the iPod® in ACC ON state.
- When connecting with an iPod® cable, insert the JACK all the way in the terminal to prevent communication interference.
- The song name (ID3Tag) or command icons (RPT/RDM) may take time to be displayed depending on the iPod® model and model software version. This is not a sign of malfunction. Please wait.
- iPod® Shuffle device does not work.

USING iPod®



1.  iPod® Selection Button
 - While playing a different mode, press the  button to convert to iPod® mode. Connecting an iPod® to the audio will automatically convert to iPod® mode even if another mode is playing and automatically play the songs within the iPod®.
2.  /  Button
 - While playing music, press the  button to play the beginning of the next song.

Press the **SEEK** button to return to the beginning of the current song. Press the button again to play the beginning of the previous song.

3. **SEL** Finding and Playing File (SEL) Button

- While iPod® is playing, press and hold the **SEL** button for over 1 seconds to enter CATEGORY MODE and search for desired files. After entering CATEGORY MODE, turn the **VOLUME** Knob left/right to find the desired category.

Category will be displayed in the following order.

- PLAYLISTS → ARTISTS → ALBUMS → GENRES → SONGS → COMPOSERS → AUDIO-BOOKS → PODCASTS

After finding the category, press the **SEL** button to select the category.

Turn the **VOLUME** Knob left/right to find the desired song and press the **SEL** button to play.

4. **3 RPT** REPEAT (RPT) Button

- While music is playing, press the **3 RPT** button to repeat the currently playing song.

5. **4 RDM** RANDOM PLAY (RDM) Button

- While music is playing, press the **4 RDM** button to randomly play the songs.

6. **5 SCR** SCROLL (SCR) Button

- Displays the file name of the currently playing song on the LCD. Here, the **5 SCR** button turns the file name SCROLL ON/OFF.

7. **6 INFO** View Music Info (INFO) Button

- Each time the **6 INFO** button is pressed, the info on the currently playing song will be displayed in order of FILE → ALBUM → ARTIST → TITLE.



8. **1 REW / 2 FF** Button

- While an iPod® is operating, press and hold the **2 FF** button to fast-forward the song. When fast-forward is complete, the next song will properly play from the beginning even if you continue holding the button. Press and hold the **1 REW** button to rewind the song. When rewind is complete, the current song will properly play from the beginning even if you continue holding the button.

■ **CD PLAYER (FOR RDS MODEL) : AC210MDEE (FOR TURKEY)**



SYSTEM CONTROLLERS AND FUNCTIONS

* Display and settings may differ depending on the selected audio.

Audio Head Unit (for RDS model)



1. (EJECT)

- Ejects the disc.

2.

- Changes to FM/AM mode.
- Each time the key is pressed, the mode is changed in order of FM1 → FM2 → FMA → DAB1 → DAB2 → AM.



3.

- Changes to CD, USB(iPod®), AUX, My Music, BT Audio mode.
- Each time the key is pressed, the mode is changed in order of CD, USB(iPod®), AUX, My Music, BT Audio.

4. (if equipped)

- Operates Phone Screen
- * When a phone is not connected, the connection screen is displayed.



5. PWR/VOL knob

-  Power Knob: Turns power On/Off by pressing the knob
-  Volume Knob: Sets volume by turning the knob left/right

6. ,

- Radio Mode : Automatically searches for broadcast frequencies.
- CD, USB, iPod®, My Music modes
 - Shortly press the key (under 0.8 seconds): Moves to next or previous song (file)
 - Press and hold the key (over 0.8 seconds): Rewinds or fast-forwards the current song.

7. ~ (Preset)

- Radio Mode: Saves frequencies (channels) or receives saved frequencies (channels)
- CD, USB, iPod®, My Music mode
 -  : Repeat
 -  : Random
- In the Radio, Media, Setup, and Menu pop up screen, the number menu is selected.



8.

- Each time the button is shortly pressed (under 0.8 seconds), sets screen Off → Screen On → Screen Off

* Audio operation is maintained and only the screen will be turned Off. In the screen Off state, press any key to turn the screen On again.

9. **TA/SCAN**

• Radio Mode

- Shortly press the key (under 0.8seconds): TA On/Off- Press and hold the key (over 0.8seconds): Previews each broadcast for 5 seconds each.

• Media mode

- Press and hold the key (over 0.8seconds): Previews each song (file) for 10 seconds each.

* Press and holding the key again to continue listening to the current song (file).

10. **SETUP**

- Shortly press the key (under 0.8 seconds) : Moves to the Display, Sound, Phone, System setting modes
- Press and hold the key (over 0.8 seconds) : Move to the Time setting screen

11. **MENU**

Displays menus for the current mode.

* iPod® List : Move to parent category

12. ,

- CD MP3, USB mode : Folder Search

13. TUNE knob

- Radio mode : Changes frequency by turning the knob left/right
- CD, USB, iPod®, My Music mode: Searches .songs (files) by turning the knob left/right

* When the desired song is displayed, press the knob to play the song.

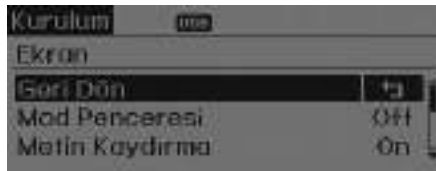
- Moves focus in all selection menus and selects menus

SETUP (for RDS model)

- AC210MDEE

Display Settings

Press the **SETUP** key ▶ Select [Display] through **TUNE** knob or **1 RPT** key ▶ Select menu through



Mode Pop up

[Mode Pop up] ▶ Changes **On** selection mode

- During On state, press the **RADIO** or **MEDIA** key to display the mode change pop up screen.
- When the pop up screen is displayed, use the **TUNE** knob or keys **1** ~ **6** to select the desired mode.

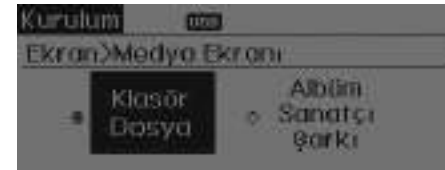
Scroll text

[Scroll text] ▶ Set **On**/**Off**

- **On** : Maintains scroll
- **Off** : Scrolls only one (1) time.

Song Info

When playing an MP3 file, select the desired display info from 'Folder/File' or 'Album/Artist/Song'.



Sound Settings

Press the **SETUP** key ▶ Select [Sound] through **TUNE** knob or **2 RDM** key ▶ Select menu through **TUNE** knob



Audio Settings

This menu allows you to set the 'Bass, Middle, Treble' and the Sound Fader and Balance.

Select [Audio Settings] ▶ Select menu through **TUNE** knob ▶ Turn **TUNE** knob left/right to set

- Bass, Middle, Treble : Selects the sound tone.
- Fader, Balance : Moves the sound fader and balance.
- Default : Restores default settings.
- * Return : While adjusting values, re-pressing the **TUNE** knob will restore the parent menu.



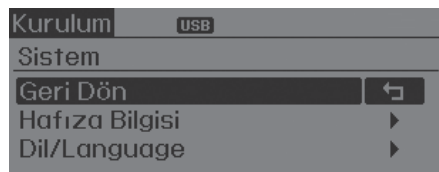
Speed Dependent Volume Control

This feature is used to automatically control the volume level according to the speed of the vehicle.

Select [Speed Dependent Vol.] ▶ Set in [On/Off] of **TUNE** knob

System Settings

Press the **SETUP** key ▶ Select [System] through tune knob or **5** key ▶ Select menu through **TUNE** knob



Memory Information (if equipped)

Displays currently used memory and total system memory.

Select [Memory Information] ▶ OK

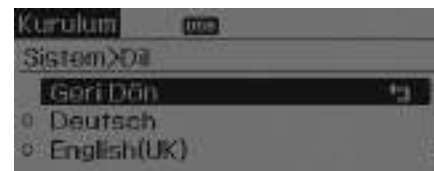
The currently used memory is displayed on the left side while the total system memory is displayed on the right side.



Language

This menu is used to set the display and voice recognition language.

Select [Language] ▶ Set through **TUNE** knob

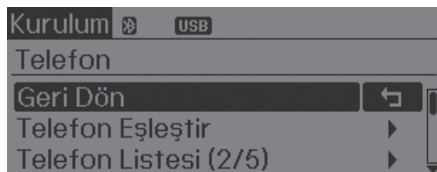


* The system will reboot after the language is changed.

* Language support by region
- Deutsch, English(UK), Français, Italiano, Español, Nederlands, Svenska, Dansk, Русский, Polski, Türkçe

Phone Setup (if equipped)

Press the **SETUP** **CLOCK** key ▶ Select [Phone]
(for RDS model)



Pair Phone

i Information

To pair a *Bluetooth*® Wireless Technology enabled mobile phone, authentication and connection processes are first required. As a result, you cannot pair your mobile phone while driving the vehicle. First park your vehicle before use.

Select [Pair Phone] ▶ Set through
● TUNE knob

- ① Search for device names as displayed on your mobile phone and connect.
- ② Input the passkey displayed on the screen. (Passkey : 0000)

* The device name and passkey will be displayed on the screen for up to 3 minutes. If pairing is not completed within the 3 minutes, the mobile phone pairing process will automatically be canceled.

③ Pairing completion is displayed.

* In some mobile phones, pairing will automatically be followed by connection.

* It is possible to pair up to five *Bluetooth*® Wireless Technology enabled mobile phones.

Phone List

The names of up to 5 paired phones will be displayed.

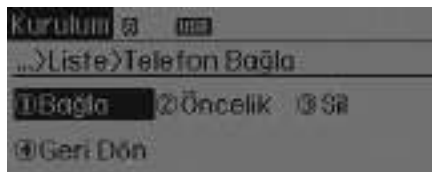


A [▶] is displayed in front of the currently connected phone.

Select the desired name to setup the selected phone.

• Connecting a phone

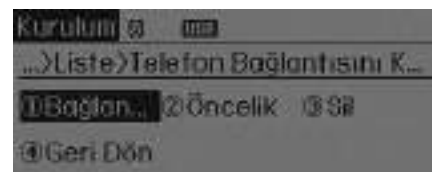
Select [Phone List] ▶ Select mobile phone through ● TUNE knob ▶ Select [Connect Phone]



- ① Select a mobile phone that is not currently connected.
 - ② Connect the selected mobile phone.
 - ③ Connection completion is displayed.
- * If a phone is already connected, disconnect the currently connected phone and select a new phone to connect.

• Disconnecting a connected phone


Select [Phone List] ▶ Select mobile phone through ● TUNE knob ▶ Select [Disconnect Phone]



- ① Select the currently connected mobile phone.
- ② Disconnect the selected mobile phone.
- ③ Disconnection completion is displayed.

- Changing connection sequence (Priority)

This is used to change the order (priority) of automatic connection for the paired mobile phones.

Select [Phone List]▶Select [Priority] through  TUNE knob▶Select No. 1 Priority mobile phone

- ① Select [Priority].
 - ② From the paired phones, select the phone desired for No.1 priority.
 - ③ The changed priority sequence is displayed.
- * Once the connection sequence (priority) is changed, the new no. 1 priority mobile phone will be connected.
- when the no. 1 priority cannot be connected: Automatically attempts to connect the most recently connected phone.
- Cases when the most recently connected phone cannot be connected: Attempts to connect in the order in which paired phones are listed.

-The connected phone will automatically be changed to No. 1 priority.

- Delete

Select [Phone List]▶Select mobile phone through  TUNE knob▶Select [Delete]

- ① Select the desired mobile phone.
 - ② Delete the selected mobile phone.
 - ③ Deletion completion is displayed.
- * When attempting to delete a currently connected phone, the phone is first disconnected.

Information

- **When you delete a mobile phone, the mobile phone contacts will also be erased.**
- **For stable *Bluetooth*[®] Wireless Technology communication, delete the mobile phone from the audio and also delete the audio from your mobile phone.**

Phone book Download (for RDS model)

This feature is used to download phone book and call histories into the audio system.

Select [Phone book Download]▶Select through  TUNE knob.

Information

- **The download feature may not be supported in some mobile phones.**
- **If a different operation is performed while phone book is being downloaded, downloading will be discontinued. Phone book already downloaded will be saved.**
- **When downloading new phone book, delete all previously saved phone book before starting download.**

Auto Download

When connecting a mobile phone, it is possible to automatically download new Contacts and Call Histories.

Select [Auto Download]▶Set  /  through 

Audio Streaming

Songs (files) saved in your *Bluetooth*® Wireless Technology enabled mobile phone can be played through the audio system.

Select [Audio Streaming] ▶ Set On / Off through 


Information

The *Bluetooth*® Wireless Technology audio streaming feature may not be supported in some mobile phones.

Outgoing Volume


This is used to set the volume of your voice as heard by the other party while on a *Bluetooth*® Wireless Technology enabled handsfree call.

Select [Outgoing Volume] ▶ Set volume through 

* While on a call, the volume can be changed by using the  key.

Bluetooth® Wireless Technology System Off


This feature is used when you do not wish to use the *Bluetooth*® Wireless Technology system.

Select [Bluetooth System Off] ▶ Set through 

* If a phone is already connected, disconnect the currently connected phone and turn the *Bluetooth*® Wireless Technology system off.


Using the Bluetooth® Wireless Technology System

To use *Bluetooth*® Wireless Technology when the system is currently off, follow these next steps.

- Turning On *Bluetooth*® Wireless Technology through the  Key

Press the  key ▶ Screen Guidance

* Moves to the screen where *Bluetooth*® Wireless Technology functions can be used and displays guidance.

- Turning On *Bluetooth*® Wireless Technology through the  Key

Press the  key ▶ Select [Phone]

- ① A screen asking whether to turn on *Bluetooth*® Wireless Technology will be displayed.
- ② On the screen, select YES to turn on *Bluetooth*® Wireless Technology and display guidance.

* If the *Bluetooth*® Wireless Technology system is turned on, the system will automatically try to connect the most recently connected *Bluetooth*® Wireless Technology mobile phone.

i Information

Bluetooth® Wireless Technology connection may become intermittently disconnected in some mobile phones. Follow these next steps to try again.

- 1) Turn the **Bluetooth®** Wireless Technology function within the mobile phone ON/OFF and try to connect again.
- 2) Turn the mobile phone power ON/OFF and try to connect again.
- 3) Completely remove the mobile phone battery, reboot, and then try to connect again.
- 4) Reboot the audio system and try to connect again
- 5) Delete all paired devices in your mobile phone and the audio system and pair again for use.

RADIO (for RDS model)

Changing RADIO mode



SEEK

Press the **SEEK** (up arrow) or **TRACK** (down arrow) key

- Shortly pressing the key (under 0.8 seconds): Changes the frequency.
- Pressing and holding the key (over 0.8 seconds): Automatically searches for the next frequency.

Preset SEEK

Press the **1** ~ **6** key

- Shortly pressing the key (under 0.8 seconds): Plays the frequency saved in the corresponding key.
- Pressing and holding the key (over 0.8 seconds): Pressing and holding the desired key from **1** ~ **6** will save the currently playing broadcast to the selected key and sound a BEEP.

SCAN

Press the **TA/SCAN** key

- Pressing and holding the key (over 0.8 seconds): The broadcast frequency increases and previews each broadcast for 5 seconds each. After scanning all frequencies, returns and plays the current broadcast frequency.

Selecting through manual search

Turn the **TUNE** knob left/right to adjust the frequency.

- AC210MDEE
 - FM : Changes by 50KHz
 - AM : Changes by 9khz

Traffic Announcement (TA)

Shortly pressing the **TA/SCAN** key (under 0.8 seconds): Set **On/Off** (TA Traffic Announcement) mode.

MENU

Within **MENU** key are the A.Store (Auto Store) and Info functions.



AST (Auto Store)

Press the **MENU** key ▶ Set [**1**AST] through **TUNE** knob or **1 RPT** key. Select AST (Auto Store) to save frequencies with superior reception to presets **1** ~ **6**. If no frequencies are received, then the most recently received frequency will be broadcast.

- * Saves only to the Preset memory **1** ~ **6** of FMA or AMA mode.

AF (Alternative Frequency)

Press the **MENU** key ▶ Set [**2**AF] through **TUNE** knob or **2 RDM** key. The Alternative Frequency option can be turned On/Off.

Region

Press the **MENU** key ▶ Set [**3**Region] through **TUNE** knob or **3** key.

The Region option can be turned On/Off.

News

Press the **MENU** key ▶ Set [**4**News] through **TUNE** knob or **4** key. The News option can be turned On/Off.

Info Volume

Info Volume refers to the sound volume upon receiving News or Traffic information.

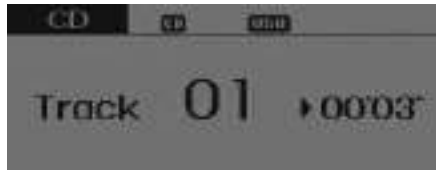
The info volume can be controlled by turning the **VOL** knob left/right while a news or traffic broadcast is playing.

- * AF, Region, and News are RDS Radio menus.

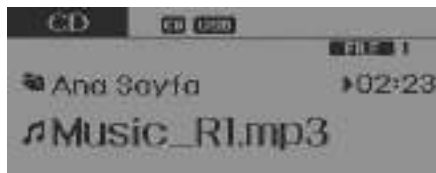
BASIC METHOD OF USE : Audio CD / MP3 CD / USB / iPod® / My Music

Press the **MEDIA** key to change the mod mode in order of CD → USB(iPod®) → AUX → My Music → BT Audio.

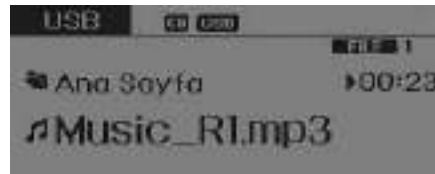
The folder/file name is displayed on the screen.



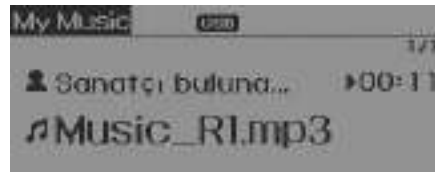
<Audio CD>



<CD MP3>



<USB>



<My Music>

- * The CD is automatically played when a CD is inserted.
- * The USB music is automatically played when a USB is connected.

Repeat

While song (file) is playing ▶ **1 RPT** (RPT) key

Audio CD, MP3 CD, USB, iPod®, My Music mode: RPT on screen

- To repeat one song (Shortly pressing the key (under 0.8 seconds)): Repeats the current song.

MP3 CD, USB mode: FLD.RPT on screen

- To repeat folder (pressing twice): repeats all files within the current folder.
- * Press the **1 RPT** key again to turn off repeat.

Random

While song (file) is playing ▶ **2 RDM** (RDM) key

Audio CD, My Music mode: RDM on screen

- Random (Shortly pressing the key): Plays all songs in random order.

MP3 CD, USB mode: FLD.RDM on screen

- Folder Random (Shortly pressing the key): Plays all files within the current folder in random order.

MP3 CD, USB mode: RDM on screen

- Random (pressing twice): Plays all files in random order.

iPod® mode: RDM on screen

- Random (press the key) : Plays all files in random order.

- * Press the **2 RDM** key again to turn off random.

Changing Song/File

While song (file) is playing ▶ **TRACK** key

- Shortly pressing the key: Plays the current song from the beginning.

- * If the **TRACK** key is pressed again within 1 second, the previous song is played.

- Pressing and holding the key (over 0.8 seconds): Rewinds the song.

While song (file) is playing ▶ **SEEK** key

- Shortly pressing the key: Plays the next song.

- Pressing and holding the key (over 0.8 seconds): Fast forwards the song.

Scan (for RDS model)

While song (file) is playing ▶ **TA/SCAN** key

- Pressing and holding the key (over 0.8 seconds) : Scans all songs for 10 seconds starting from the next song.

- * Pressing and holding the **TA/SCAN** key again to turn off.

Scan

While song (file) is playing ▶ **SCAN** key

- Shortly pressing the key (under 0.8 seconds) : Scans all songs from the next song for 10 seconds each.

- * Press the **SCAN** key again to turn off.

- * The SCAN function is not supported in iPod® mode.

Folder Search : MP3 CD, USB Mode

While file is playing ▶ **FOLDER** / **FOLDER** (Folder Up) key

- Searches the next folder.

While file is playing ▶ **FOLDER** / **FOLDER** (Folder Down) key

- Searches the parent folder.

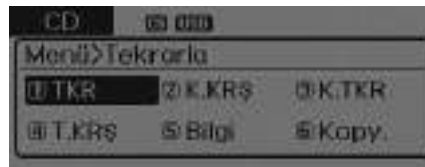
* If a folder is selected by pressing the **TUNE** knob, the first file within the selected folder will be played.

Searching Songs (File)

- Turning **TUNE** knob : Searches for songs (files)
- Pressing **TUNE** knob : Plays selected song (file).

MENU : Audio CD

Press the CD MP3 mode **MENU** key to set the Repeat, Random, Information features.



Repeat

Press the **MENU** key ▶ Set [**1**RPT] through the **TUNE** knob or **1**RPT key to repeat the current song.

* Press RPT again to turn off.

Random

Press the **MENU** key ▶ Set [**2**RDM] through the **TUNE** knob or **2**RDM key to randomly play songs within the current folder.

* Press RDM again to turn off.

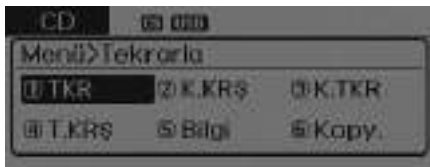
Information

Press the **MENU** key ▶ Set [**3**Info] through the **TUNE** knob or **3** key to display information of the current song.

* Press the **MENU** key to turn off info display.

MENU : MP3 CD / USB

Press the CD MP3 mode **MENU** key to set the Repeat, Folder Random, Folder Repeat, All Random, Information, and Copy features.



Repeat

Press the **MENU** key ▶ Set [**1**RPT] through the **TUNE** knob or **1 RPT** key to repeat the current song.

* Press RPT again to turn off.

Folder Random

Press the **MENU** key ▶ Set [**2**F.RDM] through the **TUNE** knob or **2 RDM** key to randomly play songs within the current folder.

* Press F.RDM again to turn off.

Folder Repeat

Press the **MENU** key ▶ Set [**3**F.RPT] through the **TUNE** knob or **3** key to repeat songs within the current folder.

* Press F.RPT again to turn off.

All Random

Press the **MENU** key ▶ Set [**4**A.RDM] through the **TUNE** knob or **4** key to randomly play all songs within the CD.

* Press A.RDM again to turn off.

Information

Press the **MENU** key ▶ Set [**5**Info] through the **TUNE** knob or **5** key to display information of the current song.

* Press the **MENU** key to turn off info display.

Copy

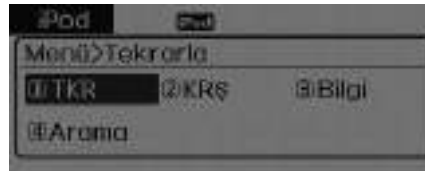
Press the **MENU** key ▶ Set [**6**Copy] through the **TUNE** knob or **6** key.

This is used to copy the current song into My Music. You can play the copied Music in My Music mode.

- * If another key is pressed while copying is in progress, a pop up asking you whether to cancel copying is displayed.
- * If another media is connected or inserted (USB, CD, iPod®, AUX) while copying is in progress, copying is canceled.
- * Music will not be played while copying is in progress.

MENU : iPod®

In iPod® mode, press the **MENU** key to set the Repeat, Random, Information and Search features.



Repeat

Press the **MENU** key ▶ Set [**1**RPT] through the **TUNE** knob or **1 RPT** key to repeat the current song.

- * Press RPT again to turn repeat off.

Random

Press the **MENU** key ▶ Set [**2**RDM] through the **TUNE** knob or **2 RDM** key.

Plays all songs within the currently playing category in random order.

- * Press RDM again to turn off.

Information

Press the **MENU** key ▶ Set [**3**Info] through the **TUNE** knob or **3** key.

Displays information of the current song.

- * Press the **MENU** key to turn off info display.

Search

Press the **MENU** key ▶ Set [**4**Search] through the **TUNE** knob or **4** key.

Displays iPod® category list.

- * Searching iPod® category is **MENU** key pressed, move to parent category.

MENU : My Music Mode (if equipped)

In My Music mode, press the **MENU** key to set the Repeat, Random, Information, Delete, Delete All, and Delete Selection features.



Repeat

Press the **MENU** key ▶ Set [**1**RPT] through the **TUNE** knob or **1** **RPT** key.

Repeats the currently playing song.

* Press RPT again to turn repeat off.

Random

Press the **MENU** key ▶ Set [**2**RDM] through the **TUNE** knob or **2** **RDM** key.

Plays all songs in random order.

* Press RDM again to turn random off.

Information

Press the **MENU** key ▶ Set [**3**Info] through the **TUNE** knob or **3** key.

Displays information of the current song.

* Press the **MENU** key to turn off info display.

Delete

Press the **MENU** key ▶ Set [**4**Delete] through the **TUNE** knob or **4** key.

Deletes currently playing file

In the play screen, pressing delete will delete the currently playing song.

Deletes file from list

- ① Select the file you wish to delete by using the **TUNE** knob.
- ② Press the **MENU** key and select the delete menu to delete the selected file.

Delete All

Press the **MENU** key ▶ Set [5] Del.All] through the **TUNE** knob or **5** key.

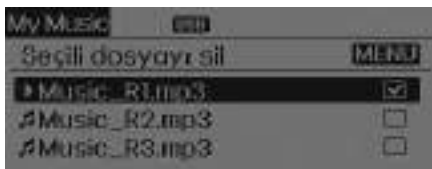
Deletes all songs of My Music.

Delete Selection

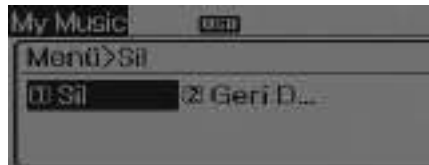
Press the **MENU** key ▶ Set [6] Del.Sel] through the **TUNE** knob or **6** key.

Songs within My Music are selected and deleted.

① Select the songs you wish to delete from the list.



② After selecting, press the **MENU** key and select the delete menu.



i Information - Using the My Music

- Even if memory is available, a maximum of 6,000 songs can be stored.
- The same song can be copied up to 1,000 times.
- Memory info can be checked in the System menu of Setup.

AUX

AUX is used to play external MEDIA currently connected with the AUX terminal.

AUX mode will automatically start when an external device is connected with the AUX terminal.

If an external device is connected, you can also press the **MEDIA** key to change to AUX mode.



* AUX mode cannot be started unless there is an external device connected to the AUX terminal.

i Information - using THE AUX

Fully insert the AUX cable into the AUX terminal for use.

Bluetooth® Wireless Technology AUDIO MODE (If equipped)

What is Bluetooth® Wireless Technology?

Bluetooth® Wireless Technology allows devices to be connected in a short distance, including hands-free devices, stereo headsets, wireless remote controllers, etc. For more information, visit the Bluetooth® Wireless Technology website at www.Bluetooth.com

Before using Bluetooth® Wireless Technology audio features


- Bluetooth® Wireless Technology audio may not be supported depending on the compatibility of your Bluetooth® Wireless Technology mobile phone.
- In order to use Bluetooth® Wireless Technology audio, you must first pair and connect the Bluetooth® Wireless Technology mobile phone.
- The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth® SIG, Inc. and any use of such marks is under license. Other trademarks and trade names are those of their respective owners. A Bluetooth® enabled cell phone is required to use Bluetooth® Wireless Technology
- Bluetooth® Wireless Technology audio can be used only when the [Audio Streaming] of Phone is turned On.
- * Setting Bluetooth® Wireless Technology Audio Streaming : Press the **SETUP** key ▶ Select [Phone] through the tune knob ▶ Select [Audio Streaming] through the **TUNE** knob ▶ Set **On**/**Off**

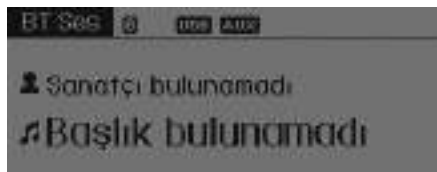
Starting Bluetooth® Wireless Technology Audio

- Press the **MEDIA** key to change the mode in order of CD → USB → AUX → My Music → BT Audio.
- If BT Audio is selected, Bluetooth® Wireless Technology audio will start playing.
- * Audio may not automatically start playing in some mobile phones.

Using the *Bluetooth*® Wireless Technology audio features

- Play / Pause

Press the  TUNE knob to play and pause the current song.



* The title / artist info may not be supported in some mobile phone. When it is not supported, no title / no artist will be displayed.

- Previous / Next song

Press  of  to play previous or next song.

* The previous song / next song / play / pause functions may not be supported in some mobile phones.



PHONE (if equipped)



Before using the *Bluetooth*® Wireless Technology phone features


- In order to use *Bluetooth*® Wireless Technology phone, you must first pair and connect the *Bluetooth*® Wireless Technology mobile phone.
- If the mobile phone is not paired or connected, it is not possible to enter Phone mode. Once a phone is paired or connected, the guidance screen will be displayed.
- If Priority is set upon vehicle ignition (IGN/ACC ON), the *Bluetooth*® Wireless Technology phone will be automatically connected. Even if you are outside, the *Bluetooth*® Wireless Technology phone will be automatically connected once you are in the vicinity of the vehicle. If you do not want automatic *Bluetooth*® Wireless Technology phone connection, set the *Bluetooth*® Wireless Technology power to OFF.

Making a call using the Steering wheel remote controller



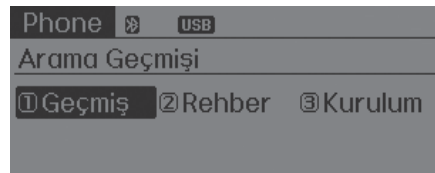
1. VOLUME button : Raises or lowers speaker volume.
2. MUTE button : Mute the microphone during a call.
3.  button : Places and transfers calls.
4.  button : Ends calls or cancels functions.

- Check call history and making call
 - ① Shortly press (under 0.8 seconds) the  key on the steering remote controller.
 - ② The call history list will be displayed on the screen.
 - ③ Press the  key again to connect a call to the selected number.

- Redialing the most recently called number
 - ① Press and hold (over 0.8 seconds) the  key on the steering remote controller.
 - ② The most recently called number is redialed.

Phone MENU (for RDS model)

Press the **PHONE** key to display three menus (Call History, Phone Book, Phone Setup).



Call history

Press the **PHONE** key ▶ Set [1 History] through the  TUNE knob or **1 RPT** key.

The call history is displayed and can be used to select a number and make a call.

If call history does not exist, a screen asking whether to download call history is displayed. (The download feature may not be supported in some mobile phones)

Phone Book

Press the **PHONE** key ▶ Set [2 P. Book] through the  TUNE knob or **2 RDM** key.

The phone book is displayed and can be used to select a number and make a call.

- * If more than one number is saved to one contact, then a screen showing the mobile phone number, Home and office number is displayed. Select the desired number to make the call.
- * If phone book do not exist, a screen asking whether to download phone book is displayed. (The download feature may not be supported in some mobile phones)

Phone Setup

Press the **PHONE** key ▶ Set [**3**] Setup] through the **TUNE** knob or **3** key.

The *Bluetooth*® Wireless Technology mobile phone setup screen is displayed. For more information, refer to “Phone Setup”.

i Information

- using THE *Bluetooth*® Wireless Technology CELLULAR PHONE

- Do not use a cellular phone or perform *Bluetooth*® Wireless Technology settings (e.g. pairing a phone) while driving.
- Some *Bluetooth*® Wireless Technology -enabled phones may not be recognized by the system or fully compatible with the system.
- Before using *Bluetooth*® Wireless Technology related features of the audio system, refer your phone’s User’s Manual for phone-side *Bluetooth*® Wireless Technology operations.
- The phone must be paired to the audio system to use *Bluetooth*® Wireless Technology related features.
- You will not be able to use the hands-free feature when your phone (in the vehicle) is outside of the cellular service area (e.g. in a tunnel, in a underground, in a mountainous area, etc.).

(Continued)

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- If the cellular phone signal is poor or the vehicles interior noise is too loud, it may be difficult to hear the other person’s voice during a call.
- Do not place the phone near or inside metallic objects, otherwise communications with *Bluetooth*® Wireless Technology system or cellular service stations can be disturbed.
- While a phone is connected through *Bluetooth*® Wireless Technology your phone may discharge quicker than usual for additional *Bluetooth*® Wireless Technology-related operations.
- Some cellular phones or other devices may cause interference noise or malfunction to audio system. In this case, store the device in a different location may resolve the condition.
- Phone contact names should be saved in English or they may not be displayed correctly.

(Continued)

(Continued)

- If Priority is set upon vehicle ignition (IGN/ACC ON), the *Bluetooth*® Wireless Technology phone will be automatically connected.

Even if you are outside, the *Bluetooth*® Wireless Technology phone will be automatically connected once you are in the vicinity of the vehicle.

If you do not want automatic *Bluetooth*® Wireless Technology connection, turn the *Bluetooth*® Wireless Technology feature off.

- The hands-free call volume and quality may differ depending on the mobile phone type.
- *Bluetooth*® Wireless Technology features can be used only when the mobile phone has been paired and connected with the device. For more information on pairing and connecting *Bluetooth*® Wireless Technology enabled mobile phones, refer to the “Phone Setup” section.

(Continued)

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- When a *Bluetooth*® Wireless Technology mobile phone is connected, a (📶) icon will appear at the top of the screen. If a (📶) icon is not displayed, this indicates that a *Bluetooth*® Wireless Technology enabled device has not been connected. You must connect the device before use. For more information on *Bluetooth*® Wireless Technology mobile phones, refer to the “Phone Setup” section.
- Pairing and connecting a *Bluetooth*® Wireless Technology enabled mobile phone will work only when the *Bluetooth*® Wireless Technology option within your mobile phone has been turned on. (Methods of turning on the *Bluetooth*® Wireless Technology enabled feature may differ depending on the mobile phone.)

(Continued)

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- In some mobile phones, starting the ignition while talking through *Bluetooth*® Wireless Technology enabled handsfree call will result in the call becoming disconnected. (Switch the call back to your mobile phone when starting the ignition.)
- Some features may not be supported in some *Bluetooth*® Wireless Technology mobile phone and devices.
- *Bluetooth*® Wireless Technology enabled operation may be unstable depending on the communication state.
- Placing the audio system within an electromagnetic environment may result in noise interference.

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 **WARNING**

ENGINE EXHAUST CAN BE DANGEROUS!

Engine exhaust fumes can be extremely dangerous. If, at any time, you smell exhaust fumes inside the vehicle, open the windows immediately.

Do not inhale exhaust fumes.

Exhaust fumes contain carbon monoxide, a colorless, odorless gas that 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 system be checked 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. Never run the engine in your garage any longer than it takes to start the engine and back the vehicle out.

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 operating at one of the higher speeds so fresh air is drawn into the interior.

If you must drive with the tailgate open because you are carrying objects that make this necessary:

1. Close all windows.
2. Open side vents.
3. Set the air intake control at "Fresh", the air flow control at "Floor" or "Face" and the fan at one of the higher speeds.

To assure proper operation of the ventilation system, be sure the ventilation air intakes located just in front of the windshield are kept clear of snow, ice, leaves or other obstructions.

BEFORE DRIVING

Before entering the vehicle

- Be sure that all windows, outside mirror(s), and outside lights are clean.
- Check the condition of the tires.
- Check under the vehicle for any sign of leaks.
- Be sure there are no obstacles behind you if you intend to back up.

Necessary inspections

Fluid levels, such as engine oil, engine coolant, power steering fluid, brake fluid, and washer fluid should be checked on a regular basis, with the exact interval depending on the fluid. Further details are provided in Section 7, “Maintenance”.

WARNING

Driving while distracted can result in a loss of vehicle control, that may lead to an accident, severe personal injury, and death. The driver's primary responsibility is in the safe and legal operation of a vehicle, and use of any handheld devices, other equipment, or vehicle systems which take the driver's eyes, attention and focus away from the safe operation of a vehicle or which are not permissible by law should never be used during operation of the vehicle.

Before starting

- Close and lock all doors.
- Position the seat so that all controls are easily reached.
- Adjust the inside and outside rearview mirrors.
- Be sure that all lights work.
- Check all gauges.
- Check the operation of warning lights when the ignition switch is turned to the ON position.
- Release the parking brake and make sure the brake warning light goes out.

For safe operation, be sure you are familiar with your vehicle and its equipment.

 **WARNING**

All passengers must be properly belted whenever the vehicle is moving. Refer to “Seat belts” in section 3 for more information on their proper use.

 **WARNING**

Always check the surrounding areas near your vehicle for people, especially children, before putting a vehicle into “Drive” or “Reverse”.

 **WARNING**

Driving under the influence of alcohol or drugs

Drinking and driving is dangerous. 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. Driving while under the influence of drugs is as dangerous or more dangerous than driving drunk.

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 cab.

 **WARNING**

- When you intend to park or stop the vehicle with the engine on, be careful not to depress the accelerator pedal for a long period of time. It may overheat the engine or exhaust system and cause fire.
- When you make a sudden stop or turn the steering wheel rapidly, loose objects may drop on the floor and it could interfere with the operation of the foot pedals, possibly causing an accident. Keep all things in the vehicle safely stored.
- If you do not focus on driving, it may cause an accident. Be careful when operating what may disturb driving such as audio or heater. It is the responsibility of the driver to always drive safely.

KEY POSITIONS

Illuminated ignition switch (if equipped)



Whenever a front door is opened, the ignition switch will be illuminated for your convenience, 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.

Ignition switch position

LOCK

The steering wheel locks to protect against theft. The ignition key can be removed only in the LOCK position. When turning the ignition switch to the LOCK position, push the key inward at the ACC position and turn the key toward the LOCK position.

ACC (Accessory)

The steering wheel is unlocked and electrical accessories are operative.

NOTICE

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 the tension.

ON

The warning lights can be checked before the engine is started. This is the normal running position after the engine is started.

Do not leave the ignition switch ON if the engine is not running to prevent battery discharge.

START

Turn the ignition key to the START position to start the engine. The engine will crank until you release the key; then it returns to the ON position. The brake warning lamp can be checked in this position.

 **WARNING**

Ignition key

- Never turn the ignition switch to LOCK or ACC while the vehicle is moving. This would result in loss of directional control and braking function, which could cause an accident.
- The anti-theft steering column lock is not a substitute for the parking brake. Before leaving the driver's seat, always make sure the shift lever is engaged in 1st gear for the manual transmission, set the parking brake fully and shut the engine off. Unexpected and sudden vehicle movement may occur if these precautions are not taken.

(Continued)

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- Never reach for the ignition switch, or any other controls through the steering wheel while the vehicle is in motion. The presence of your hand or arm in this area could cause a loss of vehicle control, an accident and serious bodily injury or death.
- Do not place any movable objects around the driver's seat as they may move while driving, interfere with the driver and lead to an accident.

Starting the engine

 **WARNING**

- Always wear appropriate shoes when operating your vehicle. Unsuitable shoes (high heels, ski boots, etc.) may interfere with your ability to use the brake and accelerator pedal, and the clutch.
- Do not start the vehicle with the accelerator pedal depressed. The vehicle can move and 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.

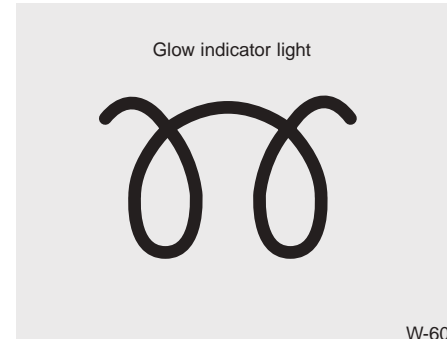
NOTICE

Kick down mechanism (if equipped)

If your vehicle is equipped with a kick down mechanism in the accelerator pedal, it prevents you from driving at full throttle unintentionally by making the driver require increased effort to depress the accelerator pedal. However, if you depress the pedal more than approximately 80%, the vehicle can be at full throttle and the accelerator pedal will be easier to depress. This is not a malfunction but a normal condition.

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.
2. Depress the clutch pedal fully and shift the transmission into Neutral. Keep the clutch pedal and brake pedal depressed while turning the ignition switch to the start position.



3. Turn the ignition switch to the ON position to pre-heat the engine. Then the glow indicator light will illuminate.
4. If the glow indicator light goes out, turn the ignition switch to the START position and hold it there until the engine starts (a maximum of 10 seconds), then release the key.

NOTICE

If the engine were not started within 10 seconds after the preheating is completed, turn the ignition key once more to the LOCK position during 10 seconds, and then to the ON position, in order to preheat again.

Starting and stopping the engine for turbocharger intercooler

1. Do not race or accelerate the engine immediately after starting.
If the engine is cold, idle for several seconds before sufficient lubrication is ensured in the turbocharger unit.
2. After high speed or extended driving, requiring a heavy engine load, idle the engine about 1 minute before turning it off.

This idle time will allow the turbocharger to cool prior to shutting the engine off.

 **CAUTION**

Do not turn the engine off immediately after it has been subjected to a heavy load. Doing so may cause severe damage to the engine or turbocharger unit.

ISG (IDLE STOP AND GO) SYSTEM (IF EQUIPPED)

Your vehicle may be equipped with the ISG system, which reduces fuel consumption by automatically shutting down the engine, when the vehicle is at a standstill. (For example : red light, stop sign and traffic jam)

The engine starts automatically as soon as the starting conditions are met.

The ISG system is ON whenever the engine is running.

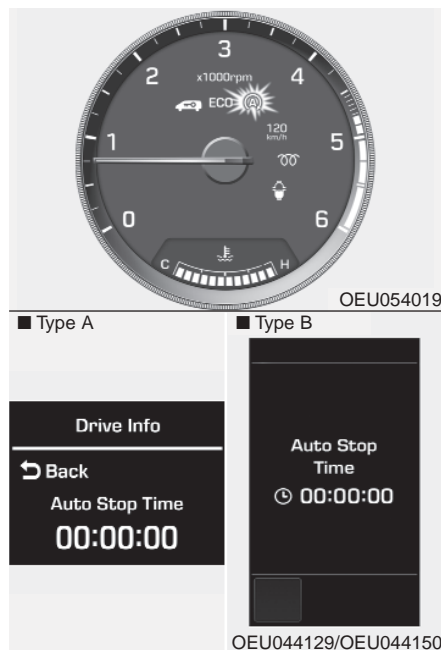
NOTICE

When the engine automatically starts by the ISG system, some warning lights (ABS, VDC, VDC OFF, EBD) may turn on for a few seconds.

This happens because of low battery voltage. It does not mean the system is malfunctioning.

Auto stop

To stop the engine in idle stop mode



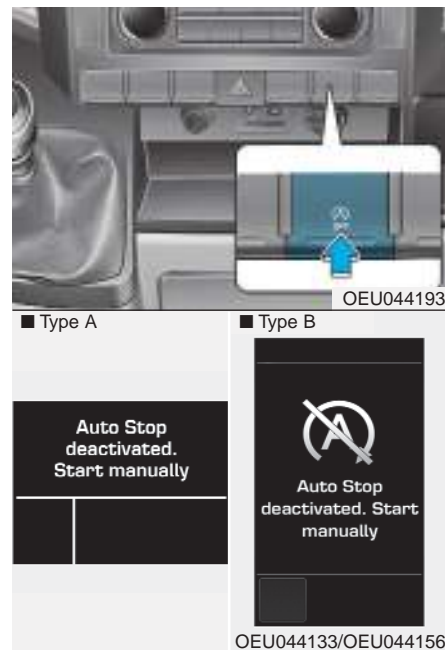
1. Decrease the vehicle speed to less than 5 km/h.

2. Shift into N (Neutral) position.
3. Release the clutch pedal.

The engine will stop and the green AUTO STOP indicator (A) on the instrument cluster will illuminate. Also, a message "Auto Stop Time" will appear on the LCD display.

NOTICE

You must reach a speed of at least 10km/h since last idle stop.



NOTICE

If you unfasten the seat belt or open the driver's door(or engine hood) in auto stop mode, the light on the ISG OFF button will illuminate and ISG system is deactivated. (continued)

(continued)

Also, a message "Auto Stop deactivated. start manually will appear on the LCD display. Turn the ignition switch to the **START** position to start the engine manually. Or if you fasten the seat belt or close the driver's door(or engine hood), ISG system will be activate.

Auto start

To restart the engine from idle stop mode

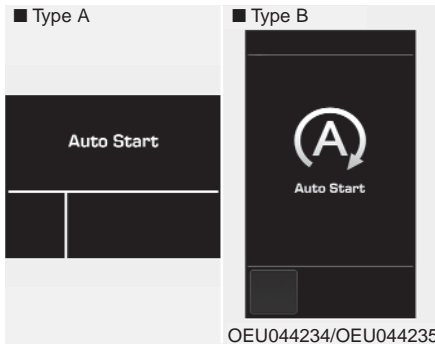
- Press the clutch pedal when the shift lever is in the N (Neutral) position.

The engine will start and the green AUTO STOP indicator (A) on the instrument cluster will go out.

The engine will also restart automatically without the driver's any actions if the following occurs:

- The fan speed of manual climate control system is set above the 3rd position when the air conditioning is on.
- When a certain amount of time has passed with the climate control system on.
- The fan speed of manual climate control system is set above the 1st position when the defroster is on.
- The brake vacuum pressure is low.
- The battery charging status is low.
- The vehicle speed exceeds 5 km/h.

The green AUTO STOP indicator (A) on the instrument cluster will blink for 5 seconds and a message "Auto Start" will appear on the LCD display.

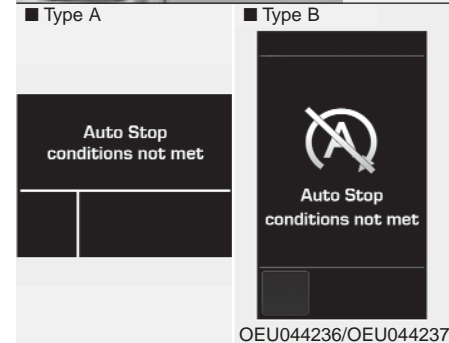


Also, a message "Auto Stop deactivated. Start manually" will appear on the LCD display.

Condition of ISG system operation

The ISG system will operate under the following condition:

- The driver's seat belt is fastened.
- The driver's door and hood are closed.
- The brake vacuum pressure is adequate.
- The battery is sufficiently charged.
- The outside temperature is between 2°C to 35°C.
- The engine coolant temperature is not too low.
- The fan speed of manual climate control system is set below the 3rd position when the air conditioning is on.
- The defroster is off



NOTICE

- If the ISG system does not meet that operation condition, the ISG system is deactivated.

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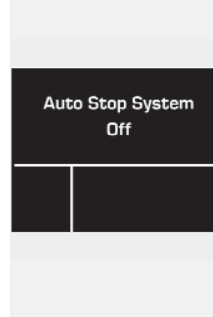
The light on the ISG OFF button will illuminate and a message "Auto Stop condition not met" will appear on the LCD display.

- If the light or notice is come on continuously, please check the operation condition.

ISG system deactivation



■ Type A



■ Type B



The light on the ISG OFF button will illuminate and a message "Auto Stop System Off" will appear on the LCD display.

- If you press the ISG OFF button again, the system will be activated and the light on the ISG OFF button will turn off.

- If you desire to deactivate the ISG system, press the ISG OFF button.

ISG system malfunction

The system may not operate when:

- The ISG related sensors or system error occurs.

The yellow AUTO STOP indicator ((A)) on the instrument cluster will stay on after blinking for 5 seconds and the light on the ISG OFF button will illuminate.

NOTICE

- If the ISG OFF button light is not turned off by pressing the ISG OFF button again or if the ISG system continuously does not work correctly, we recommend that you contact an authorized HYUNDAI dealer.

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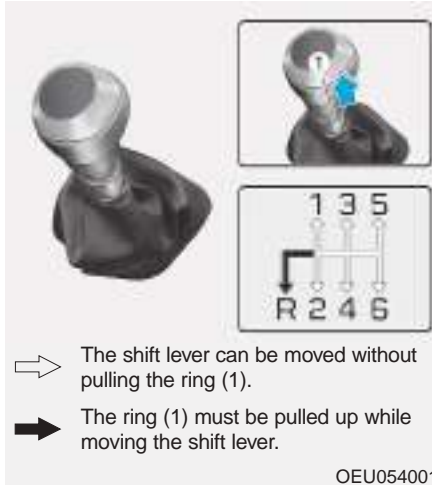
- When the ISG OFF button light comes on, it may stop illuminating after driving your vehicle at approximately 80 km/h for a maximum of two hours and setting the fan speed control knob below the 2nd position. If the ISG OFF button light continues to be illuminated in spite of the procedure, we recommend that you contact an authorized HYUNDAI dealer.

WARNING

When the engine is in Idle Stop mode, it's possible to restart the engine without the driver taking any action.

Before leaving the vehicle or doing anything in the engine room area, stop the engine by turning the ignition switch to the LOCK(OFF) position or removing the ignition key.

MANUAL TRANSMISSION (IF EQUIPPED)



- ⇒ The shift lever can be moved without pulling the ring (1).
- ➔ The ring (1) must be pulled up while moving the shift lever.

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Manual transmission operation

The manual transmission has 6 forward gears.

This shift pattern is imprinted on the shift knob. The transmission is fully synchronized in all forward gears so shifting to either a higher or a lower gear is easily accomplished.

Press the clutch pedal down fully while shifting, then release it slowly.

If your vehicle is equipped with an ignition lock system, the engine will not start when starting the engine without depressing the clutch pedal.

The gearshift lever must be returned to the neutral position before shifting into R (Reverse). The ring located immediately below the shift knob must be pulled upward while moving the shift lever to the R position. (Type A)

Make sure the vehicle is completely stopped before shifting into R (Reverse).

Never operate the engine with the tachometer (rpm) in the red zone.

⚠ CAUTION

- When downshifting from fifth gear to fourth gear, caution should be taken not to inadvertently press the gear shift lever sideways in such a manner that second gear is engaged. Such a drastic downshift may cause the engine speed to increase to the point that the tachometer will enter the red-zone. Such over-revving of the engine may possibly cause engine damage.
- When upshifting from fifth gear to sixth gear, caution should be taken not to inadvertently press the gear shift lever sideways in such a manner that fourth gear is engaged. Such a drastic downshift may cause the engine speed to increase to the point that the tachometer will enter the red-zone.

(Continued)

(Continued)

Such over-revving of the engine may possibly cause engine damage.

- Do not downshift more than 2 gears or downshift the gear when the engine is running at high speed (5,000 RPM or higher). Such a downshifting may damage the engine, clutch and the transmission.
- During cold weather, shifting may be difficult until the transmission lubricant has warmed up. This is normal and not harmful to the transmission.
- If you've come to a complete stop and it's hard to shift into 1st or R (Reverse), put the shift lever in N (Neutral) position and release the clutch. Press the clutch pedal back down, and then shift into 1st or R (Reverse) gear position.

 **CAUTION**

- To avoid premature clutch wear and damage, do not drive with your foot resting on the clutch pedal. Also, don't use the clutch to hold the vehicle stopped on an uphill grade, while waiting for a traffic light, etc.
- Do not use the shift lever as a handrest during driving, as this can result in premature wear of the transmission shift forks.
- When operating the clutch pedal, press the clutch pedal down fully. If you don't press the clutch pedal fully, the clutch may be damaged or noise may occur.
- To prevent possible damage to the clutch system, do not start with the 2nd (second) gear engaged except when you start on a slippery road.

 **WARNING**

- Before leaving the driver's seat, always set the parking brake fully and shut the engine off. Then make sure the transmission is shifted into 1st gear when the vehicle is parked on a level or uphill grade, and shifted into R (Reverse) on a downhill grade. Unexpected and sudden vehicle movement can occur if these precautions are not followed in the order identified.
- If your vehicle has a manual transmission not equipped with an ignition lock switch, it may move and cause a serious accident when starting the engine without depressing the clutch pedal while the parking brake is released and the shift lever not in the N(Neutral) position.

(Continued)

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- **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.**

Using the clutch

The clutch should be pressed all the way to the floor before shifting, then released slowly. The clutch pedal should always be fully released while driving. Do not rest your foot on the clutch pedal while driving. This can cause unnecessary wear. Do not partially engage the clutch to hold the vehicle on an incline. This causes unnecessary wear. Use the foot brake or parking brake to hold the vehicle on an incline. Do not operate the clutch pedal rapidly and repeatedly.

CAUTION

When operating the clutch pedal, press the clutch pedal down fully. If you don't press the clutch pedal fully, the clutch may be damaged or noise may occur.

Downshifting

When you must slow down in heavy traffic or while driving up steep hills, downshift before the engine starts to labor. Downshifting reduces the chance of stalling and gives better acceleration when you again need to increase your speed. When the vehicle is traveling down steep hills, downshifting helps maintain safe speed and prolongs brake life.

Good driving practices

- Never take the vehicle out of gear and coast down a hill. This is extremely hazardous. Always leave the vehicle in gear.
- Don't "ride" the brakes. This can cause them to overheat and malfunction. Instead, when you are driving down a long hill, slow down and shift to a lower gear. When you do this, engine braking will help slow down the vehicle.
- Slow down before shifting to a lower gear. This will help avoid over-revving the engine, which can cause damage.
- Slow down when you encounter cross winds. This gives you much better control of your vehicle.
- Be sure the vehicle is completely stopped before you attempt to shift into reverse. The transmission can be damaged if you do not. To shift into reverse, depress the clutch, move the shift lever to neutral, wait three seconds, then shift to the reverse position.

- 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 the vehicle to go out of control.

WARNING

- **Always buckle-up! 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.**

(Continued)

(Continued)

- **Loss of control often occurs if two or more wheels drop off the roadway and the driver oversteers 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.**
- **Never exceed posted speed limits.**

BRAKE SYSTEM

Power brakes

Your vehicle has power-assisted brakes that adjust automatically through normal usage.

In the event that the power-assisted brakes lose power because of a stalled engine or some other reason, you can still stop your vehicle by applying greater force to the brake pedal than you normally would. The stopping distance, however, will be longer.

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

Brakes

- **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. Continuous brake application 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.**

(Continued)

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Always test your brakes in this fashion after driving through deep water. To dry the brakes, apply them lightly while maintaining a safe forward speed until brake performance returns to normal.

- **Always, confirm the position of the brake and accelerator pedal before driving. If you don't check the position of the accelerator and brake pedal before driving, you may depress the accelerator instead of the brake pedal. It may cause a serious accident.**

In the event of brake failure

If service brakes fail to operate while the vehicle is in motion, you can make an emergency stop with the parking brake. The stopping distance, however, will be much greater than normal.

⚠ WARNING

Parking brake

Applying the parking brake while the vehicle is moving at normal speeds can cause a sudden loss of control of the vehicle. If you must use the parking brake to stop the vehicle, use great caution in applying the brake.

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/rear brakes or the brake lining indicator (🔊) will illuminate in the cluster. You may hear this sound and see this illuminate whenever you depress the brake pedal.

Please remember 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.

⚠ CAUTION

- **To avoid costly brake repairs, do not continue to drive with worn brake pads.**
- **Always replace the front or rear brake pads as pairs.**

Parking brake

Applying the parking brake



To engage the parking brake, first apply the foot brake and then pull up the parking brake lever as far as possible.

In addition it is recommended that when parking the vehicle on a gradient, the shift lever should be in a low gear on manual transmission vehicles.

Releasing the parking brake



To release the parking brake, first apply the foot brake and pull up the parking brake lever slightly. Secondly depress the release button (1) and lower the parking brake lever (2) while holding the button.

If the parking brake does not release or does not release all the way, we recommend that the system be checked by an authorized HYUNDAI dealer.

⚠ WARNING

- To prevent unintentional movement when stopped and leaving the vehicle, do not use the gearshift lever in place of the parking brake. Set the parking brake AND make sure the gearshift lever is securely positioned in 1st (First) gear or R (Reverse) for manual transmission equipped vehicles.
- Never allow anyone who is unfamiliar with the vehicle to touch the parking brake. If the parking brake is released unintentionally, serious injury may occur.
- All vehicles should always have the parking brake fully engaged when parking to avoid inadvertent movement of the vehicle which can injure occupants or pedestrians.

⚠ CAUTION

- Driving with the parking brake applied will cause excessive brake pad and brake rotor wear.
- Do not operate the parking brake while the vehicle is moving except in an emergency situation. It could damage the vehicle system and make endanger driving safety.



Check the brake warning light by turning the ignition switch ON (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 fully released and the brake warning light is off.

If the brake warning light remains on after the parking brake is released while 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 or repair shop.

If you drive while parking brake is applied, the parking brake warning light comes on and warning buzzer sounds simultaneously.

Anti-lock brake system (ABS)

WARNING

ABS (or VDC) 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. Vehicle speeds should always be reduced during extreme road conditions.

The braking distance for vehicle equipped with an anti-lock braking system (Electronic Stability Program System) may be longer than for those without it in the following road conditions.

During these conditions the vehicle should be driven at reduced speeds:

(Continued)

(Continued)

- **Rough, gravel or snow-covered roads.**
- **With tire chains installed.**
- **On roads where the road surface is pitted or has different surface height.**

The safety features of an ABS (or VDC) equipped vehicle should not be tested by high speed driving or cornering. This could endanger the safety of yourself or others.

The ABS continuously senses the speed of the wheels. If the wheels are going to lock, the ABS system repeatedly modulates the hydraulic brake pressure to the wheels.

When you apply your brakes under conditions which may lock the wheels, you may hear a “tik-tik” sound from the brakes, or feel a corresponding sensation in the brake pedal. This is normal and it means your ABS is active.

In order 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. Press your brake pedal as hard as possible or as hard as the situation warrants and allow the ABS to control the force being delivered to the brakes.

NOTICE

A click sound may be heard in the engine compartment when the vehicle begins to move after the engine is started. These conditions are normal and indicate that the anti-lock brake system is functioning properly.

- Even with the anti-lock brake system, your vehicle still requires sufficient stopping distance. Always maintain a safe distance from the vehicle in front of you.
- Always slow down when cornering. The anti-lock brake system cannot prevent accidents resulting from excessive speeds.
- 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.



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 **CAUTION**

- If the ABS warning light is on and stays on, you may have a problem with the ABS. In this case, however, your regular brakes will work normally.
- The ABS warning light will stay on for approximately 3 seconds after the ignition switch is ON. During that time, the ABS will go through self-diagnosis and the light will go off if everything is normal.

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If the light stays on, you may have a problem with your ABS. We recommend that you contact an authorized HYUNDAI dealer.

 **CAUTION**

- When you drive on a road having poor traction, such as an icy road, and operate your brakes continuously, the ABS will be active continuously and the ABS warning light may illuminate. Pull your vehicle over to a safe place and stop the engine.
- Restart the engine. If the ABS warning light is off, then your ABS system is normal. Otherwise, you may have a problem with the ABS. We recommend that you contact an authorized HYUNDAI dealer.

NOTICE

When you jump start your vehicle because of a drained battery, the engine may not run as smoothly and 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.

- Do not pump your brakes!
- Have the battery recharged before driving the vehicle.

Vehicle Dynamic Control (VDC) (if equipped)



The Vehicle Dynamic Control (VDC) system helps to stabilize the vehicle during cornering maneuvers.

VDC checks where you are steering and where the vehicle is actually going. VDC 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 VDC system will not prevent accidents.

Excessive speed in turns, abrupt maneuvers, and hydroplaning on wet surfaces can result in severe accidents.

VDC operation

VDC ON condition

When the ignition switch is in the ON position, the VDC and the VDC OFF indicator lights illuminate for approximately three seconds and goes off, then the VDC is turned on.

When operating



When the VDC is in operation, the VDC 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 VDC is active.
- When the VDC activates, the engine may not respond to the accelerator as it does under routine conditions.
- If the Cruise Control was in use when the VDC 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)

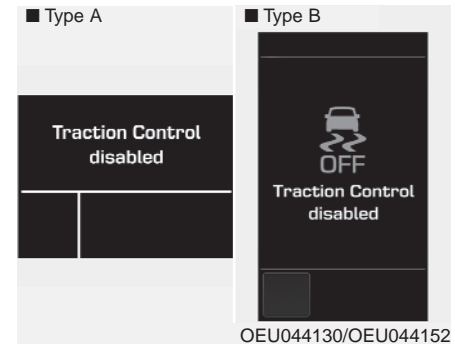
- When moving out of the mud or driving on a slippery road, the engine rpm (revolutions per minute) may not increase even if you press the accelerator pedal deeply. This is to maintain the stability and traction of the vehicle and does not indicate a problem.

VDC OFF condition



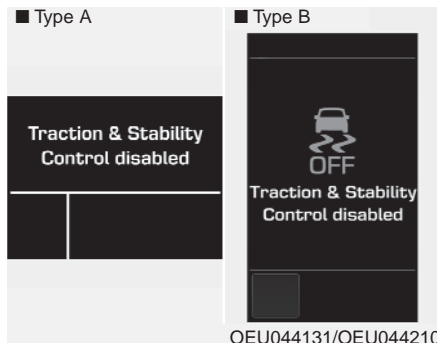
To cancel VDC operation :

- State 1



Press the VDC OFF button shortly (VDC OFF indicator light and message illuminates). At this state, the engine control function does not operate. In other words, the traction control function does not operate but only the brake control function operates.

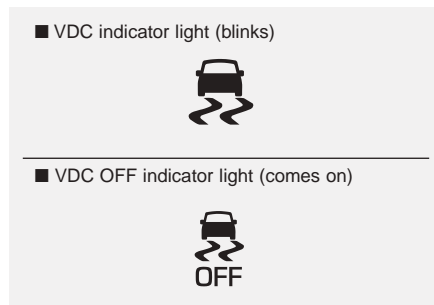
• State 2



Press the VDC OFF button for more than 3 seconds. VDC OFF indicator light and message illuminates and VDC OFF warning chime will sound. At this state, the engine control function and brake control function does not operate. In other words, the vehicle stability control function does not operate any more.

If the ignition switch is placed to the LOCK/OFF position when VDC is off, VDC remains off. Upon restarting the engine, the VDC will automatically turn on again.

Indicator lights



When the ignition switch is pressed to the ON position, the VDC indicator light illuminates, then goes off if the VDC system is operating normally.

The VDC indicator light blinks whenever the VDC is operating.

If VDC indicator light stays on, your vehicle may have a malfunction with the VDC system. When this warning light illuminates we recommend that the vehicle be checked by an authorized HYUNDAI dealer as soon as possible.

The VDC OFF indicator light comes on when the VDC is turned off with the button.

WARNING

When the VDC is blinking, this indicates the VDC is active:

Drive slowly and NEVER attempt to accelerate. NEVER turn the VDC off while the VDC indicator light is blinking or you may lose control of the vehicle resulting in an accident.

NOTICE

Driving with varying tire or wheel sizes may cause the VDC system to malfunction. When replacing tires, make sure they are the same size as your original tires for this vehicle.

VDC OFF usage

When Driving

The VDC OFF mode should only be used briefly to help free the vehicle if stuck in snow or mud by temporarily stopping operation of the VDC to maintain wheel torque.

To turn VDC off while driving, press the VDC OFF button while driving on a flat road surface.

NOTICE

To prevent damage to the transaxle:

- **Do not allow wheel(s) of one axle to spin excessively while the VDC, ABS, and 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, ensure the VDC is turned off (VDC OFF light illuminated).**

Information

Turning the VDC off does not affect ABS or standard brake system operation.

Hill-Start Assist Control (HAC) (if equipped)

The Hill-Start Assist Control (HAC) prevents 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 when the accelerator pedal is depressed or after 2 seconds.

WARNING

Always be ready to depress the accelerator pedal when starting off on an incline. The HAC activates only for approximately 2 seconds.

i Information

- The HAC does not operate when the shift lever is in P (Park) or N (Neutral)
- The HAC activates even though the VDC (Vehicle Dynamic Control) is off but does not activate when the VDC has malfunctioned but can not activate when the VDC has malfunctioned.

Emergency Stop Signal (ESS) (if equipped)

The Emergency Stop Signal system alerts the driver behind by blinking the stop light when the vehicle is braked rapidly and severely.

The system is activated when:

- The vehicle suddenly stops (vehicle speed is over 55km/h and the vehicle deceleration is greater than 7 m/s² (Van/Truck) and 5 m/s² (BUS))
- The ABS is activating

When vehicle speed is under 40 km/h and the ABS deactivates or the sudden stop situation is over, the sudden stop situation is over, the stop light will stop blinking. Instead, the hazard warning flasher will turn on automatically.

The hazard warning flasher will turn off when vehicle speed is over 10km/h after the vehicle has stopped. Also, it will turn off when the vehicle is driven at low speed for some time. You can turn it off manually by pushing the hazard warning flasher switch.

i Information

The Emergency Stop Signal (ESS) system will not work if the hazard warning flasher is already on.

Good braking practices

WARNING

Whenever leaving the vehicle or parking, always come to a complete stop and continue to depress the brake pedal. Move the shift lever into the P (Park) position, then apply the parking brake, and place the Engine Start/Stop button in the OFF position.

Vehicles with the parking brake not fully engaged are at risk for moving inadvertently and causing injury to yourself or others.

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.

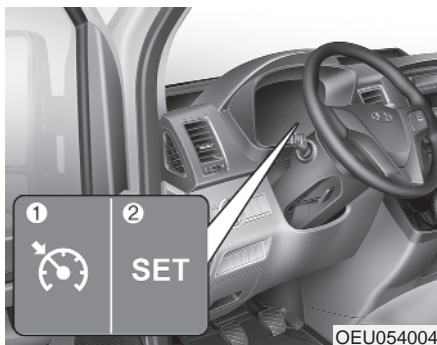
To dry the brakes, apply the brakes lightly until the braking action returns to normal, taking care to keep the vehicle under control at all times. If the braking action does not return to normal, stop as soon as it is safe to do so and we recommend that you call an authorized HYUNDAI dealer for assistance.

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.

CRUISE CONTROL SYSTEM (IF EQUIPPED)



1. Cruise indicator
2. Cruise set indicator

The cruise control system allows you to program the vehicle to maintain a constant speed without pressing the accelerator pedal.

This system is designed to function above approximately 40 km/h (25 mph).

WARNING

- If the cruise control is left on, (CRUISE indicator light in the instrument cluster illuminated), the cruise control can be switched on accidentally. 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 not be safe to keep the vehicle at a constant speed, for instance, driving in heavy or varying traffic, or on slippery (rainy, icy or snow-covered) or winding roads or over 6% up-hill or down-hill roads.

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- Pay particular attention to the driving conditions whenever using the cruise control system.
- Be careful when driving downhill using the cruise control system, which may increase the vehicle speed.

CAUTION

During cruise-speed driving of a manual transmission vehicle, do not shift into neutral without depressing the clutch pedal, since the engine will be over-revved. If this happens, depress the clutch pedal or release the cruise control ON-OFF switch.

NOTICE

During normal cruise control operation, when the SET switch is activated or reactivated after applying the brakes, the cruise control will energize after approximately 3 seconds. This delay is normal.

NOTICE

To activate cruise control, depress the brake pedal at least once after turning the ignition switch to the ON position or starting the engine. This is to check if the brake switch which is important part to cancel cruise control is in normal condition.

Cruise control operation

To set cruise control speed:



1. Push the Cruise ON-OFF symbol button on the steering wheel to turn the system on. The Cruise indicator light in the instrument cluster will illuminate.
2. Accelerate to the desired speed, which must be more than 40 km/h (25 mph).



3. Move the lever (1) down (to -SET), and release it at the desired speed. The SET indicator light in the instrument cluster will illuminate. Release the accelerator pedal. The desired speed will automatically be maintained.

On a steep grade, the vehicle may slow down or speed up slightly while going downhill.

To increase cruise control set speed:



Follow either of these procedures:

- Move the lever (1) up (to +RES) and hold it. Your vehicle will accelerate. Release the lever at the speed you want.
- Move the lever (1) up (to +RES) and release it immediately. The cruising speed will increase by 2.0 km/h (1.2 mph) or 1.6 km/h (1.0 mph) each time you move the lever up (to +RES) in this manner.

To decrease the cruising speed:



Follow either of these procedures:

- Move the lever (1) down (to -SET) and hold it. Your vehicle will gradually slow down. Release the lever at the speed you want to maintain.
- Move the lever (1) down (to -SET) and release it immediately. The cruising speed will decrease by 2.0 km/h (1.2 mph) or 1.6 km/h (1.0 mph) each time you move the lever down (to -SET) in this manner.

To temporarily accelerate with the cruise control on:

If you want to speed up temporarily when the cruise control is on, depress the accelerator pedal. Increased speed will not interfere with cruise control operation or change the set speed.

To return to the set speed, take your foot off the accelerator.

To cancel cruise control, do one of the following:



- Press the brake pedal.
- Press the clutch pedal with a manual transmission.
- Press the CANCEL (○) switch located on the steering wheel.
- Decrease the vehicle speed lower than the memory speed by 15 km/h (9 mph).
- Decrease the vehicle speed to less than approximately 40 km/h (25 mph).

Each of these actions will cancel cruise control operation (the SET indicator light in the instrument cluster will go off), but it will not turn the system off. If you wish to resume cruise control operation, move up the lever (to +RES) located on your steering wheel. You will return to your previously preset speed.

To resume cruising speed at more than approximately 40 km/h (25 mph):



If any method other than the cruise ON/OFF symbol switch was used to cancel cruising speed and the system is still activated, the most recent set speed will automatically resume when you move the lever (1) up (to +RES).

It will not resume, however, if the vehicle speed has dropped below approximately 40 km/h (25 mph).

To turn cruise control off, do one of the following:



- Push the Cruise ON-OFF symbol button (the Cruise indicator light in the instrument cluster will go off).
- Turn the ignition off.

Both of these actions cancel cruise control operation. If you want to resume cruise control operation, repeat the steps provided in "To set cruise control speed" on the previous page.

ADJUSTABLE SPEED LIMIT DEVICE (ASLD) (IF EQUIPPED)

You can set the speed limit when you do not want to drive over a specific speed.

If you drive over the preset speed limit, the warning system operates (set speed limit will blink and chime will sound) until the vehicle speed returns within the speed limit.

NOTICE

While speed limit control is in operation, the cruise control system cannot be activated.

To set speed limit :



1. Press ASLD set button twice on the steering wheel, to turn the system on.



The speed limit indicator light will illuminate.



2. Move the lever down (to -SET).
3. Move the lever up (to +RES) or down (to -SET), and release it at the desired speed. Move the lever up (to +RES) or down (to -SET) and hold it. The speed will increase or decrease by 10 km/h (6 mph).

Move the lever up (to +RES) or down (to -SET) and release it immediately. The speed will increase or decrease by 1 km/h.

The set speed limit will display on the instrument cluster.



The set speed limit will be displayed.

To drive over the preset speed limit temporarily, you must release and then depress on the accelerator pedal again quickly. Then the set speed limit will blink and chime will sound until you return the vehicle speed within the speed limit.

NOTICE

- Depressing the accelerator pedal less than approximately 50%, the vehicle will not speed over the preset speed limit but maintain the vehicle speed within the speed limit.
- A clicking noise heard from the kick down mechanism by depressing the accelerator pedal fully is a normal condition.

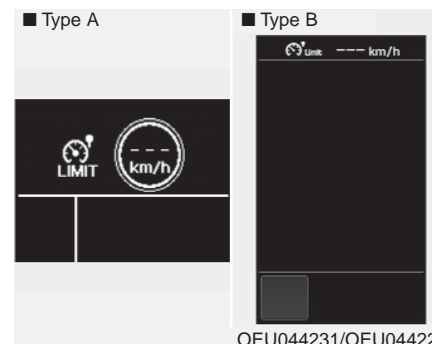
To turn off the speed limit control, do one of the following:



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- Press the cruise switch.
- Turn the ignition off.

If you press the cancel switch once, the set speed limit will cancel, but it will not turn the system off. If you wish to reset the speed limit, move the lever up (to +RES) or down (to -SET) to the desired speed.



OEU044231/OEU044229

CAUTION

The “---” indicator will blink if there is a problem with speed limit control system.

If this occurs, we recommend that the system be checked by an authorized HYUNDAI dealer.

LANE DEPARTURE WARNING SYSTEM (LDWS) (IF EQUIPPED)



This Lane Departure Warning System detects the lane with the sensor at the front windshield and warns you when your vehicle leaves the lane.

WARNING

Take the following precautions when using the Lane Departure Warning System (LDWS):

- The LDWS is only the supplemental system. Pay attention to the road conditions while driving with the LDWS activated. It is the driver's responsibility to control and steer the vehicle.
- **ALWAYS** check the road conditions. The LDWS does not make the vehicle change lanes.
- Do not turn the steering wheel suddenly if the LDWS warns that your vehicle is leaving the lane.
- If the sensor cannot detect the lane or if the vehicle speed does not exceed 60 km/h (38 mph), the LDWS will not be able to notify you if the vehicle leaves the lane.

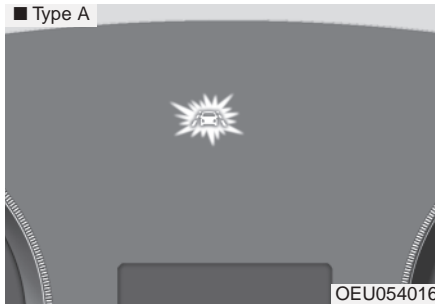
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- If your vehicle has window tint or other types of coating and accessory on the front windshield, the LDWS may not work properly.
- Do not allow any water or liquid to contact the LDWS sensor or the sensor may be damaged.
- Do not remove the LDWS parts and do not damage the sensor by a strong impact.
- Do not put objects that reflect light on the dash board.
- The operation of the LDWS can be affected by several factors (including environmental conditions). It is the responsibility of the driver to pay attention to the roadway and to maintain the vehicle in its lane at all times.

LDWS operation

■ Type A



■ Type B



To operate:

When the key is ON position, the LDWS is operated.

To cancel:

Press the LDWS button, the LDWS is not operated. The indicator on the cluster will go on. (amber)

■ Lane line detected



OEU044153

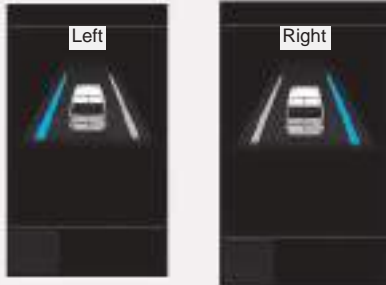
■ Lane line undetected



OEU044154

If the system detects that your vehicle is leaving the lane when the LDWS is operating and vehicle speed exceeds 60km/h, the warning operates as follows:

■ Lane Departure Warning



OEU044155/OEU044157

1. Visual warning

If you leave the lane, the lane line you leave on the LCD display blinks yellow.

Warning indicator

■ Type A



OEU054016

■ Type B



OEU054017

If the LDWS fails, the warning indicator (yellow) comes on indicating the LDWS is not working properly. We recommend that you take your vehicle to an authorized HYUNDAI dealer and have the system checked.

The LDWS does not operate when:

- The driver turns on the turn signal to change lanes or operates the hazard warning flasher.
- Driving on the lane line.

NOTICE

Always operate the turn signal before changing lanes.

DRIVER'S ATTENTION

The LDWS may not warn you even if the vehicle leaves the lane, or may warn you even if the vehicle does not leave the lane when:

- The lane can't be visible due to snow, rain, stain, a puddle or other factors.
- The brightness outside changes suddenly such as tunnel enter/exit.
- The headlamps are not on at night or in a tunnel, or light level is low.
- It is difficult to distinguish the color of the lane marking from the road or the lane line is damaged or indistinct.
- Driving on a steep grade or a curve.
- Light such as street light, sunlight or oncoming vehicle light reflects from the water on the road.
- The lens or windshield is covered with foreign matter.
- The sensor cannot detect the lane because of fog, heavy rain, or heavy snow.

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- The surrounding of the inside rear view mirror temperature is high due to direct sun light.
- The lane is very wide or narrow.
- The windshield is fogged by humid air in the vehicle.
- A shadow is on the lane line.
- There is a mark that looks like a lane line.
- There is a boundary structure, such as a concrete barrier.
- The distance from the vehicle ahead is very short or the vehicle ahead drives covering the lane line.
- The vehicle vibrates heavily due to road conditions.
- The number of lanes increases or decreases or the lane lines are crossing.
- Putting something on the dashboard.
- Driving with the sun in front of you.
- Driving in areas under construction.
- There are more than two lane lines.

ACTIVE ECO SYSTEM (IF EQUIPPED)

Active ECO operation



Active ECO helps improve fuel efficiency by controlling the engine. But fuel-efficiency can be changed by the driver's driving habits and road conditions.

- When the Active ECO button is pressed the ECO indicator (green) will illuminate to show that the Active ECO is operating.

- When the Active ECO is activated, it does not turn off even though the engine is restarted again. To turn off the system, press the active ECO button again.
- If Active ECO is turned off, it will return to the ECO mode.

When Active ECO is activated:

- Vehicle speed may drop.
- When driving up a hill, you may feel the engine torque change.

Limitation of Active ECO operation :

If the following conditions occur while Active ECO 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 the engine torque is restricted.

PTO SWITCH (IF EQUIPPED)



This is the switch of the PTO (Power Take Off) which takes off the power from the transmission.

To activate the P.T.O. system

1. Stop the vehicle. Then, apply the parking brake.
2. Depress the clutch pedal to disconnect the power. Wait for 2 to 3 seconds. Press ON the P.T.O. switch. Then, slowly take your foot off the clutch pedal.
3. Make sure that the P.T.O indicator illuminates on the cluster.

To deactivate the P.T.O. system

1. Depress the clutch pedal. Press OFF the P.T.O. switch. Then, slowly take your foot off the clutch pedal.
2. Make sure that the P.T.O indicator goes OFF on the cluster.

 **WARNING**

- **When the power is still connected, activating the P.T.O. system may incur deadly damage to the gear.**
- **The P.T.O. system should be activated within the permissible torque.**
 - **Activation of the P.T.O., going beyond the permissible maximum torque, may incur deadly damage to the P.T.O. gear and transmission.**
- **Before activating the P.T.O. system, depress the clutch pedal, when the P.T.O switch is pressed OFF. (For the manual transmission.)**
 - **The P.T.O. gear may be damaged and become uncontrollable.**

ECONOMICAL OPERATION

Your vehicle's fuel economy depends mainly on your style of driving, where you drive and when you drive.

Each of these factors affects how many kilometers (miles) you can get from a liter (gallon) of fuel. To operate your vehicle as economically as possible, use the following driving suggestions to help save money in both fuel and repairs:

- Drive smoothly. Accelerate at a moderate rate. Don't make "jack-rabbit" starts or full-throttle shifts and maintain a steady cruising speed. Don't race between stop-lights. Try to adjust your speed to the traffic so you don't have to change speeds unnecessarily. Avoid heavy traffic whenever possible. Always maintain a safe distance from other vehicles so you can avoid unnecessary braking. This also reduces brake wear.
- Drive at a moderate speed. The faster you drive, the more fuel your vehicle uses. Driving at a moderate speed, especially on the highway, is one of the most effective ways to reduce fuel consumption.
- Don't "ride" the brake or clutch pedal. This can increase fuel consumption and also increase wear on these components. In addition, driving with your foot resting on the brake pedal may cause the brakes to overheat, which reduces their effectiveness and may lead to more serious consequences.
- Take care of your tires. Keep them inflated to the recommended pressure. Incorrect inflation, either too much or too little, results in unnecessary tire wear. Check the tire pressures at least once a month.
- Be sure that the wheels are aligned correctly. Improper alignment can result from hitting curbs or driving too fast over irregular surfaces. Poor alignment causes faster tire wear and may also result in other problems as well as greater fuel consumption.

- Keep your vehicle in good condition. For better fuel economy and reduced maintenance costs, maintain your vehicle in accordance with the maintenance schedule in Section 7. If you drive your vehicle in severe conditions, more frequent maintenance is required (see Section 7 for details).
- Keep your vehicle clean. For maximum service, your vehicle should be kept clean and free of corrosive materials. It is especially important that mud, dirt, ice, etc. not be allowed to accumulate on the underside of the vehicle. This extra weight can result in increased fuel consumption and also contribute to corrosion.
- Travel lightly. Don't carry unnecessary weight in your vehicle. Weight reduces fuel economy.
- Don't let the engine idle longer than necessary. If you are waiting (and not in traffic), turn off your engine and restart only when you're ready to go.
- Remember, your vehicle does not require extended warm-up. After the engine has started, allow the engine to run for 10 to 20 seconds prior to placing the vehicle in gear. In very cold weather, however, give your engine a slightly longer warm-up period.
- Don't "lug" or "over-rev" the engine. Lugging is driving too slowly in too high a gear resulting engine bucking. If this happens, shift to a lower gear. Over-revving is racing the engine beyond its safe limit. This can be avoided by shifting at the recommended speeds.
- Use your air conditioning sparingly. The air conditioning system is operated by engine power so your fuel economy is reduced when you use it.
- Open windows at high speeds can reduce fuel economy.
- Fuel economy is less in crosswinds and headwinds. To help offset some of this loss, slow down when driving in these conditions.

Keeping a vehicle in good operating condition is important both for economy and safety. Therefore, we recommend that you contact an authorized HYUNDAI dealer to perform scheduled inspections and maintenance.

WARNING

Engine off during motion

Never turn the engine off to coast down hills or anytime the vehicle is in motion. The power steering and power brakes will not function properly without the engine running. Instead, keep the engine on and down-shift to an appropriate gear for engine braking effect. In addition, turning off the ignition while driving could engage the steering wheel lock resulting in loss of vehicle steering which could cause serious injury or death.

SPECIAL DRIVING CONDITIONS

Hazardous driving conditions

When hazardous driving conditions are encountered such as water, snow, ice, mud, sand, or similar hazards, follow these suggestions:

- Drive cautiously and allow extra distance for braking.
- Avoid sudden braking or steering.
- When braking with non-ABS brakes pump the brake pedal with a light up-and-down motion until the vehicle is stopped.
- If stalled in snow, mud, or sand, use second gear. Accelerate slowly to avoid spinning the drive wheels.
- Use sand, rock salt, tire chains, or other non-slip material under the drive wheels to provide traction when stalled in ice, snow, or mud.

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 1st (First) and R (Reverse) in vehicles equipped with a manual transmission. Do not race the engine, and spin the wheels as little as possible. If you are still stuck after a few tries, have the vehicle pulled out by a tow vehicle to avoid engine overheating and possible damage to the transmission.

NOTICE

Prolonged rocking may cause engine over-heating, transmission damage or failure, and tire damage.

WARNING

Spinning tires

Do not spin the wheels, especially at speeds more than 56 km/h (35 mph). Spinning the wheels at high speeds when the vehicle is stationary could cause a tire to overheat which could result in tire damage that may injure bystanders.

Information

The VDC system (if equipped) should be turned OFF prior to rocking the vehicle.

 **WARNING**

If your vehicle becomes stuck in snow, mud, sand, etc., then you may attempt to rock the vehicle free by moving it forward and backward. Do not attempt this procedure if people or objects are anywhere near the vehicle. During the rocking operation the vehicle may suddenly move forward or backward as it becomes unstuck, causing injury or damage to nearby people or objects.

 **WARNING**

ABS

Do not pump the brake pedal on a vehicle equipped with ABS.

Smooth cornering

Avoid braking or gear changing in corners, especially when roads are wet. Ideally, corners should always be taken under gentle acceleration. If you follow these suggestions, tire wear will be held to a minimum.

Driving at night

Because 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 driver's headlights.
- Keep your headlights clean and properly aimed on vehicles not equipped with the automatic headlight aiming feature. Dirty or improperly aimed headlights will make it much more difficult to see at night.
- Avoid staring directly at the headlights of oncoming vehicles. You could be temporarily blinded, and it will take several seconds for your eyes to readjust to the darkness.

Driving in the rain

Rain and wet roads can make driving dangerous, especially if you're not prepared for the slick pavement. Here are a few things to consider when driving in the rain:

- A heavy rainfall will make it harder to see and will increase the distance needed to stop your vehicle, so slow down.
- Keep your windshield wiping equipment in good shape. Replace your windshield wiper blades when they show signs of streaking or missing areas on the windshield.
- If your tires are not in good condition, making a quick stop on wet pavement can cause a skid and possibly lead to an accident. Be sure your tires are in good shape.
- Turn on your headlights to make it easier for others to see you.
- Driving too fast through large puddles can affect your brakes. If you must go through puddles, try to drive through them slowly.

- If you believe you may have gotten your brakes wet, apply them lightly while driving until normal braking operation returns.

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 affected.

After driving through water, dry the brakes by gently applying them several times while the vehicle is moving slowly.

Driving off-road

Drive carefully off-road because your vehicle may be damaged by rocks or roots of trees. Become familiar with the off-road conditions where you are going to drive before you begin driving.

Highway driving

Tires:

Adjust the tire inflation pressures to specification. Low tire inflation pressures will result in overheating and possible failure of the tires.

Avoid using worn or damaged tires which may result in reduced traction or tire failure.

NOTICE

Never exceed the maximum tire inflation pressure shown on the tires.

⚠ WARNING

- **Underinflated or overinflated tires can cause poor handling, loss of vehicle control, and sudden tire failure leading to accidents, injuries, and even death. Always check the tires for proper inflation before driving. For proper tire pressures, refer to section 8, “Tires and wheels”.**
- **Driving on tires with no or insufficient tread is dangerous. Worn-out tires can result in loss of vehicle control, collisions, injury, and even death. Worn-out tires should be replaced as soon as possible and should never be used for driving. Always check the tire tread before driving your vehicle. For further information and tread limits, refer to section 7, “Tires and wheels”.**

Fuel, engine coolant and engine oil:

High speed travel consumes more fuel than urban motoring. Do not forget to check both engine coolant and engine oil.

Drive belt:

A loose or damaged drive belt may result in overheating of the engine.

WINTER DRIVING

The more severe weather conditions of winter result in greater wear and other problems. To minimize the problems of winter driving, you should follow these suggestions:

Snowy or Icy conditions

To drive your vehicle in deep snow, it may be necessary to use snow tires or to install tire chains on your tires. If snow tires are needed, it is necessary to select tires equivalent in size and type of the original equipment tires. Failure to do so may adversely affect the safety and handling of your vehicle. Furthermore, 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. You need to keep sufficient distance between the vehicle in operation in front and your vehicle. Also, apply the brake gently. It should be noted that installing tire chains on the tire will provide a greater driving force, but will not prevent side skids.

Information

Tire chains are not legal in all countries. Check the country laws before fitting tire chains.

Snow tires

If you mount snow tires on your vehicle, make sure they are 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. Keep in mind that the traction provided by snow tires on dry roads may not be as high as your vehicle's original equipment tires. You should drive cautiously even when the roads are clear. Check with the tire dealer for maximum speed recommendations.

WARNING

Snow tire size

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.

Do not install studded tires without first checking local, state and municipal regulations for possible restrictions against their use.

Tire chains



Since the sidewalls of radial tires are thinner, they can be damaged by mounting some types of snow chains on them. Therefore, the use of snow tires is recommended instead of snow chains. Do not mount tire chains on vehicles equipped with aluminum wheels; snow chains may cause damage to the wheels. If snow chains must be used, use wire-type chains with a thickness of less than 15 mm (0.59 in). Damage to your vehicle caused by improper snow chain use is not covered by your vehicle manufacturers warranty.

When using tire chains, attach them to the drive wheels as follows.

2WD : Rear wheels

CAUTION

- **Make sure the snow chains are the correct size and type for your tires. Incorrect snow chains can cause damage to the vehicle body and suspension and may not be covered by your vehicle manufacturer warranty. Also, the snow chain connecting hooks may be damaged from contacting vehicle components causing the snow chains to come loose from the tire. Make sure the snow chains are SAE class “S” certified.**
- **Always check chain installation for proper mounting after driving approximately 0.5 to 1 km (0.3 to 0.6 miles) to ensure safe mounting. Retighten or remount the chains if they are loose.**

Chain installation

When installing chains, follow the manufacturer's instructions and mount them as tightly as you can. Drive slowly 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 it stops. Remove the chains as soon as you begin driving on cleared roads.

WARNING

Mounting chains

When mounting snow chains, park the vehicle on level ground away from traffic. Turn on the vehicle Hazard Warning flashers 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.

 **WARNING**

Tire chains

- **The use of chains may adversely affect vehicle handling.**
- **Do not exceed 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.**

NOTICE

- **Chains that are the wrong size or improperly installed can damage your vehicle's brake lines, suspension, body and wheels.**
- **Stop driving and retighten the chains any time you hear them hitting the vehicle.**

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 section 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 puts additional burdens on the battery system. Visually inspect the battery and cables as described in section 7. We recommend that the system be checked by an authorized HYUNDAI dealer.

Change to "winter weight" oil if necessary

In some climates it is recommended that a lower viscosity "winter weight" oil be used during cold weather. See section 8 for recommendations. If you aren't sure what weight oil you should use, we recommend that you consult an authorized HYUNDAI dealer.

Check spark plugs and ignition system

Inspect your spark plugs as described in section 7 and replace them if necessary. Also check all ignition wiring and components to be sure they are not cracked, worn or damaged in any way.

To keep locks from freezing

To keep the locks from freezing, squirt an approved de-icer fluid or glycerin into the key opening. If a lock is covered with ice, squirt it with an approved de-icing fluid to remove the ice. If the lock is frozen internally, you may be able to thaw it out by using a heated key. Handle the heated key with care to avoid injury.

Use approved window washer anti-freeze in system

To keep the water in the window washer system from freezing, add an approved window washer anti-freeze solution in accordance with instructions on the container. Window washer anti-freeze is available from an authorized HYUNDAI dealer and most auto parts outlets. Do not use engine coolant or other types of anti-freeze as these may damage the paint finish.

Don't 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. If there is a risk the parking brake may freeze, apply it only temporarily while you put the shift lever in first or reverse gear and block the rear wheels so the vehicle cannot roll. Then release the parking brake.

Don't 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 severe winter conditions where this may happen, you should periodically check underneath the vehicle to be sure the movement of the front wheels and the steering components is not obstructed.

Carry emergency equipment

Depending on the severity of the weather, you should carry appropriate emergency equipment. Some of the items you may want to carry include tire chains, tow straps or chains, flashlight, emergency flares, sand, a shovel, jumper cables, a window scraper, gloves, ground cloth, coveralls, a blanket, etc.

TRAILER TOWING

If you are considering to tow with your vehicle, you should first check with your country's Department of Motor Vehicles to determine legal requirements. Since laws vary the requirements for towing trailers, vehicles, or other types of vehicles or apparatus may differ. Ask an authorized HYUNDAI dealer for further details before towing.

Remember that trailering is different than just driving your vehicle by itself. Trailering means changes in handling, durability, and fuel economy. Successful, safe trailering requires correct equipment, and it has to be used properly. Damage to your vehicle caused by improper trailer towing is not covered by your vehicle manufacturer's warranty.

This section contains many time-tested, important trailering tips and safety rules. Many of these are important for your safety and that of your passengers. Please read this section carefully before you pull a trailer.

WARNING

Take the following precautions:

- **If you don't use the correct equipment and/or drive improperly, you can lose control of the vehicle when you are pulling a trailer. For example, if the trailer is too heavy, the braking performance may be reduced. You and your passengers could be seriously or fatally injured. Pull a trailer only if you have followed all the steps in this section.**
- **Before towing, make sure the total trailer weight, GCW (Gross Combination Weight), GVW (Gross Vehicle Weight), GAW (Gross Axle Weight) and trailer tongue load are all within the limits.**

CAUTION

- **Pulling a trailer improperly can damage your vehicle and result in costly repairs not covered by your warranty. To pull a trailer correctly, follow the advice in this section.**
- **The driver should check the rearview, which is blocked by the load compartment, while driving backward. If you are not sure about the safety, you should ask another person to check the rearview and guide your driving.**

Your vehicle can tow a trailer. To identify what the vehicle trailering capacity is for your vehicle, you should read the information in “Weight of the trailer” that appears later in this section.

Remember that trailering is different than just driving your vehicle by itself. Trailering means changes in handling, durability, and fuel economy. Successful, safe trailering requires correct equipment, and it has to be used properly.

This section contains many time-tested, important trailering tips and safety rules. Many of these are important for your safety and that of your passengers. Please read this section carefully before you pull a trailer.

Load-pulling components such as the engine, transmission, wheel assemblies, and tires are forced to work harder against the load of the added weight. The engine is required to operate at relatively higher speeds and under greater loads. This additional burden generates extra heat. The trailer also adds considerably to wind resistance, increasing the pulling requirements.

Tow bar wiring(if equipped)

In combination with genuine tow bar wiring harness, the Factory-installed Rear Park Distance control (Rear PDC) get switched off, as soon as a trailer is connected to the towing hitch wiring connector and driving backwards (only for Vehicles with prepared connector).

Safety chains (if equipped)

You should always attach chains between your vehicle and your trailer. Cross the safety chains under the tongue of the trailer so that the tongue will not drop to the road if it becomes separated from the hitch.

Instructions about safety chains may be provided by the hitch manufacturer or by the trailer manufacturer. Follow the manufacturer's recommendation for attaching safety chains. Always leave just enough slack so you can turn with your trailer. And, never allow safety chains to drag on the ground.

Trailer brakes

If your trailer is equipped with a braking system, make sure it conforms to your country's regulations and that it is properly installed and operating correctly.

If your trailer weight exceeds the maximum allowed weight without trailer brakes, then the trailer will also require its own brakes as well. Be sure to read and follow the instructions for the trailer brakes so you'll be able to install, adjust and maintain them properly.

- Don't tap into or modify your vehicle's brake system.

NOTICE

The trailer brake should be mounted to the fixation point at the trailer tow bar.

WARNING

Do not use a trailer with its own brakes unless you are absolutely certain that you have properly set up the brake system. This is not a task for amateurs. Use an experienced, competent trailer shop for this work.

Driving with a trailer

Towing a trailer requires a certain amount of experience. Before setting out for the open road, you must get to know your trailer. Acquaint yourself with the feel of handling and braking with the added weight of the trailer. And always keep in mind that the vehicle you are driving is now a good deal longer and not nearly so responsive as your vehicle is by itself.

Before you start, check the trailer hitch and platform, safety chains, electrical connector(s), lights, tires and mirror adjustment. If the trailer has electric brakes, start your vehicle and trailer moving and then apply the trailer brake controller by hand to be sure the brakes are working. This lets you check your electrical connection at the same time.

During your trip, check occasionally to be sure that the load is secure, and that the lights and any trailer brakes are still working.

Following distance

Stay at least twice as far behind the vehicle ahead as you would when driving your vehicle without a trailer. This can help you avoid situations that require heavy braking and sudden turns.

Passing

You'll need more passing distance up ahead when you're towing a trailer. And, because of the increased vehicle length, you'll need to go much farther beyond the passed vehicle before you can return to your lane.

Backing up

Hold the bottom of the steering wheel with one hand. Then, to move the trailer to the left, just move your hand to the left. To move the trailer to the right, move your hand to the right. Always back up slowly and, if possible, have someone guide you.

Making turns

When you're turning with a trailer, make wider turns than normal. Do this so your trailer won't strike soft shoulders, curbs, road signs, trees, or other objects. Avoid jerky or sudden maneuvers. Signal well in advance.

Turn signals when towing a trailer

When you tow a trailer, your vehicle has to have a different turn signal flasher and extra wiring. The green arrows on your instrument panel will flash whenever you signal a turn or lane change. Properly connected, the trailer lights will also flash to alert other drivers you're about to turn, change lanes, or stop.

When towing a trailer, the green arrows on your instrument panel will flash for turns even if the bulbs on the trailer are burned out. Thus, you may think drivers behind you are seeing your signals when, in fact, they are not. It's important to check occasionally to be sure the trailer bulbs are still working. You must also check the lights every time you disconnect and then reconnect the wires.

The ECU of the tow bar wiring harness warns the driver about the burned-out bulbs on the trailer by flashing the green arrows on the instrument panel with the warning sound.

Do not connect a trailer lighting system directly to your vehicle's lighting system. Use only an approved trailer wiring harness.

An authorized HYUNDAI dealer can assist you in installing the wiring harness.

WARNING

Failure to use an approved trailer wiring harness could result in damage to the vehicle electrical system and/or personal injury.

Driving on grades

Reduce speed and shift to a lower gear before you start down a long or steep downgrade. If you don't shift down, you might have to use your brakes so much that they would get hot and no longer operate efficiently.

On a long uphill grade, shift down and reduce your speed to around 70 km/h (45 mph) to reduce the possibility of engine and transmission overheating.

If your trailer weighs more than the maximum trailer weight without trailer brakes.

 **CAUTION**

- **When towing a trailer on steep grades (in excess of 6%) pay close attention to the engine coolant temperature gauge to ensure the engine does not overheat.**

If the needle of the coolant temperature gauge moves across the dial towards “H” (HOT), pull over and stop as soon as it is safe to do so, and allow the engine to idle until it cools down. You may proceed once the engine has cooled sufficiently.

- **You must decide driving speed depending on trailer weight and uphill grade to reduce the possibility of engine and transmission overheating.**

Parking on hills

Generally, if you have a trailer attached to your vehicle, you should not park your vehicle on a hill. People can be seriously or fatally injured, and both your vehicle and the trailer can be damaged if unexpectedly roll down hill.

 **WARNING**

Parking on a hill

Parking your vehicle on a hill with a trailer attached could cause serious injury or death, should the trailer break loose.

However, if you ever have to park your trailer on a hill, here's how to do it:

1. Pull the vehicle into the parking space. Turn the steering wheel in the direction of the curb (right if headed down hill, left if headed up hill).
2. If the vehicle has a manual transmission, place the vehicle in neutral.
3. Set the parking brake and shut off the vehicle.
4. Place chocks under the trailer wheels on the down hill side of the wheels.
5. Start the vehicle, hold the brakes, shift to neutral, release the parking brake and slowly release the brakes until the trailer chocks absorb the load.
6. Reapply the brakes, reapply the parking brake and shift the vehicle to R (Reverse) for manual transmission.
7. Shut off the vehicle and release the vehicle brakes but leave the parking brake set.

WARNING

Parking brake

It can be dangerous to get out of your vehicle if the parking brake is not firmly set.

If you have left the engine running, the vehicle can move suddenly. You or others could be seriously or fatally injured.

When you are ready to leave after parking on a hill

1. With the manual transmission in Neutral, apply your brakes and hold the brake pedal down while you:
 - Start your engine;
 - Shift into gear; and
 - Release the parking brake.
2. Slowly remove your foot from the brake pedal.
3. Drive slowly until the trailer is clear of the chocks.
4. Stop and have someone pick up and store the chocks.

Maintenance when trailer towing

Your vehicle will need service more often when you regularly pull a trailer. Important items to pay particular attention to include engine oil, axle lubricant and cooling system fluid. Brake condition is another important item to frequently check. Each item is covered in this manual, and the Index will help you find them quickly. If you're trailering, it's a good idea to review these sections before you start your trip.

Don't forget to also maintain your trailer and hitch. Follow the maintenance schedule that accompanied your trailer and check it periodically. Preferably, conduct the check at the start of each day's driving. Most importantly, all hitch nuts and bolts should be tight.

 **CAUTION**

To prevent vehicle damage :

- **Due to higher load during trailer usage, overheating might occur in hot days or during uphill driving. If the coolant gauge indicates overheating, switch off the A/C and stop the vehicle in a safe area to cool down the engine.**
- **When towing check transmission fluid more frequently.**
- **If your vehicle is not equipped with the air conditioner, you should install a condenser fan to improve engine performance when towing a trailer.**

If you do decide to pull a trailer

Here are some important points if you decide to pull a trailer:

- Consider using a sway control. You can ask a hitch dealer about sway control.
- Do not do any towing with your vehicle during its first 2,000 km (1,200 miles) in order to allow the engine to properly break in. Failure to heed this caution may result in serious engine or transmission damage.
- When towing a trailer, we recommend that you consult an authorized HYUNDAI dealer on additional requirements such as a towing kit, etc.
- Always drive your vehicle at a moderate speed (Max speed for standard trailer is 80 km/h (50 mph)).
* Special trailer 100 km/h (60 mph) is allowed but trailer need special approval from TÜV.

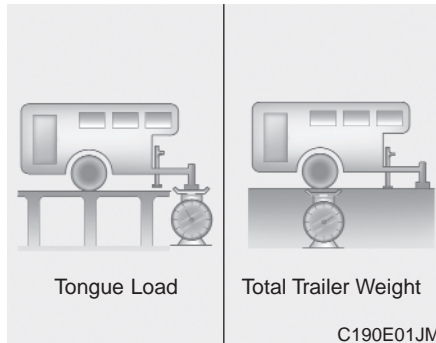
- On a long uphill grade, do not exceed 70 km/h (45 mph) or the posted towing speed limit, whichever is lower.
- Fuel consumption will increase due to the additional required power to tow trailer and additional transportation weight at the trailer.

- The chart contains important considerations that have to do with weight:

Item		Bus	Van				Truck	
			N1*1		N2*1		Long	Short
		Long	Long	Short	Long	Short		
Overall length	mm(inch)	6,195 (243.9)	6,195 (243.9)	5,515 (217.1)	6,195 (243.9)	5,515 (217.1)	6,167 (242.8)	5,724 (225.4)
Maximum trailer weight	Without brake System	750 (1,653)	750 (1,653)	750 (1,653)	750 (1,653)	750 (1,653)	750 (1,653)	750 (1,653)
	With brake System	2,500 (5,511)	3,000 (6,613)	3,000 (6,613)	2,500 (5,511)	2,500 (5,511)	3,000 (6,613)	3,000 (6,613)
Maximum permissible static vertical load on the coupling device	kg(lbs.)	100 (220)	120 (264)	120 (264)	100 (220)	100 (220)	120 (264)	120 (264)
Recommended distance from rear wheel center to coupling point	mm(inch)	1,686 (66.4)	1,686 (66.4)	1,241 (48.9)	1,686 (66.4)	1,241 (48.9)	1,756 (69.1)	1,548 (60.9)

* *1 : N1:GVW ≤ 3.5 ton, N2 : 3.5 ton < GVW <12 ton

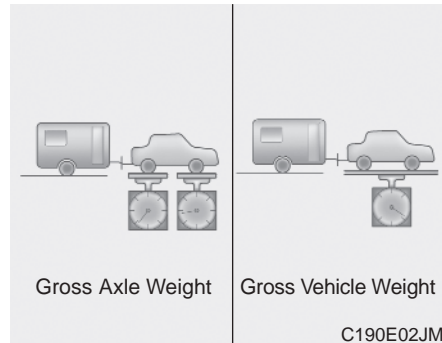
Trailer weight



How heavy can a trailer safely be? It should never weigh more than the maximum trailer weight with trailer brakes. But even that can be too heavy.

It depends on how you plan to use your trailer. For example, speed, altitude, road grades, outside temperature and how often your vehicle is used to pull a trailer are all important. The ideal trailer weight can also depend on any special equipment that you have on your vehicle.

Tongue load



The tongue load of any trailer is an important weight to measure because it affects the total gross vehicle weight (GVW) of your vehicle. This weight includes the curb weight of the vehicle, any cargo you may carry in it, and the people who will be riding in the vehicle. And if you will tow a trailer, you must add the tongue load to the GVW because your vehicle will also be carrying that weight.

The trailer tongue should weigh a maximum of 10% of the total loaded trailer weight, within the limits of the maximum permissible trailer tongue load. After you've loaded your trailer, weigh the trailer and then the tongue, separately, to see if the weights are proper. If they aren't, you may be able to correct them simply by moving some items around in the trailer.

 **WARNING**

Take the following precautions:

- **Never load a trailer with more weight in the rear than in the front. The front should be loaded with approximately 60% of the total trailer load; the rear should be loaded with approximately 40% of the total trailer load.**
- **Never exceed the maximum weight limits of the trailer or trailer towing equipment. Improper loading can result in damage to your vehicle and/or personal injury. Check weights and loading at a commercial scale or highway patrol office equipped with scales.**
- **An improperly loaded trailer can cause loss of vehicle control.**

VEHICLE WEIGHT

This section will guide you in the proper loading of your vehicle and/or trailer, to keep your loaded vehicle weight within its design rating capability, with or without a trailer. Properly loading your vehicle will provide maximum return of the vehicle design performance. Before loading your vehicle, familiarize yourself with the following terms for determining your vehicle's weight ratings, with or without a trailer, 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.

Overloading

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.

LOCKING DIFFERENTIAL (IF EQUIPPED)

A locking differential, if equipped, is for the rear wheel differential only. The features of this locking differential are described below:

Just as with a conventional differential, the wheel on one side is allowed to turn at a different speed from the wheel on the other side when the vehicle is cornering. The difference between the locking differential and a conventional differential is that if the wheel on one side of the vehicle loses traction, a greater amount of torque is applied to the rear wheel on the other side to improve traction.

Information

In a stationary position, the LD (Locking Differential) will operate when the difference of the revolution speed between the rear right wheel and the rear left wheel occurs.

The following procedures can be used to confirm that the locking differential is functioning properly:

- (1) Position the vehicle so that one wheel is on a dry paved surface and the other on ice, snow, mud, etc. Drive the vehicle, and observe the operation of the locking differential. The vehicle should not become stuck if the differential is functioning properly.
- (2) Depress the accelerator pedal gradually, and then when traction is good, depress it forcefully. If the vehicle accelerates well, the differential is functioning properly.

i Information

Usually a locking differential will operate and release automatically but occasionally it may not release automatically.

At this time you will feel the tire is dragged when you are driving or cornering. You can release it manually by slightly turning the steering wheel right and left while the vehicle is moving slowly.

CAUTION

- **Never start the engine with the gearshift lever placed in the forward or reverse while one of the rear wheels is jacked up and the other in contact with the ground; doing so may cause the vehicle to jump forward.**
- **If one of the rear wheels begins to spin in mud, snow, etc., the vehicle can sometimes be driven out by depressing the accelerator pedal further; however, avoid running the engine continuously at high rpm because doing so could damage the locking differential.**

What to do in an emergency

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ROAD WARNING

Hazard warning flasher



The hazard warning flasher serves as a warning to other drivers to exercise extreme caution when approaching, overtaking, or passing your vehicle.

It should be used whenever emergency repairs are being made or when the vehicle is stopped near the edge of a roadway.

Depress the flasher switch with the ignition switch in any position. The flasher switch is located in the center console switch panel. All turn signal lights will flash simultaneously.

- The hazard warning flasher operates whether your vehicle is running or not.
- The turn signals are available without turning off the hazard.
- Care must be taken when using the hazard warning flasher while the vehicle is being towed.

IN CASE OF AN EMERGENCY WHILE DRIVING

If the engine stalls at a crossroad or crossing

- If the engine stalls at a crossroad or crossing, set the shift lever in the N (Neutral) position and then push the vehicle to a safe place.
- If your vehicle has a manual transmission not equipped with a ignition lock switch, the vehicle can move forward by shifting to the 2(second) or 3(third) gear and then turning the starter without depressing the clutch pedal.

If you have a flat tire while driving

If a tire goes flat while you are driving:

1. 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 a loss of control. 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.
2. When the vehicle is stopped, turn on your emergency hazard flashers, set the parking brake and put the transmission in reverse.
3. 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.
4. When changing a flat tire, follow the instruction provided later in this section.

If engine stalls while driving

1. Reduce your speed gradually, keeping a straight line. Move cautiously off the road to a safe place.
2. Turn on your emergency flashers.
3. Try to start the engine again. If your vehicle will not start, we recommend that you contact an authorized HYUNDAI dealer.

IF THE ENGINE WILL NOT START

If engine doesn't turn over or turns over slowly

1. Check the battery connections to be sure they are clean and tight.
2. Turn on the interior light. If the light dims or goes out when you operate the starter, the battery is discharged.
3. Check the starter connections to be sure they are securely tightened.
4. Do not push or pull the vehicle to start it. See instructions for "Jump starting".

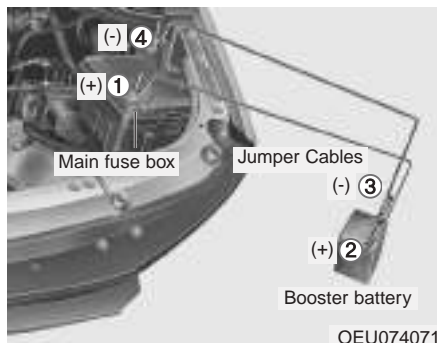
WARNING

If the engine will not start, do not push or pull the vehicle to start it. This could result in a collision or cause other damage. In addition, push or pull starting may cause the catalytic converter to be overloaded and create a fire hazard.

If engine turns over normally but does not start

1. Check fuel level.
2. With the ignition switch in the LOCK/ OFF position, check all connectors at ignition, coil and spark plugs. Reconnect any that may be disconnected or loose.
3. Check the fuel line in the engine compartment.
4. If the engine still does not start, we recommend that you call an authorized HYUNDAI dealer.

EMERGENCY STARTING



Connect cables in numerical order and disconnect in reverse order.

Jump starting

Jump starting can be dangerous if done incorrectly. Therefore, to avoid harm to yourself or damage to your vehicle or battery, follow the jump starting procedures. If in doubt, we strongly recommend that you have a competent technician or towing service jump start your vehicle.



CAUTION

Use only a 12-volt jumper system. You can damage a 12-volt starting motor, ignition system, and other electrical parts beyond repair by use of a 24-volt power supply (either two 12-volt batteries in series or a 24-volt motor generator set).

 **WARNING**

Battery

- Never attempt to check the electrolyte level of the battery as this may cause the battery to rupture or explode causing serious injury.
- Never attempt to open the AGM type battery.

 **WARNING**

Battery

- Keep all flames or sparks away from the battery. The battery produces hydrogen gas which may explode if exposed to flame or sparks.
- If these instructions are not followed exactly, serious personal injury and damage to the vehicle may occur! If you are not sure how to follow this procedure, seek qualified assistance. Automobile batteries contain sulfuric acid. This is poisonous and highly corrosive. When jump starting, wear protective glasses and be careful not to get acid on yourself, your clothing or on the vehicle.
- Do not attempt to jump start the vehicle if the discharged battery is frozen or if the electrolyte level is low; the battery may rupture or explode.

(Continued)

(Continued)

- 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.

Jump starting procedure

 **CAUTION**

AGM battery (if equipped)

- Absorbent Glass Matt (AGM) batteries are maintenance-free and we recommend that the system 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.

(Continued)

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- If the AGM battery is reconnected or replaced, ISG function will not operate immediately.

If you want to use the ISG function, the battery sensor needs to be calibrated for approximately 4 hours with the ignition off.

- During the period, the dark current must be under 100 mA.

1. Make sure the booster battery is 12-volt and that its negative terminal is grounded.
2. If the booster battery is in another vehicle, do not allow the vehicles to touch.
3. Turn off all unnecessary electrical loads.
4. Connect the jumper cables in the exact sequence shown in the illustration. First connect one end of a jumper cable to the positive terminal of the main fuse box (1), then connect the other end to the positive terminal on the booster battery (2).

Proceed to connect one end of the other jumper cable to the negative terminal of the booster battery (3), then the other end to a solid, stationary, metallic point (for example, the engine lifting bracket) away from the negative battery terminal (4). Do not connect it to or near any part that moves when the engine is cranked.

Do not allow the jumper cables to contact anything except the correct battery terminals or the correct ground. Do not lean over the battery when making connections.

 **CAUTION**

Battery cables

Do not connect the jumper cable from the negative terminal of the booster battery to the negative terminal of the discharged battery. This can cause the discharged battery to overheat and crack, releasing battery acid.

5. Start the engine of the vehicle with the booster battery and let it run at 2,000 rpm, then start the engine of the vehicle with the discharged battery.

If the cause of your battery discharging is not apparent, we recommend that the system be checked by an authorized HYUNDAI dealer.

Push-starting

Your manual transmission-equipped vehicle should not be push-started because it might damage the emission control system.

WARNING

Never tow a vehicle to start it because the sudden surge forward when the engine starts could cause a collision with the tow vehicle.

IF THE ENGINE OVERHEATS

If your temperature gauge indicates overheating, you experience a loss of power, or hear loud pinging or knocking, the engine is probably too hot. If this happens, you should:

1. Pull off the road and stop as soon as it is safe to do so.
2. Place the shift lever in neutral 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.

4. Check to see if the water pump drive belt is missing. If it is not missing, check to see that it is tight. If the drive belt seems to be satisfactory, 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).

WARNING

While the engine is running, keep hair, hands and clothing away from moving parts such as the fan and drive belts to prevent injury.

5. If the water pump drive belt is broken or engine coolant is leaking out, stop the engine immediately and we recommend that you call an authorized HYUNDAI dealer.

WARNING

Do not remove the radiator cap when the engine is hot. This can allow coolant to be blown out of the opening and cause serious burns.

6. 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.

7. Proceed with caution, keeping alert for further signs of overheating. If overheating happens again, we recommend that you call an authorized HYUNDAI dealer.

CAUTION

- **Serious loss of coolant indicates there is a leak in the cooling system and we recommend that 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.**

REMOVING AND STORING THE SPARE TIRE

■ 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 and fasten the jack screw fully.

Follow jacking instructions to reduce the possibility of personal injury.

WARNING

Changing tires

- Never attempt vehicle repairs in the traffic lanes of a public road or highway.
- Always move the vehicle completely off the road and onto the shoulder before trying to change a tire. The jack should be used on firm level ground. If you cannot find a firm level place off the road, call a towing service company for assistance.

(Continued)

(Continued)

- Be sure to use the correct front and rear jacking positions on the vehicle; never use the bumpers or any other part of the vehicle for jacking support.
- The vehicle can easily roll off the jack causing serious injury or death.
- Do not get under a vehicle that is supported by a jack.
- 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.
- Make sure any children present are in a secure place away from the road and from the vehicle to be raised with the jack.



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■ A type

► Jack and tools

The jack, wheel lug nut wrench are stored in the front passenger's door step side.

- (1) Jack
- (2) Jack handle and extension bars
- (3) Wheel lug nut wrench
- (4) Towing hook
- (5) Screwdriver (VAN/BUS Only)
- (6) 14 x 17 Spanner (TRUCK Only)

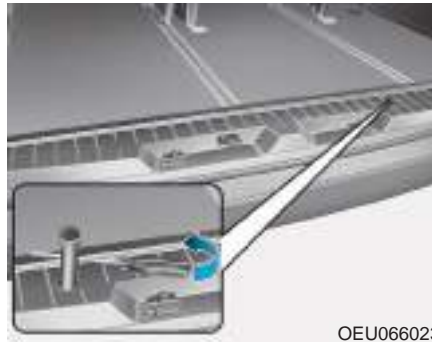


► **VAN/BUS**

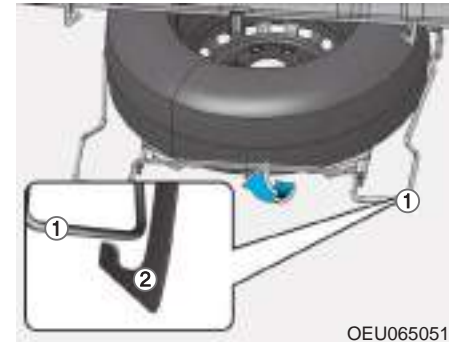
Your spare tire is stored underneath your vehicle, directly below the cargo area.

To remove the spare tire:

1. Open the rear doors.
2. Find the plastic hex bolt cover and remove the cover.



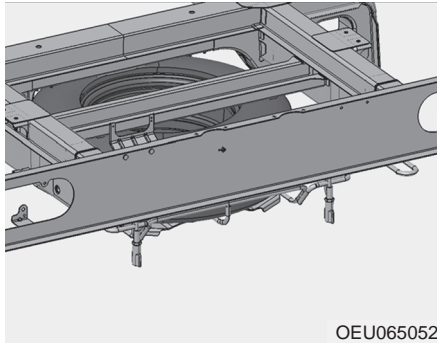
3. Using the extension bar and the screwdriver, unscrew the bolts counter-clockwise. Be careful not to drop the carrier rapidly.
4. After the spare tire carrier reaches the ground, remove the spare tire outside from the carrier.



To store the spare tire:

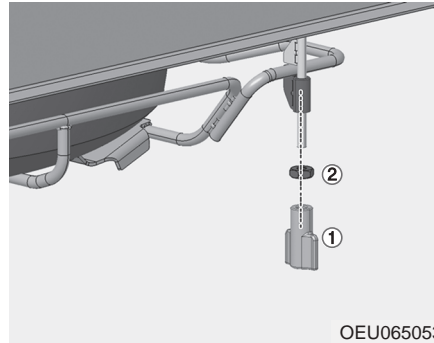
1. Carefully place the spare tire onto the spare tire carrier (1) with the valve stem facing down.
2. Raise the spare tire carrier with the hold bolt assemblies.
3. Turn the hold bolt (2) assemblies clockwise until it tightens the specified torque.

[9.6~14.4 kgf.m(69~104 lb.ft)]



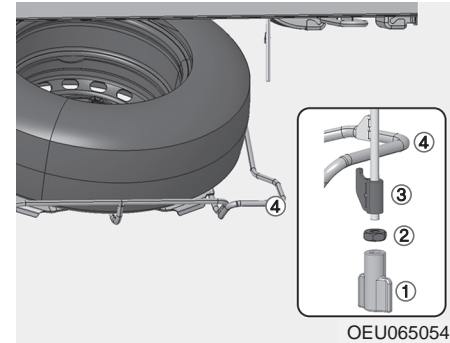
► **Truck**

Your spare tire is stored underneath your vehicle, directly below the cargo area.



To remove the spare tire:

1. Loosen fender nuts (1) manually and then remove them.
2. Using the spanner, unscrew the nuts (2) counter-clockwise.
Be careful not to drop the carrier rapidly.
3. After the spare tire carrier reaches the ground, remove the spare tire outside from the carrier.



To store the spare tire:

1. Carefully place the spare tire onto the spare tire carrier (4) with the valve stem facing down.
2. Raise the spare tire carrier with the hook assemblies (3).
3. Turn the nuts (2) clockwise until it tightens the specified torque.
[1.2~1.8 kgf.m (8.7~13.0 lb.ft)]
4. Put fender nuts (1) in place and tighten them.



■ B type

► **Jack and tools**

The jack, wheel lug nut wrench are stored in the front passenger's door step side.

- (1) Jack
- (2) Jack handle and extension bars
- (3) Wheel lug nut wrench
- (4) Towing hook



► **VAN/BUS**

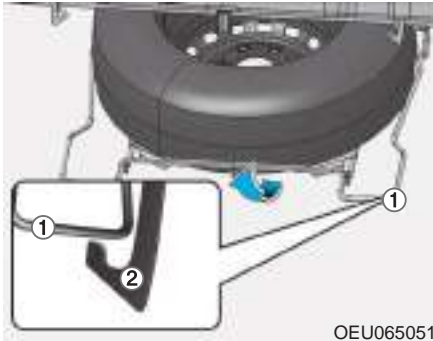
Your spare tire is stored underneath your vehicle, directly below the cargo area.

To remove the spare tire:

1. Open the rear doors.
2. Find the plastic hex bolt cover and remove the cover.



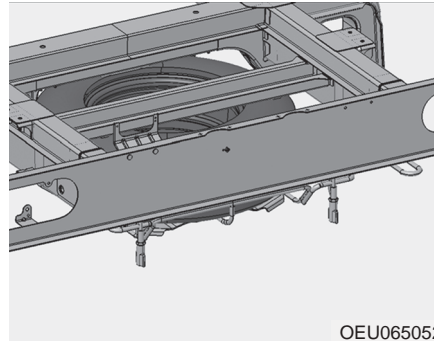
3. Using the wheel lug nut wrench, unscrew the bolts counter-clockwise. Be careful not to drop the carrier rapidly.
4. After the spare tire carrier reaches the ground, remove the spare tire outside from the carrier.



To store the spare tire:

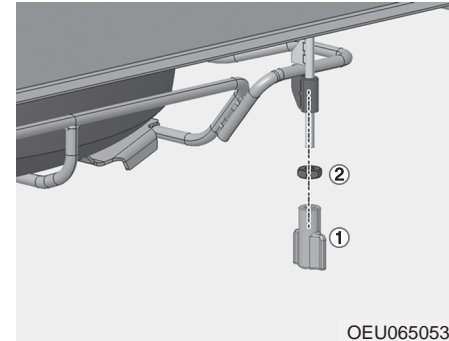
1. Carefully place the spare tire onto the spare tire carrier (1) with the valve stem facing down.
2. Raise the spare tire carrier with the hold bolt assemblies.
3. Turn the hold bolt (2) assemblies clockwise until it tightens the specified torque.

[9.6~14.4 kgf.m(69~104 lb.ft)]



► **Truck**

Your spare tire is stored underneath your vehicle, directly below the cargo area.

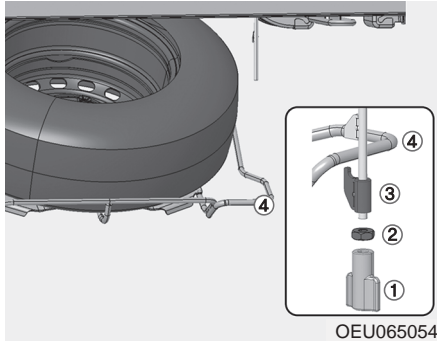


To remove the spare tire:

1. Loosen fender nuts (1) manually and then remove them.
2. Using the wheel lug nut wrench, unscrew the nuts (2) counter-clockwise.

Be careful not to drop the carrier rapidly.

3. After the spare tire carrier reaches the ground, remove the spare tire outside from the carrier.



To store the spare tire:

1. Carefully place the spare tire onto the spare tire carrier (4) with the valve stem facing down.
2. Raise the spare tire carrier with the hook assemblies (3).
3. Turn the nuts (2) clockwise until it tightens the specified torque.
[1.2~1.8 kgf.m (8.7~13.0 lb.ft)]
4. Put fender nuts (1) in place and tighten them.

WARNING

Ensure the spare tire carrier is properly aligned with the center of the spare tire to prevent the spare tire “rattling”. Otherwise, it may cause the spare tire to fall off the carrier and lead to an accident.

Changing tires



1. Park on a level surface and apply the parking brake firmly.
2. Shift the shift lever into R (Reverse) with manual transmission.
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 wheel that is diagonally opposite the jack position.

WARNING

Changing a tire

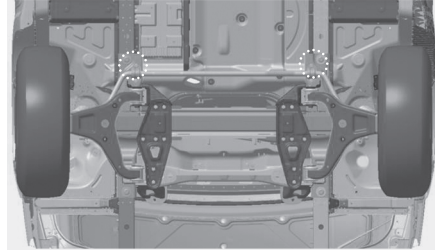
- To prevent vehicle movement while changing a tire, always set the parking brake fully, and always block the wheel diagonally opposite the wheel being changed.
- We recommend that the wheels of the vehicle be chocked, and that no person remain in a vehicle that is being jacked.



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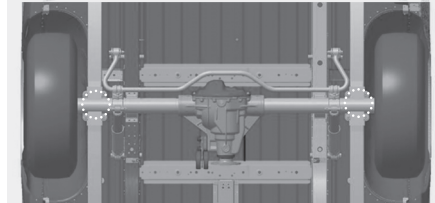
6. Loosen the wheel lug nuts counter-clockwise one turn each, but do not remove any nut until the tire has been raised off the ground.

■ FRONT TIRE



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■ REAR TIRE



OEU064025

7. Place the jack at the front or rear jacking position closest to the tire you are changing. The jack should be positioned as shown in the drawing.

- Front : Position the jack under longitudinal member in rear of front sub frame assembly.
- Rear : Position the jack under rear axle, as near the wheel being jacked as possible.

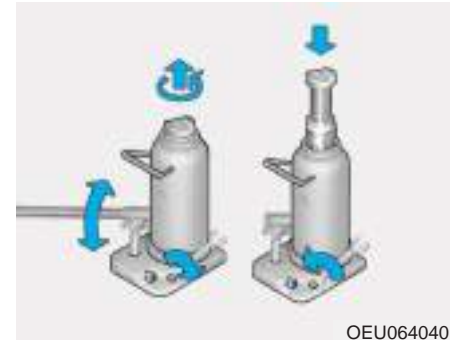
WARNING

Jack location

To reduce the possibility of injury, be sure to use only the jack provided with the vehicle and in the correct jack position; never use any other part of the vehicle for jack support.



8. Fit the jack handle into the jack socket and then move the jack handle up and down.



9. Raising the vehicle

If the jack-up point is too high, extend the jack by turning the jack head counterclockwise. Using the spanner wrench or jack handle, turn the release valve clockwise fully.

Move the jack handle up and down to raise the ram until just before the jack contacts the jacking point of the vehicle.

Position the jack with the jack handle. Position it only at the specified points indicated in the "Put the Jack in Place".

Use of the jack at other points could damage the vehicle.

Moving the jack handle up and down to raise the ram.

 **CAUTION**

- Use only the jack included with the vehicle and use it only for changing a wheel.
- Position the jack on a hard level surface.
- If the release valve is loosened by turning it 2 or more times in the counterclockwise direction, the jack cannot be used.
- This jack is hydraulic, and the ram is a two-stage type. When both rams are raised and the stop mark of the upper ram becomes visible, stop jacking immediately.

Further extension of the ram may damage the jack.

- When jacking up the vehicle, do so only until the tires are slightly lifted from the ground. It is dangerous to jack up the vehicle more than that much.

(Continued)

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- It is very dangerous if the jack somehow slips, so never leave the vehicle in the jacked-up position, and never shake the vehicle while it is raised.

 **WARNING**

Do not get under the vehicle when it is supported by the jack! This is very dangerous as the vehicle could fall and cause serious injury or death. No one should stay in the vehicle while the jack is being used.

10. Changing wheels

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.

NOTICE

On a double-tire vehicle, first remove the outside tire, then remove the inner tire.

⚠ WARNING

Wheel and wheel covers 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 loosen 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.



11. Reinstall wheel nuts

To reinstall the wheel, hold it on the studs, put the wheel nuts on the studs and tighten them finger tight. Jiggle the tire to be sure it is completely seated, then tighten the nuts as much as possible with your fingers again.

⚠ CAUTION

Note that the wheel nuts "R" mark on the right tires are right-hand screw and those "L" mark on the left tires are left-hand screw, as viewed to the front of vehicle. To tighten the nuts, turn clockwise for the right-hand side and counterclockwise for the left-hand side.



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12. Lower vehicle and tighten nuts

Lower the vehicle to the ground by turning the release valve on the jack 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, have a technician tighten the wheel nuts to their proper torque as soon as possible.

Wheel nut tightening torque:

Steel wheel & aluminum alloy wheel:
9~11 kg.m (67~81 lb.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.

After changing wheels

If you have a tire gauge, remove the valve cap and check the air pressure. If the pressure is lower than recommended, we recommend that you contact an authorized HYUNDAI dealer. 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.

 **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.

 **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.

 **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.

Important - use of compact spare tire (if equipped)

Your vehicle is equipped with a compact spare tire. This compact spare tire takes up less space than a regular-size tire. This tire is smaller than a conventional tire and is designed for temporary use only.

NOTICE

- You should drive carefully when the compact spare is in use. The compact spare should be replaced by the proper conventional tire and rim at the first opportunity.
- The operation of this vehicle is not recommended with more than one compact spare tire in use at the same time.

 **WARNING**

The compact spare tire is for emergency use only. Do not operate your vehicle on this compact spare at speeds over 80 km/h (50 mph). The original tire should be repaired or replaced as soon as is possible to avoid failure of the spare possibly leading to personal injury or death.

The compact spare should be inflated to 420 kPa (60 psi).

 **Information**

Check the inflation pressure after installing the spare tire. Adjust it to the specified pressure, as necessary.

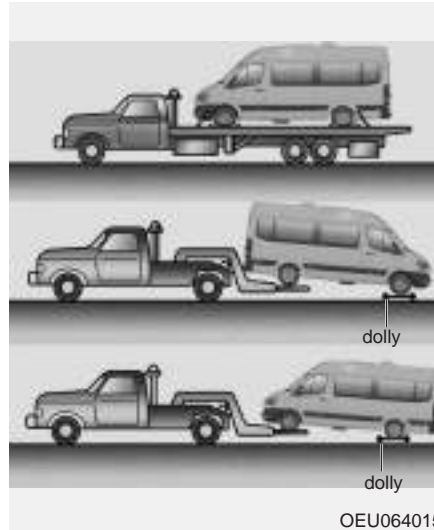
When using a compact spare tire, observe the following precautions:

- Under no circumstances should you exceed 80 km/h (50 mph); a higher speed could damage the tire.
- Ensure that you drive slowly enough for the road conditions to avoid all hazards. Any road hazard, such as a pothole or debris, could seriously damage the compact spare.
- Any continuous road use of this tire could result in tire failure, loss of vehicle control, and possible personal injury.
- Do not exceed the vehicle's maximum load rating or the load-carrying capacity shown on the sidewall of the compact spare tire.
- 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), which could result in damage to the vehicle.
- Do not take this vehicle through an automatic car wash while the compact spare tire is installed.
- Do not use tire chains on the compact spare tire. Because of the smaller size, a tire chain will not fit properly. This could damage the vehicle and result in loss of the chain.
- The compact spare tire should not be installed on the front axle if the vehicle must be driven in snow or on ice.
- 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.

- The compact spare tire should not be used on any other wheels, nor should standard tires, snow tires, wheel covers or trim rings be used with the compact spare wheel. If such use is attempted, damage to these items or other car components may occur.
- Do not use more than one compact spare tire at a time.
- Do not tow a trailer while the compact spare tire is installed.

TOWING

Towing service



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.

On 2WD vehicles, it is acceptable to tow the vehicle with the rear wheels on the ground (without dollies) and the front wheels off 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 backwards with the front wheels on the ground as this may cause damage to the vehicle.
- Do not tow with sling-type equipment. Use wheel lift or flatbed equipment.

When towing your vehicle in an emergency without wheel dollies :

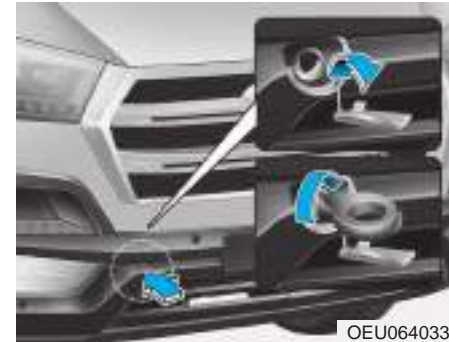
1. Set the ignition switch in the ACC position.
2. Place the transmission shift lever in N (Neutral).
3. Release the parking brake.

⚠ CAUTION

Failure to place the transmission shift lever in N (Neutral) may cause internal damage to the transmission.

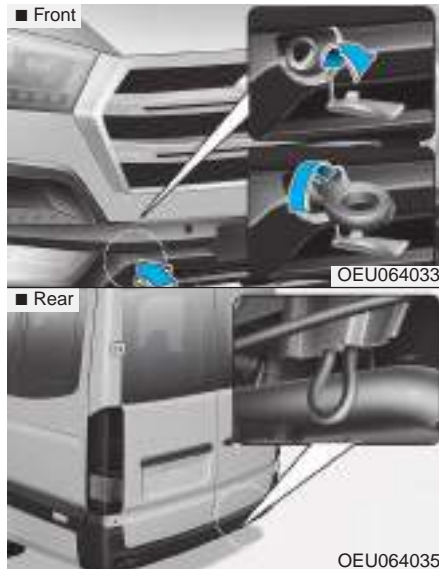
Removable towing hook (if equipped)

Front towing hook



1. Remove the towing hook from the tool store of front passenger's door step side.
2. Remove the hole cover pressing the upper part of the cover on the front bumper.
3. Install the towing hook by turning it clockwise into the hole until it is fully secured.
4. Remove the towing hook and install the cover after use.

Emergency towing



If towing is necessary, we recommend you to have it done by an authorized HYUNDAI dealer or a commercial tow truck service.

If 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 under the front (or rear) of the vehicle. Use extreme caution when towing the vehicle. 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 speed. Also, the wheels, axles, power train, steering and brakes must all be in good condition.

- 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.
- Avoid towing a vehicle heavier than the vehicle doing the towing.
- The drivers of both vehicles should communicate with each other frequently.

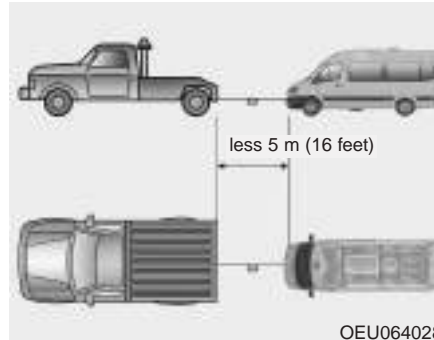
CAUTION

- **Attach a towing strap to the tow hook.**
 - **Using a portion of the vehicle other than the tow hooks for towing may damage the body of your vehicle.**
 - **Use only a cable or chain specifically intended for use in towing vehicles. Securely fasten the cable or chain to the towing hook provided.**
- 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.
 - To avoid damaging the hook, do not pull from the side or at a vertical angle. Always pull straight ahead.

WARNING

Use extreme caution when towing the vehicle.

- Avoid sudden starts or erratic driving maneuvers which would place excessive stress on the emergency towing hook and towing cable or chain. The hook and towing cable or chain may break and cause serious injury or damage.
- If the disabled vehicle is unable to be moved, do not forcibly continue the towing. Contact an authorized HYUNDAI dealer or a commercial tow truck service for assistance.
- Tow the vehicle as straight ahead as possible.
- Keep away from the vehicle during towing.

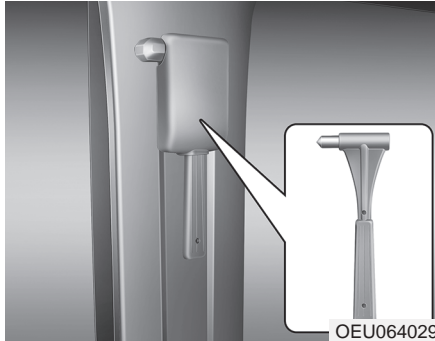


- Use a towing strap less than 5 m (16 feet) long. Attach a white or red cloth (about 30 cm (12 inches) wide) in the middle of the strap for easy visibility.
- Drive carefully so that the towing strap is not loosened during towing.

Emergency towing precautions

- Turn the ignition switch to ACC so the steering wheel isn't locked.
- Place the transmission shift lever in N (Neutral).
- Release the parking brake.
- Press the brake pedal with more force than normal since you will have reduced brake performance.
- More steering effort will be required because the power steering system will be disabled.
- If you are driving down a long hill, the brakes may overheat and brake performance will be reduced. Stop often and let the brakes cool off.

GLASS BREAK HAMMER (IF EQUIPPED)



Break the glass and escape using the glass break hammer installed in the vehicle in case of emergency.

You can take out glass break hammer after holding on to the knob and lifting up.

CAUTION

Be careful that splinters of glass do not shatter when breaking glass. Splinters of glass may cause damage to human body.

EMERGENCY EXIT (IF EQUIPPED)



In case of an emergency

Remove the red plastic cover (1) and the inner trim (2) to take out the glass-breaking hammer.

With this glass-breaking hammer, break the glass of the emergency exit and escape from the vehicle.

The emergency exit assembly may fall on the floor, when you break the glass.

WARNING

Be careful that splinters of glass do not shatter when breaking glass. Splinters of the glass or then emergency exit assembly may cause damage to human body.

EMERGENCY COMMODITY (IF EQUIPPED)

There are some emergency commodities in the vehicle to help you respond to the emergency situation.

Fire extinguisher

If there is small fire and you know how to use the fire extinguisher, take the following steps carefully.

※ Location of a fire extinguisher

Bus : Behind of front passenger's seat and behind right side of passenger's seat

Van : Behind of front passenger's seat

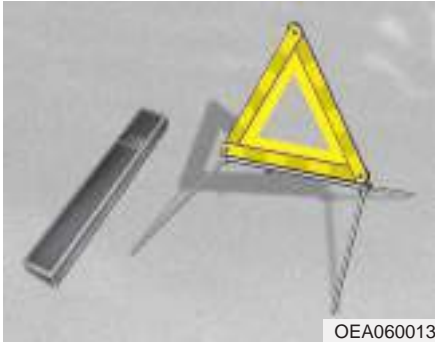
1. Pull the pin at the top of the extinguisher that keeps the handle from being accidentally pressed.
2. Aim the nozzle toward the base of the fire.
3. Stand approximately 2.5 m (8 ft) away from the fire and squeeze the handle to discharge the extinguisher. If you release the handle, the discharge will stop.
4. Sweep the nozzle back and forth at the base of the fire. After the fire appears to be out, watch it carefully since it may re-ignite.

First aid kit (if equipped)



There are some items such as scissors, bandage and adhesive tape and etc. in the kit to give first aid to an injured person.

Triangle reflector (if equipped)



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 any problems.

Tire pressure gauge (If equipped)

Tires normally lose some air in day-to-day use, and you may have to add a few pounds of air periodically and it is not usually a sign of a leaking tire, but of normal wear. Always check tire pressure when the tires are cold because tire pressure increases with temperature.

To check the tire pressure, take the following steps;

1. Unscrew the inflation valve cap that is located on the rim of the tire.
2. Press and hold the gauge against the tire valve. Some air will escape as you begin and more will escape 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 know whether the tire pressure is low or high.
5. Adjust the tire pressures to the specified pressure. Refer to "Tires and wheels" in section 8.
6. Reinstall the inflation valve cap.

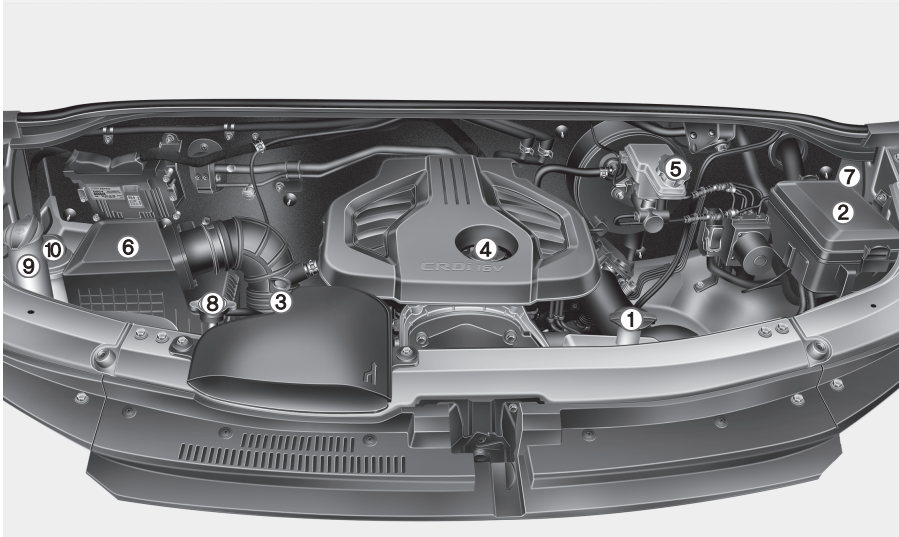
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ENGINE COMPARTMENT

■ Bus, Van, Truck (without auxiliary battery)

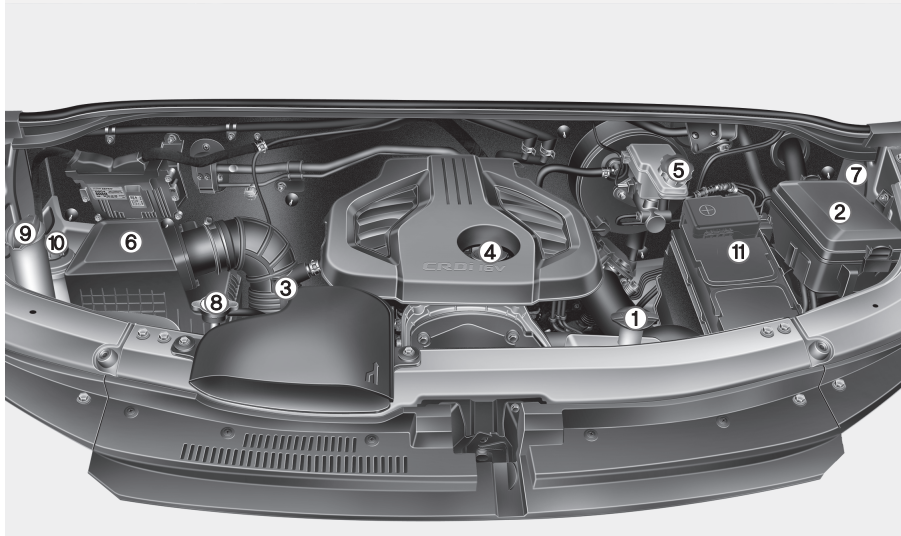


1. Engine coolant reservoir
2. Fuse box and positive battery terminal
3. Engine oil dipstick
4. Engine oil filler cap
5. Brake/clutch fluid cap
6. Air cleaner
7. Negative battery terminal
8. Radiator cap
9. Windshield washer fluid reservoir
10. Power steering fluid reservoir

The actual shape may differ from the illustration.

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■ Van, Truck (with auxiliary battery)



1. Engine coolant reservoir
2. Fuse box and positive battery terminal
3. Engine oil dipstick
4. Engine oil filler cap
5. Brake/clutch fluid cap
6. Air cleaner
7. Negative battery terminal
8. Radiator cap
9. Windshield washer fluid reservoir
10. Power steering fluid reservoir
11. Auxiliary battery

The actual shape 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.

Inadequate, incomplete or insufficient servicing may result in operational problems with your vehicle that could lead to vehicle damage, an accident, or personal injury.

Owner's responsibility

NOTICE

Maintenance Service and Record Retention are the owner's responsibility.

We recommend in general that you have your vehicle serviced by an authorized HYUNDAI dealer. 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 when your vehicle is covered by warranty.

Owner maintenance precautions

Improper or incomplete service may result in problems. This section gives instructions only for the maintenance items that are easy to perform.

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.

 **WARNING**

Maintenance work

- Performing maintenance work on a vehicle can be dangerous. You can be seriously injured while performing some maintenance procedures. 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.
- Working under the hood with the engine running is dangerous. It becomes even more dangerous when you wear jewelry or loose clothing. These can become entangled in moving parts and result in injury.

(Continued)

Continued)

Therefore, if you must run the engine while working under the hood, make certain that you remove all jewelry (especially rings, bracelets, watches, and necklaces) and all neckties, scarves, and similar loose clothing before getting near the engine or cooling fans.

 **CAUTION**

- Do not put heavy objects or apply excessive force on top of the engine cover (if equipped) or fuel related parts.
- When you inspect the fuel system (fuel lines and fuel injection devices), we recommend that you contact an authorized HYUNDAI dealer.
- Do not drive long time with the engine cover (if equipped) removed.
- When checking the engine room, do not go near fire.
Fuel, washer fluid, etc. are flammable oils that may cause fire.
- Before touching the battery, ignition cables and electrical wiring, you should disconnect the battery "-" terminal. You may get an electric shock from the electric current.

(Continued)

Continued)

- **When you remove the interior trim cover with a flat head (-) driver, be careful not to damage the cover.**
- **Be careful when you replace and clean bulbs to avoid burns or electrical shock.**

Engine compartment precautions (Diesel engine)

- Follow the safety tips provided below, when you are checking the engine room while the engine is running.
 - Do not touch the injector, injector wirings, and the engine computer while the engine is running.
 - Do not remove the injector connector while the engine is running.
 - People using pacemakers must not go near the engine while the engine is starting or running.

⚠ WARNING

Diesel Engine

Never work on injection system with engine running or within 30 seconds after shutting off engine. High-pressure pump, rail, injectors and high-pressure pipes are subject to high pressure even after the engine stopped. The fuel jet produced by fuel leaks may cause serious injury, if it touches the body. People using pacemakers should not move than 30cm closer to the ECU or wiring harness within the engine room while engine is running, since the high currents in the electronic engine control system produce considerable magnetic fields.

OWNER MAINTENANCE

The following lists are vehicle checks and inspections that should be performed at the frequencies indicated to help ensure safe, dependable operation of your vehicle. If you have any question, we recommend that you consult an authorized HYUNDAI dealer.

These Owner Maintenance Checks are generally not covered by warranties and you may be charged for labor, parts and lubricants used.

Owner maintenance schedule

When you stop for fuel:

- Check the engine oil level.
- Check coolant level in coolant reservoir.
- Check the windshield washer fluid level.
- Look for low or under-inflated tires.

WARNING

Be careful when checking your engine coolant level when the engine is hot. Scalding hot coolant and steam may blow out under pressure. This could cause burns or other serious injury.

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 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 manual transmission operation, including clutch operation.
- Check 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.

**At least twice a year
(i.e., every Spring and Fall) :**

- Check radiator, heater and air conditioning hoses for leaks or damage.
- Check windshield washer spray and wiper operation. Clean wiper blades with clean cloth dampened with washer fluid.
- Check headlight alignment.
- Check muffler, exhaust pipes, shields and clamps.
- Check the lap/shoulder belts for wear and function.
- Check for worn tires and loose wheel lug nuts.

At least once a year :

- Clean body, door and hood drain holes.
- Clean and lubricate door hinges and checks, and hood hinges.
- Clean and lubricate door and hood locks and latches.
- Clean and lubricate door rubber weatherstrips.
- Check the air conditioning system.
- Check the power steering fluid level.
- Clean battery and terminals.
- Check the brake and clutch 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 short distance driving.
- Driving in dusty conditions or sandy areas.
- Extensive use of brakes.
- Driving in areas where salt or other corrosive materials are used.
- Driving on rough or muddy roads.
- Driving in mountainous areas.
- Extended periods of idling or low speed operation.
- Driving for a prolonged period in cold temperatures and/or extremely humid climates.
- More than 50% driving in heavy city traffic during hot weather above 32°C (90°F).

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.

NORMAL MAINTENANCE SCHEDULE (FOR EUROPE)

MAINTENANCE ITEM	MAINTENANCE INTERVALS	Number of months or driving distance, whichever comes first								
		Months	24	48	72	96	120	144	168	192
		Miles×1,000	20	37.5	60	75	90	110	130	150
		Km×1,000	30	60	90	120	150	180	210	240
Drive Belts *1 and idler		At first, inspect 60,000 km (37,500 miles) or 48 months After that, inspect every 30,000 km (20,000 miles) or 24 months								
Engine oil and engine oil filter *2		Except Russia	Replace every 30,000 km (20,000 miles) or 24 months							
		For Russia	Replace every 15,000 km (1,000 miles) or 12 months							
Air cleaner filter		I	R	I	R	I	R	I	R	
Vapor hose and fuel filter cap		I	I	I	I	I	I	I	I	
Vacuum hose (for EGR & throttle body) (if equipped)		I	I	I	I	I	I	I	I	
Fuel Filter Cartridge *3*4		I	R	I	R	I	R	I	R	
Fuel line hoses and connections		I	I	I	I	I	I	I	I	

I : Inspect and if necessary, adjust, correct, clean or replace.

R : Replace or change.

*1 : Adjust alternator and power steering (and water pump drive belt) and air conditioner drive belt (if equipped).
Inspect and if necessary correct or 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 specification doesn't meet the EN590, it must be replaced more frequently. If there are some important safety matters like fuel flow restriction, surging, loss of power, hard starting problem etc, replace the fuel filter immediately regardless of maintenance schedule and we recommend that you consult an authorized HYUNDAI dealer.

*4 : Fuel filter warning light comes on, you should replace fuel filter before the next scheduled service.

NORMAL MAINTENANCE SCHEDULE (FOR EUROPE)

MAINTENANCE ITEM	MAINTENANCE INTERVALS	Number of months or driving distance, whichever comes first							
	Months	24	48	72	96	120	144	168	192
	Miles×1,000	20	37.5	60	75	90	110	130	150
	Km×1,000	30	60	90	120	150	180	210	240
Cooling system	Inspect "Coolant level and leak" every day Inspect "Water pump" when replacing the drive belt								
Radiator pressure cap	I	I	I	I	I	I	I	I	I
Engine coolant * ⁵	At first, replace at 210,000 km (130,000 miles) or 10 years : after that, replace every 30,000 km (20,000 miles) or 24 months * ⁶								
Battery Condition	I	I	I	I	I	I	I	I	I
Brake lines, hoses and connections	I	I	I	I	I	I	I	I	I
Brake pedal	I	I	I	I	I	I	I	I	I
Parking brake	I	I	I	I	I	I	I	I	I
Brake/Clutch fluid	I	R	I	R	I	R	I	R	I
Disc brakes and pads	I	I	I	I	I	I	I	I	I
Power steering fluid	I	R	I	R	I	R	I	R	I
Power steering hoses	I	I	I	I	I	I	I	I	I

I : Inspect and if necessary, adjust, correct, clean or replace.

R : Replace or change.

*⁵ : 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.

*⁶ : For your convenience, it can be replaced prior to its interval when you do maintenance of other items.

NORMAL MAINTENANCE SCHEDULE (FOR EUROPE)

MAINTENANCE ITEM	MAINTENANCE INTERVALS	Number of months or driving distance, whichever comes first								
		Months	24	48	72	96	120	144	168	192
		Miles×1,000	20	37.5	60	75	90	110	130	150
		Km×1,000	30	60	90	120	150	180	210	240
Steering gear rack, linkage and boots		I	I	I	I	I	I	I	I	
Propeller shaft		I	I	I	I	I	I	I	I	
Tire (pressure & tread wear)		I	I	I	I	I	I	I	I	
Front suspension ball joints		I	I	I	I	I	I	I	I	
Bolt and nuts on chassis and body		I	I	I	I	I	I	I	I	
Air conditioner refrigerant (if equipped)		I	I	I	I	I	I	I	I	
Air conditioner compressor (if equipped)		Inspect every 30,000 km (20,000 miles) or 2 years								
Climate control air filter (if equipped)		R	R	R	R	R	R	R	R	
Manual transmission fluid (if equipped)		Inspect every 60,000 km (37,500 miles) or 2 years If necessary, refill transmission oil At first, replace 90,000 km (60,000 miles) : after that, replace every 150,000 km (93,000 miles)								
Rear axle oil ^{*7}		R	R	R	R	R	R	R	R	

I : Inspect and if necessary, adjust, correct, clean or replace.

R : Replace or change.

^{*7} : Rear axle oil should be changed anytime they have been submerged in water.

Note : Number of months or during distance, whichever comes first.

NORMAL MAINTENANCE SCHEDULE (EXCEPT EUROPE)

MAINTENANCE ITEM	MAINTENANCE INTERVALS	Number of months or driving distance, whichever comes first								
		Months	12	24	36	48	60	72	84	96
		Miles×1,000	12.5	25	37.5	50	62.5	75	87.5	100
		Km×1,000	20	40	60	80	100	1120	140	160
Drive belts * ¹ and idler		At first, inspect 60,000 km (37,500 miles) or 48 months After that, inspect every 30,000 km (20,000 miles) or 24 months								
Engine oil and engine oil filter * ²		Replace every 10,000 km (6,200 miles) or 12 months								
Air cleaner filter		I	R	I	R	I	R	I	R	
Vapor hose and fuel filler cap		I	I	I	I	I	I	I	I	
Vacuum hose (for EGR & throttle body) (if equipped)		I	I	I	I	I	I	I	I	
Fuel filter cartridge * ³ * ⁴		I	R	I	R	I	R	I	R	

I : Inspect and if necessary, adjust, correct, clean or replace.

R : Replace or change.

*¹ : Adjust alternator and power steering (and water pump drive belt) and air conditioner drive belt (if equipped).
Inspect and if necessary correct or 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 specification doesn't meet the EN590, it must be replaced more frequently. If there are some important safety matters like fuel flow restriction, surging, loss of power, hard starting problem etc, replace the fuel filter immediately regardless of maintenance schedule and we recommend that you consult an authorized HYUNDAI dealer.

*⁴ : Fuel filter warning light comes on, you should replace fuel filter before the next scheduled service.

NORMAL MAINTENANCE SCHEDULE (EXCEPT EUROPE)

MAINTENANCE ITEM	MAINTENANCE INTERVALS	Number of months or driving distance, whichever comes first								
		Months	12	24	36	48	60	72	84	96
		Miles×1,000	12.5	25	37.5	50	62.5	75	87.5	100
		Km×1,000	20	40	60	80	100	120	140	160
Fuel lines, hoses and connections		I	I	I	I	I	I	I	I	
Cooling system		Inspect "Coolant level and leak" every day Inspect "Water pump" when replacing the drive belt								
Engine coolant * ⁵		At first, replace at 200,000 km (120,000 miles) or 10 years: after that, replace every 40,000 km (25,000 miles) or 24 months * ⁶								
Battery condition		I	I	I	I	I	I	I	I	
Brake lines, hoses and connections		I	I	I	I	I	I	I	I	
Brake pedal		I	I	I	I	I	I	I	I	
Parking brake		I	I	I	I	I	I	I	I	
Brake fluid		I	I	I	I	I	I	I	I	
Disc brakes and pads		I	I	I	I	I	I	I	I	
Power steering hoses		I	I	I	I	I	I	I	I	
Power steering fluid		I	R	I	R	I	R	I	R	

I : Inspect and if necessary, adjust, correct, clean or replace.

R : Replace or change.

*⁵ : 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.

*⁶ : For your convenience, it can be replaced prior to its interval when you do maintenance of other items.

NORMAL MAINTENANCE SCHEDULE (EXCEPT EUROPE)

MAINTENANCE ITEM	MAINTENANCE INTERVALS	Number of months or driving distance, whichever comes first								
		Months	12	24	36	48	60	72	84	96
		Miles×1,000	12.5	25	37.5	50	62.5	75	87.5	100
		Km×1,000	20	40	60	80	100	120	140	160
Steering gear rack, linkage and boots		I	I	I	I	I	I	I	I	
Propeller shaft		I	I	I	I	I	I	I	I	
Tire (pressure & tread wear)		I	I	I	I	I	I	I	I	
Front suspension ball joints		I	I	I	I	I	I	I	I	
Bolt and nuts on chassis and body		I	I	I	I	I	I	I	I	
Air conditioner refrigerant (if equipped)		I	I	I	I	I	I	I	I	
Air conditioner compressor (if equipped)		Inspect every 30,000 km (20,000 miles) or 2 years								
Climate control air filter (if equipped)		R	R	R	R	R	R	R	R	
Manual transmission fluid		Inspect every 60,000 km (37,500 miles) or 2 years If necessary, refill transmission oil At first, replace at 140,000 km (85,000 miles) : after that, replace 160,000 km (100,000 miles)								
Rear axle oil *7		R	R	R	R	R	R	R	R	

I : Inspect and if necessary, adjust, correct, clean or replace.

R : Replace or change.

*7 : Rear axle oil should be changed anytime they have been submerged in water.

Note : Number of months or during distance, whichever comes first.

MAINTENANCE UNDER SEVERE USAGE CONDITIONS

The following items must be serviced more frequently on vehicles mainly used under severe driving conditions. Refer to the chart below for the appropriate maintenance intervals.

R : Replace I : Inspect and if necessary, adjust, correct, clean or replace

Maintenance item		Maintenance operation	Maintenance intervals	Driving condition
Engine oil and engine oil filter	For Europe	R	Every 15,000 km (10,000 miles) or 12 months	A, B, C, D, F, G, H, I, J, L, M
	Except Europe and Russia	R	Every 5,000 km (3,000 miles) or 6 months	A, B, C, D, F, G, H, I, J, L, M
	For Russia	R	Every 7,500 km (4,650 miles) or 6 months	A, B, C, D, F, G, H, I, J, L, M
Air cleaner filter		R	Replace more frequently depending on the condition	C, E
Manual transmission fluid		R	Replace initial 90,000 km (60,000 miles) after that replace 150,000 km (93,000 miles)	C, D, E, G, H, I, L
Rear axle oil		R	Every 30,000 km (20,000 miles)	C, E, G, H, I, L
Steering gear rack, linkage and boots		I	Inspect more frequently depending on the condition	C, D, E, F, G
Propeller shaft	For Europe	I	Every 20,000 km (12,500 miles) or 12 months	C, E
	Except Europe	I	Every 15,000 km (10,000 miles) or 12 months	
Front suspension ball joints		I	Inspect more frequently depending on the condition	C, D, E, F, G
Disc brakes and pads, calipers and rotors		I	Inspect more frequently depending on the condition	C, D, E, G, H

Maintenance

Maintenance item	Maintenance operation	Maintenance intervals	Driving condition
Parking brake	R	Replace more frequently depending on the condition	C, D, G, H
Climate control air filter (if equipped)	R	Replace more frequently depending on the condition	C, E, G

Severe driving conditions

A : Repeated short distance driving

B : Extensive idling

C : Driving in dusty, rough roads

D : Driving in areas using salt or other corrosive materials or in very cold weather

E : Driving in sandy areas

F : More than 50 % driving in heavy city traffic during hot weather above 32°C (90°F)

G : Driving on uphill, downhill or mountain roads

H : Towing a trailer or using a camper on roof rack (if equipped)

I : Driving for patrol vehicle, taxi, commercial vehicle or vehicle towing

J : Driving in very cold weather

K : Driving over 140 km/h (87 mile/h)

L : Driving over 170 km/h (106 mile/h)

M : Frequently driving in stop - and - go conditions

Note : Number of months or during distance, whichever comes first.

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 in the LOCK/OFF or ACC position.

Fuel filter (cartridge)

A clogged filter can limit the speed at which the vehicle may be driven, damage the emission system and cause multiple issues such as hard starting. If an excessive amount of foreign matter accumulates in the fuel tank, the filter may require replacement more frequently.

After installing a new filter, run the engine for several minutes, and check for leaks at the connections. We recommend that the fuel filter be replaced by an authorized HYUNDAI dealer.



CAUTION

In case the fuel filter is clogged due to not conforming to the maintenance period, the fuel injection equipment may supply the fuel insufficiently, which may damage the fuel injection equipment and cause the engine to stall at worst cases.

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 connection be replaced by an authorized HYUNDAI dealer.



WARNING

Diesel only

Never work on injection system with engine running or within 30 seconds after shutting off engine. High pressure pump, rail, injectors and high pressure pipes are subject to high pressure even after the engine stopped. The fuel jet produced by fuel leaks may cause serious injury, if it touch the body. People using pacemakers should not move than 30cm closer to the ECU or wiring harness within the engine room while engine is running, since the high currents in the Common Rail system produce considerable magnetic fields.

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 assure 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.

Cooling system

Check cooling system components, such as radiator, coolant reservoir, hoses and connections for leakage and damage. Replace any damaged parts.

Coolant

The coolant should be changed at the intervals specified in the maintenance schedule.

Manual transmission fluid (if equipped)

Inspect the manual transmission fluid according to the maintenance schedule.

Brake hoses and lines

Visually check for proper installation, chafing, cracks, deterioration and any leakage. Replace any deteriorated or damaged parts immediately.

Brake fluid

Check 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 4 specification.

Parking brake

Inspect the parking brake system including the parking brake lever and cables.

Brake discs, 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 HYUNDAI web site.

[\(<http://brakemanual.hmc.co.kr>\)](http://brakemanual.hmc.co.kr)

Suspension mounting bolts

Check the suspension connections for looseness or damage. Retighten to the specified torque.

Steering gear box, linkage & boots/lower arm ball joint

With the vehicle stopped and 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.

Power steering pump, belt and hoses

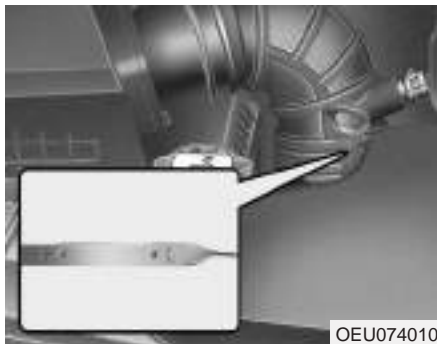
Check the power steering pump and hoses for leakage and damage. Replace any damaged or leaking parts immediately. Inspect the power steering belt (or drive belt) for evidence of cuts, cracks, excessive wear, oiliness and proper tension. Replace or adjust it if necessary.

Air conditioning refrigerant (if equipped)

Check the air conditioning lines and connections for leakage and damage.

ENGINE OIL

Checking the engine oil level



1. Be sure the vehicle is on level ground.
2. Start the engine and allow it to reach normal operating temperature.
3. Turn the engine off and wait for a few minutes (about 5 minutes) for the oil to return to the oil pan.
4. Pull the dipstick out, wipe it clean, and re-insert it fully.

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.

5. Pull the dipstick out again and check the level. The level should be between F and L.

CAUTION

- **Do not drive the vehicle, when the engine oil reservoir is empty. If not, it may damage the engine.**
- **Do not overfill with engine oil. Engine damage may result.**
- **Do not spill engine oil, when adding or changing engine oil. If you drop the engine oil on the engine room, wipe it off immediately.**

(Continued)

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- **When you wipe the oil level gauge, you should wipe it with a clean cloth. When mixed with debris, it can cause engine damage.**

CAUTION

Diesel engine

Overfilling the engine oil may cause severe dieseling due to churning effect. It may lead to engine damage accompanied with abrupt engine speed increment, combustion noise and white smoke emission.



OEU074011

If it is near or at L, add enough oil to bring the level to F. **Do not overfill.**

Use a funnel to help prevent oil from being spilled on engine components.

Use only the specified engine oil. (Refer to “Recommended lubricants and capacities” in section 8.)

Changing the engine oil and filter



We recommend that the engine oil and filter be replaced by an authorized HYUNDAI dealer.

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 level at least once a year, at the beginning of the winter season, and before traveling to a colder climate.

CAUTION

- Do not drive with no engine coolant. It may cause water pump failure and engine seizure, etc.
- 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.

Checking the coolant level

WARNING



Removing radiator cap

- Never attempt to remove the radiator cap while the engine is operating or hot. Doing so might lead to cooling system and engine damage and could result in serious personal injury from escaping hot coolant or steam.
- Turn the engine off and wait until it 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.

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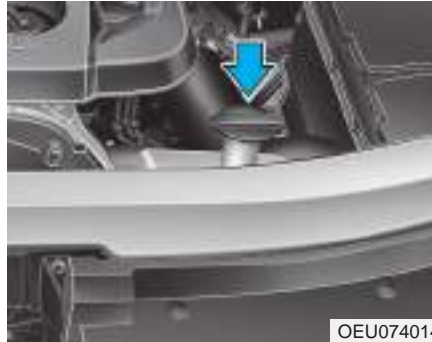
When you are sure all the pressure has been released, press down on the cap, using a thick towel, and continue turning counterclockwise to remove it.

- Even if the engine is not operating, do not remove the radiator cap or the drain plug while the engine and radiator are hot. Hot coolant and steam may still blow out under pressure, causing serious injury.

⚠ WARNING



The electric motor (cooling fan) is controlled by engine coolant temperature, refrigerant pressure and vehicle speed. It may sometimes operate even when the engine is not running. Use extreme caution when working near the blades of the cooling fan so that you are not injured by a rotating fan blades. As the engine coolant temperature decreases, the electric motor will automatically shut off. This is a normal condition.



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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 F and L marks on the side of the coolant reservoir when the engine is cool.

If the coolant level is low, add enough specified coolant to provide protection against freezing and corrosion. Bring the level to F, but do not overfill. If frequent additions are required, we recommend that the system be inspected by an authorized HYUNDAI dealer.

Recommended engine coolant

- 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.
- The engine in your vehicle has aluminum engine parts and must be protected by an ethylene-glycol-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)	
	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



⚠ WARNING



Radiator cap

Do not remove the radiator cap when the engine and radiator are hot. Scalding hot coolant and steam may blow out under pressure causing serious injury.

Changing the coolant

We recommend that the coolant be replaced by an authorized HYUNDAI dealer.

⚠ CAUTION

Put a thick cloth around the radiator cap before refilling the coolant in order to prevent the coolant from overflowing into engine parts such as the generator.

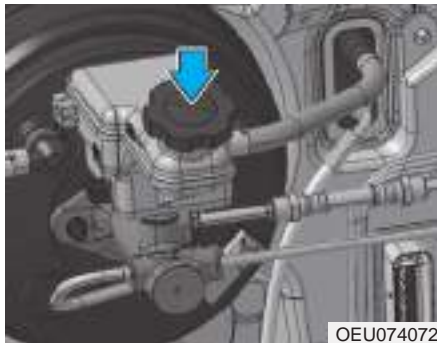
⚠ WARNING

Coolant

- Do not use radiator coolant or antifreeze in the washer fluid reservoir.
- Radiator coolant can severely obscure visibility when sprayed on the windshield and may cause loss of vehicle control or damage to paint and body trim.

BRAKE AND CLUTCH FLUID

Checking the brake fluid level



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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.

i Information

Use only the specified brake fluid. (Refer to “Recommended lubricants or capacities” in section 8.)

Never mix different types of fluid.

NOTICE

Before removing the brake/clutch filler cap, read the warning on the cap.

⚠ WARNING

Clean filler cap before removing. Use only DOT4 brake/clutch fluid from a sealed container.

⚠ WARNING

Brake fluid

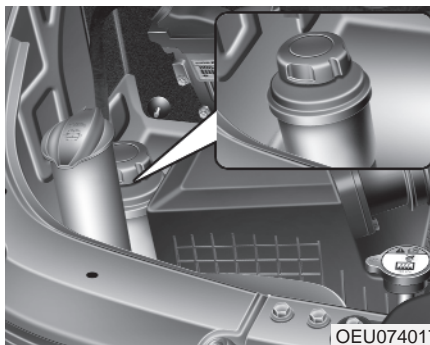
When changing and adding brake fluid, handle it carefully. Do not let it come in contact with your eyes. If brake fluid should come in contact with your eyes, immediately flush them with a large quantity of fresh tap water. Have your eyes examined by a doctor as soon as possible.

⚠ CAUTION

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 mineral-based oil, such as engine oil, in your brake system can damage brake system parts.

POWER STEERING FLUID

Checking the power steering fluid level



With the vehicle on level ground, check the fluid level in the power steering reservoir periodically. The fluid should be between MAX and MIN marks on the side of the reservoir at the normal temperature.

Before adding power steering fluid, thoroughly clean the area around the reservoir cap to prevent power steering fluid contamination.

If the level is low, add fluid to the MAX level.

NOTICE

Check that the fluid level is in the "HOT" range on the reservoir. If the fluid is cold, check that it is in the "COLD" range.

In the event the power steering system requires frequent additions of fluid, we recommend that the system be inspected by an authorized HYUNDAI dealer.

⚠ CAUTION

- To avoid damage to the power steering pump, do not operate the vehicle for prolonged periods with a low power steering fluid level.
- Never start the engine when the reservoir tank is empty.
- When adding fluid, be careful that dirt does not get into the reservoir.

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- Too little fluid can result in increased steering effort and/or noise from the power steering system.
- The use of the non-specified fluid could reduce the effectiveness of the power steering system and cause damage to it.

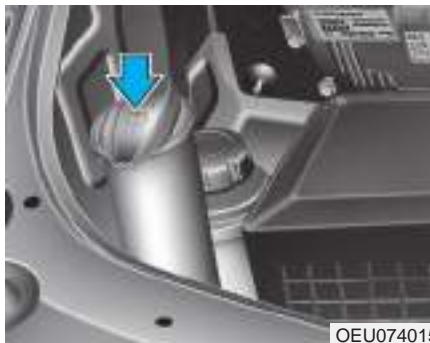
Use only the specified power steering fluid. (Refer to "Recommended lubricants or capacities" in section 9.)

Checking the power steering hose

Check the connections for oil leaks, damage and twists in the power steering hose before driving.

WASHER FLUID

Checking the washer fluid level



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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.

WARNING

- Do not use radiator coolant or antifreeze in the washer fluid reservoir.
- Radiator coolant can severely obscure visibility when sprayed on the windshield and may cause loss of vehicle control or damage to paint and body trim.
- Windshield Washer fluid agents contain some amounts of alcohol and can be flammable under certain circumstances. Do not allow sparks or flame to contact the washer fluid or the washer fluid reservoir. Damage to the vehicle or occupants could occur.
- Windshield washer fluid is poisonous to humans and animals. Do not drink and avoid contacting windshield washer fluid. Serious injury or death could occur.

PARKING BRAKE

Checking the parking brake



Check the stroke of the parking brake by counting the number of “clicks” heard while fully applying it from the released position. Also, the parking brake alone should securely hold the vehicle on a fairly steep grade. If the stroke is more or less than specified, we recommend that the system be serviced by an authorized HYUNDAI dealer.

Stroke : 7 “clicks” at a force of 20 kg (44 lbs, 196 N).

FUEL FILTER (FOR DIESEL)

Draining water from fuel filter

The fuel filter for diesel engine plays an important role of separating water from fuel and accumulating the water in its bottom.



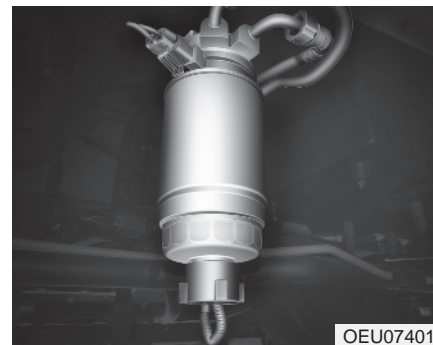
If water accumulates in the fuel filter, the warning light comes on when the ignition switch is in the ON position.

If this warning light turned on, we recommend that the system be serviced by an authorized HYUNDAI dealer.

CAUTION

If the water accumulated in the fuel filter is not drained at proper times, damages to the major parts such as the fuel system can be caused by water permeation in the fuel filter.

Fuel filter cartridge replacement

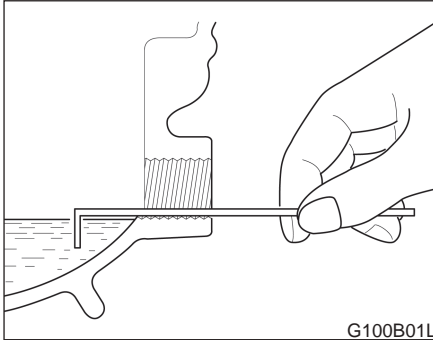


NOTICE

When replacing the fuel filter cartridge, we recommend that you use parts for replacement from an authorized HYUNDAI dealer.

MANUAL TRANSMISSION AND REAR AXLE OIL (IF EQUIPPED)

Check and adding oil



Loosen the inspection plug and inspect the oil is under the inspection plug.

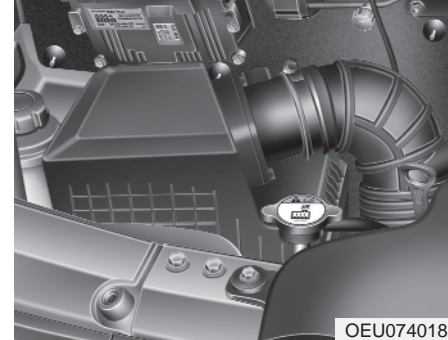
If the oil level is low, add the gear oil.

Change the gear oil

1. After driving, drain the gear oil by loosening the drain plug before the gear oil become cool.
2. Install the drain plug.
3. Refill the gear oil up to check plug inlet.

AIR CLEANER

Filter replacement



It must be replaced when necessary, and should not be cleaned and reused.



1. Loosen the air cleaner cover attaching clips (4EA) and open the cover.



2. Replace the air cleaner filter.
3. Lock the cover with the cover attaching clips.

Replace the filter according to the Maintenance Schedule.

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 section.)

CAUTION

- **Do not drive with the air cleaner 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.**
- **We recommend that you use parts for replacement from an authorized HYUNDAI dealer.**

CLIMATE CONTROL AIR FILTER (IF EQUIPPED)

Filter inspection

The climate control air filter should be replaced according to the maintenance schedule. If the vehicle is operated in severely air-polluted cities or on dusty rough roads for a long period, it should be inspected more frequently and replaced earlier. When you replace the climate control air filter, replace it performing the following procedure, and be careful to avoid damaging other components.

Filter replacement



1. Open the glove box and remove the support rod (1).



2. With the glove box open, remove the stoppers on both sides to allow the glove box to hang freely on the hinges.



3. Remove the climate control air filter cover by turning the cover stopper (1) and then remove the air filters.



4. Replace the climate control air filter.
5. Reassemble in the reverse order of disassembly.

NOTICE

When replacing the climate control air filter install it properly. Otherwise, the system may produce noise and the effectiveness of the filter may be reduced.

WIPER BLADES

Blade inspection



NOTICE

Commercial hot waxes applied by automatic vehicle washes have been known to make the windshield difficult to clean.

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 vehicle 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.

⚠ CAUTION

To prevent damage to the wiper blades, do not use gasoline, kerosene, paint thinner, or other solvents on or near them.

Blade replacement

When the wipers no longer clean adequately, the blades may be worn or cracked, and require replacement.

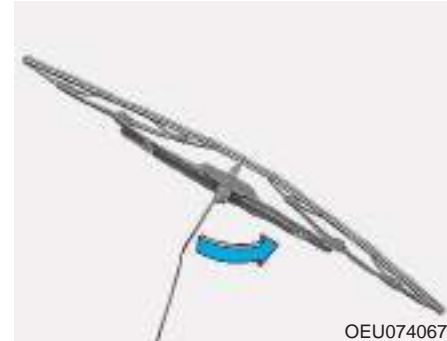
⚠ CAUTION

To prevent damage to the wiper arms or other components, do not attempt to move the wipers manually.

⚠ CAUTION

The use of a non-specified wiper blade could result in wiper malfunction and failure.

Front windshield wiper blade

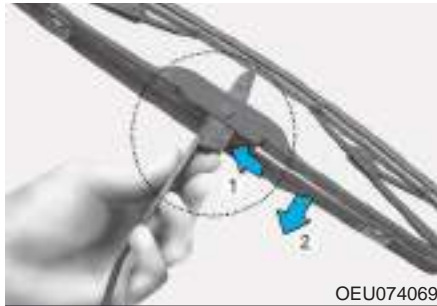


■ Type A

1. Raise the wiper arm.

⚠ CAUTION

Do not allow the wiper arm to fall against the windshield, since it may chip or crack the windshield.



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2. Compress the clip and slide the blade assembly downward.
3. Lift it off the arm.
4. Install the blade assembly in the reverse order of removal.



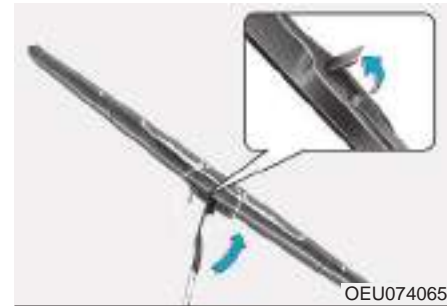
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■ Type B

1. Raise the wiper arm.

⚠ CAUTION

Do not allow the wiper arm to fall against the windshield, since it may chip or crack the windshield.



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2. Turn the wiper blade clip. Then lift up the blade clip.
3. Push the clip (1) and push up the wiper arm (2).



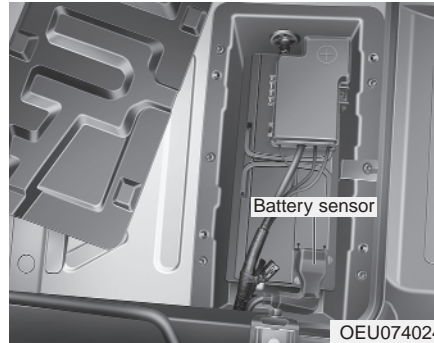
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4. Push down the wiper arm (3) and install the new blade assembly in the reverse order of removal.
5. Return the wiper arm on the wind

BATTERY

For best battery service

Main battery



The main battery is located in the battery case in the driver's footwell.

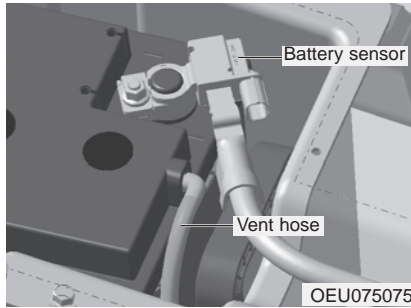
- To remove the battery, remove the floor mat and loosen 4 bolts of the service cover.

WARNING

- Objects cannot enter the driver's footwell. Fit the floor mat securely as specified in order to ensure sufficient clearance for the pedals. Do not use loose floor mats.
- Be careful not to damage the battery sensor when you handle the main battery.

⚠ CAUTION

- When replacing the battery, we recommend that you use parts replacement from an authorized HYUNDAI dealer.
- There is a vent hose for degassing. You must check the connection for venting when you change the battery.



Auxiliary battery (VAN/Truck)

The auxiliary battery is located in engine room. (if equipped)

- 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.

NOTICE

Basically equipped battery is maintenance free type. If your vehicle is equipped with the battery marked with LOWER and UPPER on the side, you can check the electrolyte level. The electrolyte level should be between LOWER and UPPER. If the electrolyte level is low, it needs to add distilled (demineralized) water (Never add sulfuric acid or other electrolyte). When refill, be careful not to splash the battery and adjacent components. And do not overfill the battery cells. It can cause corrosion on other parts. After then ensure that tighten the cell caps. We recommend that you contact an authorized HYUNDAI dealer.

⚠ WARNING

Do not open the AGM battery.

WARNING

Battery dangers



Always read the following instructions carefully when handling a battery.



Keep lighted cigarettes and all other flames or sparks away from the battery.



Hydrogen, a highly combustible gas, is always present in battery cells and may explode if ignited.



Keep batteries out of the reach of children because batteries contain highly corrosive **SULFURIC ACID**. Do not allow battery acid to contact your skin, eyes, clothing or paint finish.

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If any electrolyte gets into your eyes, flush your eyes with clean water for at least 15 minutes and get immediate medical attention.

If electrolyte gets on your skin, thoroughly wash the contacted area. If you feel a pain or a burning sensation, get medical attention immediately.



Wear eye protection when charging or working near a battery. Always provide ventilation when working in an enclosed space.



An inappropriately disposed battery can be harmful to the environment and human health. Dispose the battery according to your local law(s) or regulation.

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- When lifting a plastic-cased battery, excessive pressure on the case may cause battery acid to leak, resulting in personal injury. Lift with a battery carrier or with your hands on opposite corners.
- Never attempt to recharge the battery when the battery cables are connected.
- The electrical ignition system works with high voltage. Never touch these components with the engine running or the ignition switched on.

Failure to follow the above warnings can result in serious bodily injury or death.

CAUTION

If you connect unauthorized electronic devices to the battery, the battery may be discharged. Never use unauthorized devices.

Battery capacity label

■ Example



※ The actual battery label in the vehicle may differ from the illustration.

1. CMF100L-DIN : The HYUNDAI model name of battery
2. 12V : The nominal voltage
3. 100Ah(20HR) : The nominal capacity (in Ampere hours)
4. 190RC : The nominal reserve capacity (in min.)
5. 780CCA (SAE) : The cold-test current in amperes by SAE
6. 625A (EN) : The cold-test current in amperes by EN

Battery recharging

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.

CAUTION

For the vehicle equipped with ISG system (AGM battery), be careful not to damage the battery sensor when the battery is replaced or recharged.

- 1) **When replacing the battery, it should be same one (type, capacity and brand) that is originally installed on your vehicle. If a battery of a different type is replaced, battery sensor may recognize the battery to be abnormal.**
- 2) **When installing the ground cable on the negative post of battery, tighten the clamp with specified torque of 4.0 ~ 6.0 N.m (0.4 ~ 0.6 kgf.m, 3.0 ~ 4.41 lb-ft). An excessive tightening torque can damage the PCB internal circuit.**
- 3) **When recharging the battery, ground the negative terminal of the booster battery to the vehicle body.**

WARNING

Recharging battery

When recharging the battery, observe the following precautions:

- The battery must be removed from the vehicle and placed in an area with good ventilation.
- Do not allow cigarettes, sparks, or flame near the battery.
- Watch the battery during charging, and stop or reduce the charging rate if the battery cells begin gassing (boiling) violently or if the temperature of the electrolyte of any cell exceeds 49°C (120°F).
- Do not charge the AGM battery with over 14.5V. No quick-charging routines
- Wear eye protection when checking the battery during charging.

(Continued)

(Continued)

- 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.
 4. After recharging, park the vehicle for about 5 hours with the hood and all doors closed. During this period, the dark current must be under 100mA.(AGM battery only)

WARNING

- Before performing maintenance or recharging the battery, turn off all accessories and stop the engine.
- The negative battery cable must be removed first and installed last when the battery is disconnected.
- Do not open the AGM battery.

Reset items

Items should be reset after the battery has been discharged or the battery has been disconnected.

- Auto up/down window (See section 3)
- Trip computer (See section 3)
- Climate control system (See section 3)
- Clock (See section 3)
- Audio (See section 4)

TIRES AND WHEELS

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.

Recommended cold tire inflation pressures

All tire pressures (including the spare) should be checked when the tires are cold. "Cold Tires" means the vehicle has not been driven for at least three hours or driven less than 1.6 km (1 mile).

Recommended pressures must be maintained for the best ride, top vehicle handling, and minimum tire wear. For recommended inflation pressure refer to "Tire and wheels" in section 8.

WARNING

- **Overinflation or underinflation can reduce tire life, adversely affect vehicle handling, and lead to sudden tire failure. You must always maintain recommended tire pressures.**

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 underinflated.

- **Tire underinflation**

If the tire pressure drops repeatedly, the wheel, valve or tire may be damaged.

Underinflation results in reducing fitness of tire and wheel, excessive wear, poor handling and reduced fuel economy.

(Continued)

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And it can lead to deformation or abnormal wear of wheel, severe heat build-up, causing blowouts, tread separation and other tire failures that can result in the loss of vehicle control leading to severe injury or death. This risk is much higher on hot days and when driving for long periods at high speeds.

If the problem is not solved (a tire frequently needs refilling), we recommend that the system be checked by an authorized HYUNDAI dealer.

- **Tire overinflation**

Tires with excessively high pressure can burst because they are damaged more easily by road debris, potholes etc.

In addition, they also produce a harsh ride, excessive wear at the center of the tire tread, and a greater possibility of damage from road hazards.

 **CAUTION**

- 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.
- Be sure to reinstall the tire inflation valve caps. 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.

 **WARNING****Tire inflation**

Overinflation or underinflation can reduce tire life, adversely affect vehicle handling, and lead to sudden tire failure. This could result in loss of vehicle control and potential injury.

 **CAUTION****Tire pressure**

Always observe the following:

- Check tire pressure when the tires are cold. (After vehicle has been parked for at least three hours or hasn't been driven more than 1.6 km (1 mile) since startup.)
- Check the pressure of your spare tire each time you check the pressure of other tires.
- Never overload your vehicle. Be careful not to overload a vehicle luggage rack if your vehicle is equipped with one.
- Worn, old tires can cause accidents. If your tread is badly worn, or if your tires have been damaged, replace them.

Checking tire inflation pressure

Check your tires once a month or more.

Also, check the tire pressure of the spare tire.

How to check

Use a good quality gage 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 even when they're underinflated.

Check the tire's inflation pressure when the tires are cold. - "Cold" means your vehicle has been sitting for at least three hours or driven no more than 1.6 km (1 mile).

Remove the valve cap from the tire valve stem. Press the tire gage 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 amount.

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 gage. Be sure to put the valve caps back on the valve stems. They help prevent leaks by keeping out dirt and moisture.

WARNING

- **Inspect your tires frequently for proper inflation as well as wear and damage. Always use a tire pressure gauge.**
- **Tires with too much or too little pressure wear unevenly causing poor handling, loss of vehicle control, and sudden tire failure leading to accidents, injuries, and even death. 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.**
- **Worn tires can cause accidents. Replace tires that are worn, show uneven wear, or are damaged.**
- **Remember to check the pressure of your spare tire. HYUNDAI recommends that you check the spare every time you check the pressure of the other tires on your vehicle.**

Tire rotation

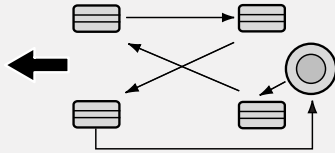
To equalize tread wear, it is recommended that the tires be rotated every 12,000 km (7,500 miles) or sooner if irregular wear develops.

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 tire. Replace the tire if you find either 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.

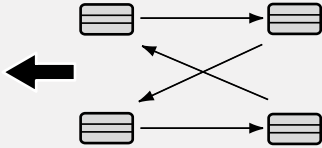
Refer to "Tire and wheels" in section 8.

With a full-size spare tire (if equipped)



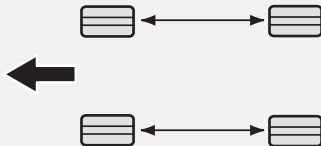
S2BLA790

Without a spare tire



S2BLA790A

Directional tires (if equipped)



CBGQ0707A

Disc brake pads should be inspected for wear whenever tires are rotated.

NOTICE

Rotate radial tires that have an asymmetric tread pattern only from front to rear and not from right to left.

⚠ 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 could result in death, severe injury, or property damage.

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.

⚠ CAUTION

Improper 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.

CAUTION

When replacing the tires, recheck and tighten the wheel nuts after driving about 1,000 km (620 miles). If the steering wheel shakes or the vehicle vibrates while driving, the tire is out of balance. Align the tire balance. If the problem is not solved, we recommend that you contact an authorized HYUNDAI dealer.

WARNING

Replacing tires

- Driving on worn-out tires is very hazardous and will reduce braking effectiveness, steering accuracy, and traction.
- Your vehicle is equipped with tires designed to provide for 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 handling 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.

(Continued)

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- **The use of any other tire size or type may seriously affect ride, handling, ground clearance, stopping distance, body to tire clearance, snow tire clearance, and speedometer reliability.**
- **It is best to replace all four tires at the same time. If that is not possible, or necessary, then replace the two front or two rear tires as a pair. Replacing just one tire can seriously affect your vehicle's handling.**
- **The ABS works by comparing the speed of the wheels. Tire size can affect wheel speed. When replacing tires, all 4 tires must use the same size originally supplied with the vehicle. Using tires of a different size can cause the ABS (Anti-lock Brake System) and ESP (Electronic Stability Program) (if equipped) to work irregularly.**

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.

WARNING

A wheel that is not the correct size may adversely affect wheel and bearing life, braking and stopping abilities, handling characteristics, ground clearance, body-to-tire clearance, snow chain clearance, speedometer and odometer calibration, headlight aim and bumper height.

Tire traction

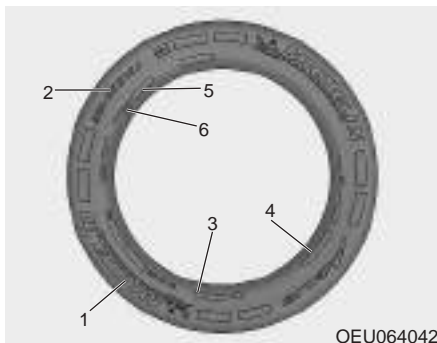
Tire traction can be reduced if you drive on worn tires, tires that are improperly inflated or on slippery road surfaces. Tires should be replaced when tread wear indicators appear. To reduce the possibility of losing control, slow down whenever there is rain, snow or ice on the road.

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 or other repair shops that use qualified technicians 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 vehicle. The following explains what the letters and numbers in the tire size designation mean.

Example tire size designation:

(These numbers are provided as an example only; your tire size designator could vary depending on your vehicle.)

235/65R16 115/113R

235 - Tire width in millimeters.

65 - Aspect ratio. The tire's section height as a percentage of its width.

R - Tire construction code (Radial).

16 - Rim diameter in inches.

113 - Load Index, a numerical code associated with the maximum load the tire can carry. (Dual Tire)

115 - Load Index, a numerical code associated with the maximum load the tire can carry. (Single Tire)

R - 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:

16X6.5J

16 - Rim diameter in inches.

6.5 - Rim width in inches.

J - Rim contour designation.

Tire speed ratings

The chart below lists many of the different speed ratings currently being used for passenger vehicles. 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
Q	160 km/h (99 mph)
R	170 km/h (106 mph)
S	180 km/h (112 mph)
T	190 km/h (118 mph)
U	200 km/h (124 mph)

3. Checking tire life (TIN : Tire Identification Number)

Any tires that are over 6 years, based on the manufacturing date, tire strength and performance, decline with age naturally (even unused spare tires). Therefore, the tires (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 means a plant code number, tire size and tread pattern and the last four numbers indicate week and year manufactured.

For example:

DOT XXXX XXXX 1615 represents that the tire was produced in the 16th week of 2015.

WARNING

Tire age

Tires degrade over time, even when they are not being used. Regardless of the remaining tread, it is recommended that tires generally 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 can result in sudden tire failure, which could lead to a loss of control and an accident involving serious injury or death.

4. Tire ply composition and material

The number of layers or plies of rubber-coated fabric are 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.

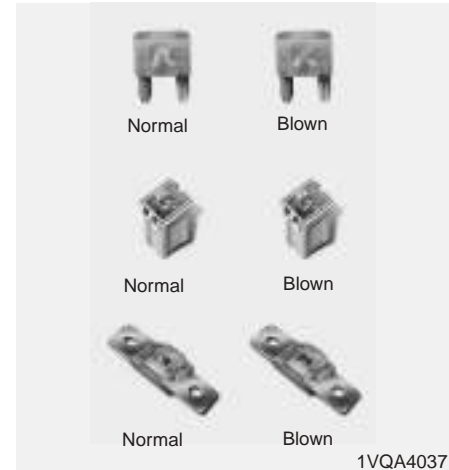
5. Maximum permissible inflation pressure

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.

FUSES



A vehicle's electrical system is protected from electrical overload damage by fuses.

This vehicle has 3 fuse panels, one located in the driver's side panel bolster, the other in the engine compartment near the battery.

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.

If the electrical system does not work, first check the driver's side fuse panel.

Before replacing a blown fuse, 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 and we recommend that you consult an authorized HYUNDAI dealer.

Three kinds of fuses are used: blade type for lower amperage rating, cartridge type, and fusible link for higher amperage ratings.

WARNING

Fuse replacement

- **Never replace a fuse with anything but another fuse of the same rating.**
- **A higher capacity fuse could cause damage and possibly a fire.**
- **Never install a wire or aluminum foil instead of the proper fuse - even as a temporary repair. It may cause extensive wiring damage and a possible fire.**

CAUTION

Do not use a screwdriver or any other metal object to remove fuses because it may cause a short circuit and damage the system.

NOTICE

The actual fuse/relay panel label may differ from equipped items.

CAUTION

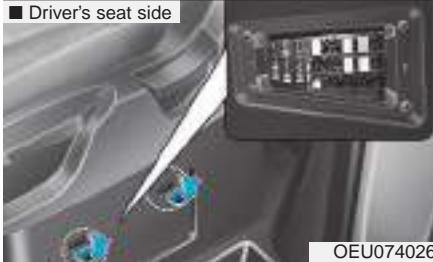
- **When replacing a blown fuse or relay with a new one, make sure the new fuse or relay fits tightly into the clips. The incomplete fastening fuse or relay may cause the vehicle wiring and electric systems damage and a possible fire.**
- **Do not remove fuses, relays and terminals fastened with bolts or nuts. The fuses, relays and terminals may be fastened incompletely, and it may cause a possible fire. If fuses, relays and terminals fastened with bolts or nuts are blown, consult with an authorized HYUNDAI dealer.**
- **Do not input any other objects except fuses or relays into fuse/relay terminals such as a driver or wiring. It may cause contact failure and system malfunction.**

Inner panel fuse replacement

■ Driver's side panel



■ Driver's seat side



■ Main battery



1. Turn the ignition switch and all other switches off.
2. Open the fuse panel cover.



3. Pull the suspected fuse straight out. Use the removal tool provided in the engine compartment fuse panel.
4. Check the removed fuse; replace it if it is blown.
5. 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.

If you do not have a spare, use a fuse of the same rating from a circuit you may not need for operating the vehicle, such as the cigar lighter fuse.

If the headlights or other electrical components do not work and the fuses are OK, check the fuse block in the engine compartment. If a fuse is blown, it must be replaced.

Engine compartment panel fuse replacement



1. Turn the ignition switch and all other switches off.
2. Remove the fuse box cover by pressing the tap and pulling up.
3. 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.
4. 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.

⚠ CAUTION

After checking the fuse box in the engine compartment, securely install the fuse box cover. If not, electrical failures may occur from water leaking in.

Alternator fuse



If the main fuse is blown, it must be removed as follows:

1. Turn off the engine.
2. Disconnect the negative battery cable.
3. Remove the nuts shown in the picture above.
4. Replace the fuse with a new one of the same rating.
5. Reinstall in the reverse order of removal.

Multi fuse



If the multi fuse is blown, it must be removed as follows:

1. Turn off the engine.
2. Disconnect the negative battery cable.
3. Remove the fuse panel on the right side in the engine compartment.
4. Remove the nuts shown in the picture above.
5. Replace the fuse with a new one of the same rating.
6. Reinstall in the reverse order of removal.

NOTICE

If the main fuse is blown, we recommend that you consult an authorized HYUNDAI dealer.

Fuse/Relay panel description

Inside the fuse/relay box covers, you can find the fuse/relay label describing fuse/relay name and capacity.

■ Inner fuse box (Instrument panel)



■ Inner fuse box (Driver's seat side)



■ Battery fuse box



■ Main fuse box



OEU074059/OEU074060/OEU074058/OEU074039

NOTICE

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.

Inner fuse panel (Instrument panel)

No.	Fuse rating	Fuse Name	Circuit Protected
1	15A	WIPER & WASHER	Front Wiper Motor, Washer Motor
2	7.5A	2 A/CON	BLOWER M/HI SIG
3	7.5A	1 EMERGENCY CALL	Emergency-Call (ACC)
4	25A	P/WDW LH	P/WDW Motor Left
5	20A	DDM	Drive Door Module (B+ MIRR)
6	25A	P/WDW RH	P/WDW Motor Right
7	15A	P/OUTLET (FR_LH)	Power Outlet (Front Left)
8	7.5A	1 CM	CM (B+)
9	15A	MULTIMEDIA	AUDIO E300/E800(B+), AVN(B+), LDC Module(B+)
10	20A	ADM	Assist Door Module (B+ MIRR)
11	7.5A	START	START SIG

No.	Fuse rating	Fuse Name	Circuit Protected
12	10A	MEMORY	Cluster (B+), A/C Control Module(B+), Drive Door Module(B+ECU), Assist Door Module(B+ECU), DTG(B+), OBDII (B+)
13	7.5A	BRAKE SW	Brake Switch, Stop Lamp
14	10A	MODULE E-3	Cluster, Drive Door Module, Assist Door Module, A/C Control Module, Seat HTD Switch Left/Right, VDC off Switch, AVN, Seat HTD Module Left/Right, DTG, LDWS Module, RPAS Sensor, Yaw Rate Sensor, Fuel Water Sensor
15	10A	MIDDLE DR LOCK	Middle Door Lock Actuator
16	10A	TAILGATE DR LOCK	Tailgate Door Lock Actuator
17	10A	MODULE E-4	AUDIO E300/E800(ACC), AVN(ACC), LDC Module(ACC), CM(ACC)
18	20A	ENG BOX (IG1)	UH BOX (ABS3 7.5A, SNSR5 7.5A, INHIBITOR 7.5A, BACK UP LAMP 7.5A)
19	10A	DCU	SEAT BOX (DCU SNSR Relay 'S')
20	7.5A	2 CM	CM (IG1)
21	7.5A	MODULE-1	Rain Sensor
22	10A	INTERIOR LAMP	SEAT BOX(PASS ROOM LAMP Relay 'S'), Key Warning Switch, Step Lamp(MID/ASS), OH_CONSOLE Lamp, Map Lamp, Passenger Reading Lamp, Cargo_Lamp(Middle / TGAT)

No.	Fuse rating	Fuse Name	Circuit Protected
23	10A	MODULE-2	HLLD Actuator Left/Right, Glow Relay Module(IG1), Brake Switch, FPAS Sensor, C/PAD Switch, BEZEL Switch, LDC Module(IG1)
24	7.5A	MODULE-5	I_S_MIRR(IG2), CM(IG2), Passenger Heater Module(IG2), Seat HTD Module Left/Right(IG2), F/FILTER Relay 'S'
25	10A	2 IMMO	Immobilizer Module(B+), Key Warning Switch
26	7.5A	1 IMMO	Immobilizer Module(IG1)
27	20A	SEAT BOX (IG2)	SEAT BOX (ELECTRIC VENTILATOR2 10A, A/CON RR(IG2) 10A, IG2 10A(AUX POWER(IG2) Relay 'S'))
28	7.5A	1 A/CON	A/C Control Module(IG2)
29	15A	A/BAG	A/BAG Control Module(IG1)
30	7.5	2 EMERGENCY CALL	Emergency-Call(IG1)

Inner fuse panel (Driver's seat side)

No.	Fuse rating	Fuse Name	Circuit Protected
1	30A	PASS A/CON BLOW LH	Passenger A/CON Blower Motor Left
2	20A	E/POWER STEP	Electric Step Module(B+)
3	30A	PASS A/CON BLOW RH	Passenger A/CON Blower Motor Right
4	7.5A	1 ELECTRIC VENTILATOR	Ventilator Control Module(B+)
5	10A	ROOM LAMP PASS	Room Lamp(Front/Center/Rear)
6	15A	AUX POWER (IG2)	AUX BOX (AUX IG2)
7	30A	1 TRAILER	Trailer Module(B+)
8	25A	SEAT HEATER	Seat HTD Module Left/Right (Warm B+)
9	10A	AUX POWER (ENGINE RUN)	AUX BOX (ENGINE RUN)
10	15A	2 TRAILER	Trailer Module(B+)
11	20A	PRE HEATER 1	Pre Heater Module
12	25A	AUX POWER (B+)	AUX BOX (AUX B+)

Maintenance

No.	Fuse rating	Fuse Name	Circuit Protected
13	15A	3 TRAILER	Trailer Module(B+)
14	30A	PASS A/CON C/FAN LH	Passenger A/CON Blower Motor Left
15	10A	BATTERY SENSOR	Battery Sensor
16	30A	FUEL HTR	Fuel Filter HTR
17	7.5A	PASS HTR/BLOW SIG FR	Passenger Heater Control Module (Blower Motor SIG Front)
18	15A	DCU SENSOR	PM Sensor, NOX Sensor (front/Rear), Dosing Control Module (IG1 INPUT)
19	20A	1 DCU	Dosing Control Module(B+)
20	7.5A	PASS HTR/BLOW SIG RR	Passenger Heater Control Module (Blower Motor SIG Rear)
21	10A	2 ELECTRIC VENTILATOR	Ventilator Control Module (IG2)
22	7.5A	PASS A/CON BLOW SIG LH	A/C Control Module Rear (Blower Motor SIG Left)
23	7.5A	PASS A/CON BLOW SIG RH	A/C Control Module Rear (Blower Motor SIG Right)
24	10A	A/CON RR (IG2)	A/C Control module Rear

No.	Fuse rating	Fuse Name	Circuit Protected
25	20A	2 DCU	Dosing Control Module(B+)
26	20A	3 DCU	Dosing Control Module(B+)
27	10A	IG2	Electric Step Module, SEAT BOX(AUX POWER (IG2) Relay 'S')
28	30A	PASS A/CON C/FAN RH	Passenger A/CON Blower Motor Right
29	25A	PASS HTR FRT	Passenger Heater Blower Motor Front
30	25A	PASS HTR RR	Passenger Heater Blower Motor Rear

Engine compartment main fuse panel

No.	Fuse rating	Fuse Name	Circuit Protected
1	10A	2 A/CON	A/C Compressor PASS
2	15A	4 ECU	Engine Control Module (Permanent Battery (+))
3	10A	1 A/CON	A/C Compressor CAB
4	10A	1 SENSOR	Electric VGT Actuator, EGR Cooling Bypass, UH_BOX(Fuel Pump Relay 'S')
5	10A	SPARE	
6	20A	1 ECU	Engine Control Module (Battery (+))
7	10A	2 SENSOR	UH_BOX(A/CON1 Relay 'S', A/CON2 Relay 'S', CONDENSER FAN Relay LH,RH1/2 'S')
8	20A	2 ECU	Engine Control Module (Battery (+))
9	10A	3 SENSOR	LAMBDA Sensor
10	7.5A	BACK UP LAMP	Rear Combi Lamp Left/Right (Back Up), Inside Mirror (Reverse), Trailer Module (Back Up), Vehicle Dynamic Control Module (Reverse Gear Switch), Reverse Warning Buzzer
11	7.5A	3 ABS	Anti-Lock Brake Module (IG1), Vehicle Dynamic Control Module (IG1), Steering Angle Sensor (IG1)
12	7.5A	5 SENSOR	Air Flow Sensor, Engine Control Module (TERMINAL15(IG1 INPUT))

No.	Fuse rating	Fuse Name	Circuit Protected
13	7.5A	INHIBITOR	UH_BOX(Start Inhibit Relay 'S')
14	60A	3 B+	Smart Junction Box (B+3)
15	60A	VDC	Vehicle Dynamic Control Module (B+ Pump Motor)
16	40A	2 ABS	Anti-Lock Brake Module (B+ Solenoid Valve), Vehicle Dynamic Control Module(B+ Solenoid Valve)
17	40A	1 ABS	Anti-Lock Brake Module (B+ Pump Motor)
18	60A	2 B+	Smart Junction Box (B+2)
19	80A	GLOW	Glow Relay Module (Plus Direct)
20	50A	4 B+	Smart Junction Box (B+4)
21	50A	EMS	Engine Management System Block (B+)
22	15A	HORN	HORN
23	10A	PTO	PTO Magnetic Valve
24	20A	F/PUMP	Fuel Pump Sender (Fuel Pump Motor(+))

Maintenance

No.	Fuse rating	Fuse Name	Circuit Protected
25	15A	B/A HORN	Burglar Alarm Horn
26	25A	C/LIGHTER P/OUTLET RR	Cigar Lighter, luggage Room Power Outlet
27	25A	P/OUTLET CTR & RH	Power Outlet (Center, front Right)
28	20A	DEICER	DEICER
29	40A	CONDENSER FAN	A/C Condenser Fan Motor Left/Right
30	30A	WIPER FRT	Front Wiper Motor
31	50A	4 PTC HEATER	PTC Heater EXTN (PTC4+)
32	50A	3 PTC HEATER	PTC Heater EXTN (PTC3+)
33	50A	2 PTC HEATER	PTC Heater EXTN (PTC2+)
34	50A	1 PTC HEATER	PTC Heater EXTN (PTC1+)

No.	Fuse rating	Fuse Name	Circuit Protected
35	40A	IG2	IGN_Switch (B2), Start Solenoid
36	50A	IG1	IGN_Switch (B1)
37	50A	1 B+	Smart Junction Box (B+1)
38	50A	BLOWER	Blower Motor
39	150A	ALT	ALTERNATOR
	200A	ALT	ALTERNATOR

Battery fuse panel

No.	Fuse rating	Fuse Name	Circuit Protected
1	40A	DCU_MAIN	Dosing Control Module (B+)
2	150A	PASS,HTR(BUS) PASS,A/CON(BUS) AUX,BATT(TRK/VAN)	1. BUS : SEAT BOX (PASS HTR FRT 25A, PASS HTR/BLOW SIG FR 7.5A, PASS HTR RR 25A, PASS HTR/BLOW SIG RR 7.5A, PASS A/CON C/FAN LH 30A, PASS A/CON C/FAN RH 30A, PASS A/CON BLOW LH 30A, PASS A/CON BLOW SIG LH 7.5A, PASS A/CON BLOW RH 30A, PASS A/CON BLOW SIG RH 7.5A) 2. VAN/TRUCK : AUX Battery
3	70A	2 SEAT_F/BOX	SEAT BOX (B+2/B+3), PM Sensor, NOX Sensor (front/Rear), Dosing Control Module (IG1 INPUT)
4	70A	1 SEAT_F/BOX	SEAT BOX (B+1/B+4)

LIGHT BULBS

WARNING

Working on the lights

Prior to working on the light, firmly apply the parking brake, ensure that the ignition switch is turned to the “LOCK” position and turn off the lights to avoid sudden movement of the vehicle and burning your fingers or receiving an electric shock.

Use only the bulbs of the specified wattage.

CAUTION

Be sure to replace the burned-out bulb with one of the same wattage rating. Otherwise, it may cause damage to the fuse or electric wiring system.

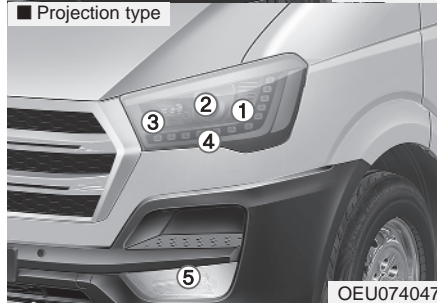
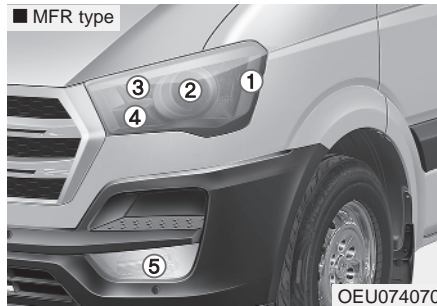
CAUTION

If you don't have necessary tools, the correct bulbs and the expertise, we recommend that you consult an authorized HYUNDAI dealer. In many cases, 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 if you have to remove the headlight assembly to get to the bulb(s). Removing/installing the headlight assembly can result in damage to the vehicle.

NOTICE

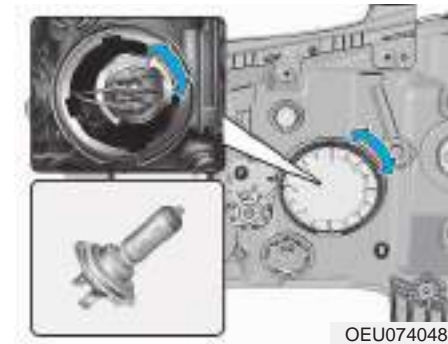
After heavy, driving rain or washing, headlight and taillight lenses could appear frosty. This condition is caused by the temperature difference between the lamp inside and outside. This is similar to the condensation on your windows inside your vehicle during the rain and doesn't indicate a problem with your vehicle. If water leaks into the lamp bulb circuitry, we recommend that the system be checked by an authorized HYUNDAI dealer.

Headlight, position light, turn signal light, front fog light bulb replacement



- (1) Front turn signal light
- (2) Headlight (Low)
- (3) Headlight (High)
- (4) Position light and DRL (LED) (if equipped)
- (5) Front fog light (if equipped)

Headlight (Replacement)



MFR type (High / Low) and projection type (High)

1. Open the hood.
2. Remove the headlight bulb cover by turning it counterclockwise.
3. Disconnect the headlight bulb socket-connector.
4. Unsnap the headlight bulb retaining wire by depressing the end and pushing it upward.
5. Remove the bulb from the headlight assembly.

6. Install a new headlight bulb and snap the headlight bulb retaining wire into position by aligning the wire with the groove on the bulb.
7. Connect the headlight bulb socket-connector.
8. Install the headlight bulb cover by turning it clockwise.

Projection type (Low)

1. Open the hood.
2. Remove the headlight bulb cover by turning it counterclockwise.
3. Remove the bulb socket by turning it counterclockwise and remove by pulling the bulb.
4. Install in the reverse order of removal.

NOTICE

We recommend that the headlight aiming be adjusted after an accident or after the headlight assembly is reinstalled at an authorized HYUNDAI dealer.



OEU074062

⚠ WARNING

Halogen bulbs

- Halogen bulbs contain pressurized gas that will produce flying pieces of glass if broken.

(Continued)

(Continued)

- Always handle them carefully, and avoid scratches and abrasions. If the bulbs are lit, avoid contact with liquids. Never touch the glass with bare hands. Residual oil may cause the bulb to overheat and burst when lit. A bulb should be operated only when installed in a headlight.
- If a bulb becomes damaged or cracked, replace it immediately and carefully dispose of it.
- Wear eye protection when changing a bulb. Allow the bulb to cool down before handling it.

Turn signal light/Position light

Turn signal light

1. Turn off the engine and open the hood.
2. Remove the socket from the assembly by turning the socket counterclockwise until the tabs on the socket align with the slots on the assembly.
3. 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.
4. Insert a new bulb by inserting it into the socket and rotating it until it locks into place.
5. Install the socket in 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.

Position light

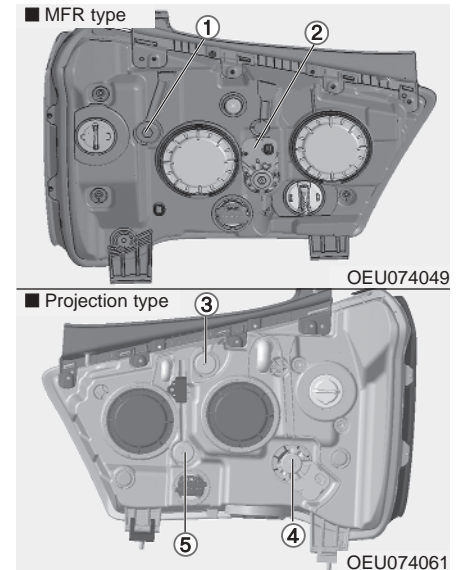
If the light bulb does not operate, we recommend that the system be checked by an authorized HYUNDAI dealer.

Front fog light bulbs (if equipped)

1. Remove the front bumper under cover.
2. Reach your hand into the back of the front bumper.
3. Disconnect the power connector from the socket.
4. Remove the bulb-socket from the housing by turning the socket counter clockwise until the tabs on the socket align with the slots on the housing.
5. Install the new bulb-socket into the housing by aligning the tabs on the socket with the slots in the housing. Push the socket into the housing and turn the socket clockwise.
6. Connect the power connector to the socket.
7. Reinstall the front bumper under cover.

Headlight and front fog light aiming (for Europe)

Headlight aiming



1. Inflate the tires to the specified pressure and remove any loads from the vehicle except the driver, spare tire, and tools.

2. The vehicle should be placed on a flat floor.
3. Draw vertical lines (Vertical lines passing through respective head lamp centers) and a horizontal line (Horizontal line passing through center of head lamps) on the screen.
4. With the head lamp and battery in normal condition, aim the head lamps so the brightest portion falls on the horizontal and vertical lines.

5-1. MFR type

To aim the low/high beam left or right, turn the screw (1) clockwise or counterclockwise. To aim the low/high beam up or down, turn the screw (2) clockwise or counterclockwise.

5-2. Projection type

1) Low beam aiming

To aim the low beam left or right, turn the screw (3) clockwise or counterclockwise.

To aim the low beam up or down, turn the screw (4) clockwise or counterclockwise.

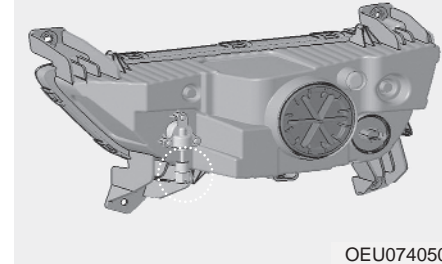
2) High beam aiming

High beam aiming is available up direction or down.

To aim the high beam up or down, turn the screw (5) clockwise or counterclockwise.

Front fog light aiming

■ Fog light aiming

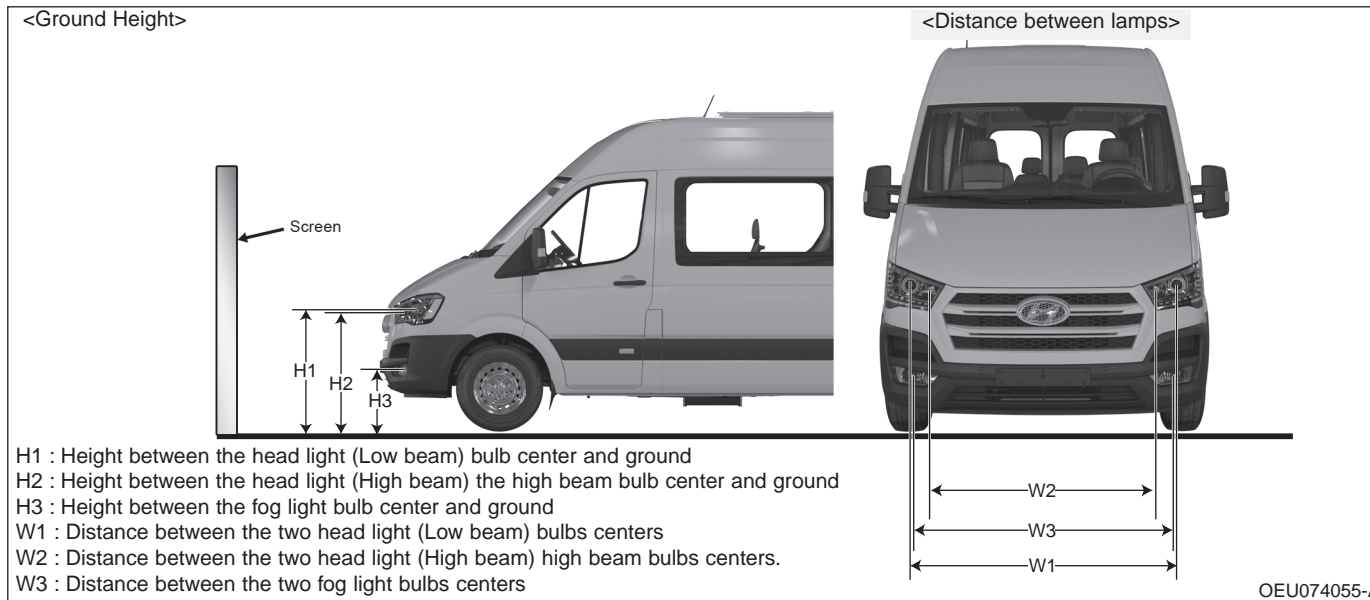


OEU074050

The front fog light can be aimed in the same manner as the head lamps.

With the front fog lights and battery in normal condition, aim the front fog lights. To aim the front fog light up or down, turn the bolt clockwise or counterclockwise.

Aiming point



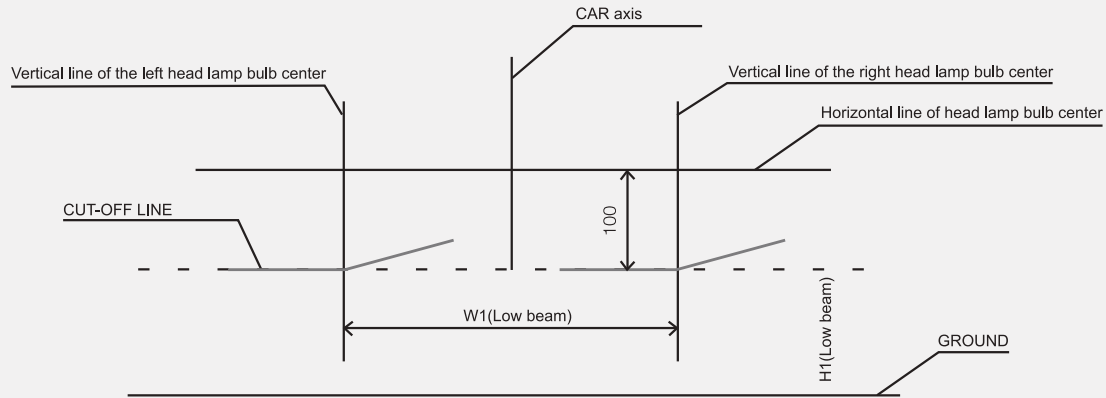
OEU074055-A

Unit: mm (in)

Vehicle condition		Head light				Fog light	
		H1	H2	W1	W2	H3	W3
Projection type	Without driver	960.5 (37.8)	942 (37)	1,488 (58.6)	1,274 (50.2)	456.5 (18)	1,480 (58.3)
	With driver	960.5 (37.8)	942 (37)	1,488 (58.6)	1,274 (50.2)	456.5 (18)	1,480 (58.3)
MFR type	Without driver	948 (37.3)	944 (37.2)	1,540(60.2)	1,280 (50.4)	456.5 (18)	1,480 (58.3)
	With driver	948 (37.3)	944 (37.2)	1,540(60.2)	1,280 (50.4)	456.5 (18)	1,480 (58.3)

Head light low beam

■ Based on 10m screen

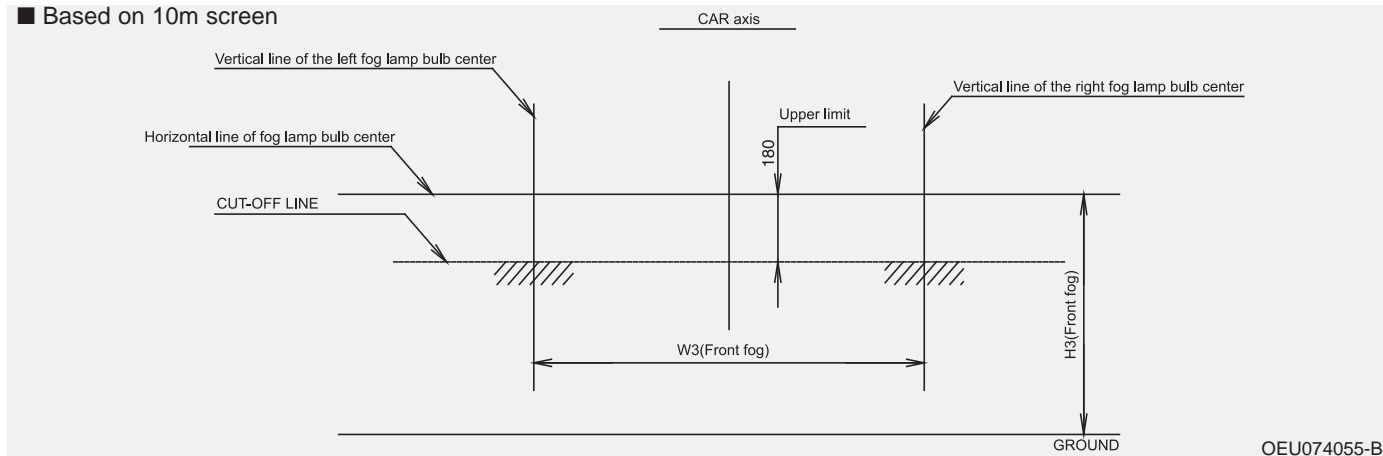


OMD051054L-1

1. Turn the low beam on without driver aboard.
2. The cut-off line should be projected in the cut-off line shown in the picture.
3. When aiming the low beam, vertical aiming should be adjusted after adjusting the horizontal aiming.
4. If head light leveling device is equipped, adjust the head light leveling device switch with 0 positions.

Front fog light

■ Based on 10m screen



1. Turn the front fog lamp on with the driver (75 kg) aboard.
2. The cut-off line should be projected in the allowable range (shaded region).

Side marker lamp



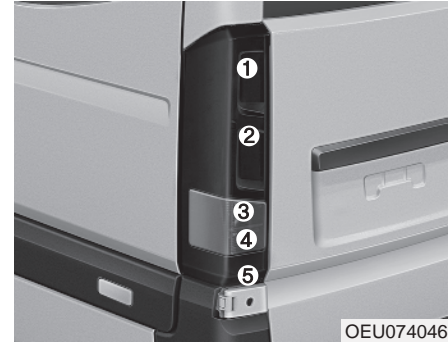
1. To remove the lamp, pry the lamp with a flat-tip screwdriver and push it rearward.
2. Disconnect the wiring connector, and remove the bulb by turning the bulb socket counterclockwise.
3. To install the bulb, reverse the removal procedure.

CAUTION

- When prying with a flat-tip screwdriver, wrap it with protective tape to prevent damage.
- Put on gloves to protect your hands.

Rear combination light bulbs replacement

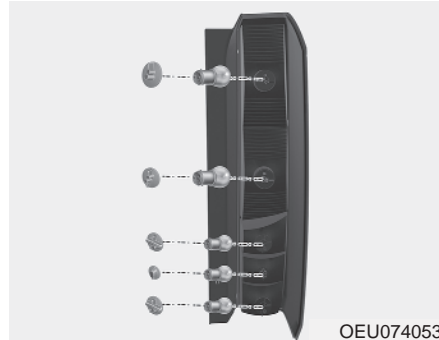
BUS, VAN



1. Tail/stop light
2. Tail/stop light
3. Turn signal light
4. Back up light
5. Rear fog light



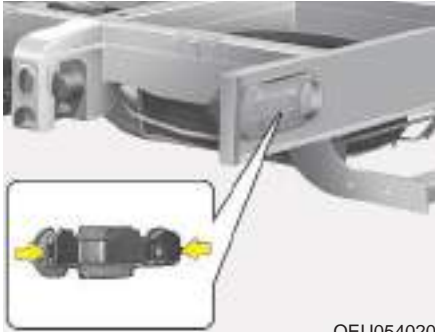
1. Open the rear door.
2. Loosen the light assembly retaining screws with a cross-tip screwdriver.
3. Remove the rear combination light assembly from the body of the vehicle.



4. Remove the socket from the assembly by turning the socket counter clockwise until the tabs on the socket align with the slots on the assembly.
5. Remove the bulb from the socket by pressing it in and rotating it counter clockwise until the tabs on the bulb align with the slots in the socket. Pull the bulb out of the socket.
6. Insert a new bulb by inserting it into the socket and rotating it until it locks into place.

7. Install the socket in the assembly by aligning the tabs on the socket with the slots in the assembly. Push the socket into the assembly and turn the socket clockwise.
8. Reinstall the light assembly to the body of the vehicle.

VAN



OEU054020

1. Disconnect the power cord from the bulb.



OEU054021

2. Remove the cover by pressing the both sides of the cover.



OEU054022

3. To replace the rear combination light (stop/tail light, turn signal light or back-up light), take it out from the bulb holder by turning it counterclockwise.

- (1) Turn Signal Light
- (2) Stop/Tail Light
- (3) Back-up Light

4. Install the new bulb.

High mounted stop light bulb replacement (if equipped)



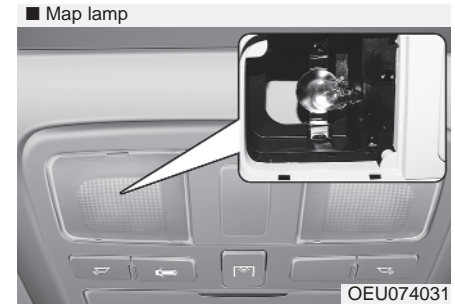
If the light does not operate, we recommend that the system be checked by an authorized HYUNDAI dealer.

License plate light bulb replacement (if equipped)



1. Remove the lens by pressing the tabs.
2. Remove the socket from the lens.
3. Remove the bulb by pulling it straight out.
4. Install a new bulb in the socket and install the socket to the lens.
5. Reinstall the lens securely.

Interior light bulb replacement



1. Using a flat-blade screwdriver, gently pry the lens from the interior light housing.
2. Remove the bulb by pulling it straight out.

 **WARNING**

Prior to working on the Interior Lights, ensure that the “OFF” button is depressed to avoid burning your fingers or receiving an electric shock.

3. Install a new bulb in the socket.
4. Align the lens tabs with the interior light housing notches and snap the lens into place.

 **CAUTION**

Use care not to dirty or damage lens, lens tab, and plastic housings.

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.

CAUTION

- 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.

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.



CAUTION

- 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.

Waxing

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.

CAUTION

- **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.**

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.

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 bright-metal parts from corrosion, apply a coating of wax or chrome preservative and rub to a high luster.
- During winter weather or in coastal areas, cover the bright metal parts with a heavier coating of wax or preservative. If necessary, coat the parts with non-corrosive petroleum jelly or other protective compound.

Underbody maintenance

Corrosive materials used for ice and snow removal and dust control may collect on the underbody. If these materials are not removed, accelerated rusting can occur on underbody parts such as the fuel lines, frame, floor pan and exhaust system, even though they have been treated with rust protection.

Thoroughly flush the vehicle underbody and wheel openings with lukewarm or cold water once a month, after off-road driving and at the end of each winter. Pay special attention to these areas because it is difficult to see all the mud and dirt. It will do more harm than good to wet down the road grime without removing it. The lower edges of doors, rocker panels, and frame members have drain holes that should not be allowed to clog with dirt; trapped water in these areas can cause rusting.

WARNING

After washing the vehicle, test the brakes while driving slowly to see if they have been affected by water. If braking performance is impaired, dry the brakes by applying them lightly while maintaining a slow forward speed.

Aluminum or chrome wheel maintenance

The aluminum or chrome wheels are coated with a clear protective finish.

- Do not use any abrasive cleaner, polishing compound, solvent, or wire brushes on aluminum or chrome wheels. They may scratch or damage the finish.
- 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. This helps prevent corrosion.
- Avoid washing the wheels with high-speed vehicle wash brushes.
- Do not use any alkaline or acid detergent. It may damage and corrode the aluminum or chrome wheels coated with a clear protective finish.

Corrosion protection

Protecting your vehicle from corrosion

By using the most advanced design and construction practices to combat corrosion, we produce 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 the 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 vehicle 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 carpeting 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.

 **CAUTION**

Never allow water or other liquids to come in contact with electrical/electronic components inside the vehicle as this may damage them.

 **CAUTION**

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

Remove dust and loose dirt from vinyl with a whisk broom or vacuum cleaner. Clean vinyl surfaces with a vinyl cleaner.

Fabric

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.

 **CAUTION**

Using anything but recommended cleaners and procedures may affect the fabric's appearance and fire-resistant properties.

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.

 **CAUTION**

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 assure the proper function of the emission control systems, it is recommended that you have your vehicle inspected and maintained by an authorized HYUNDAI dealer or other repair shops that use qualified technicians in accordance with the maintenance schedule in this manual.

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.

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.

Vehicle modifications

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

In addition, damage or performance problems resulting from any modification may not be covered under warranty.

- If you use unauthorized electronic devices, it may cause the vehicle to operate abnormally, wire damage, battery discharge and fire. For your safety, do not use unauthorized electronic devices.

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

Exhaust

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)

⚠ WARNING

Fire

- **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, you may get burned.**

Also, do not remove the heat sink around the exhaust system, do not seal the bottom of the vehicle or 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:


- 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 ignition off and descending steep grades in gear with the ignition 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 the system be inspected by an authorized HYUNDAI dealer.
- Avoid driving with an extremely low fuel level. Running out of fuel cause the engine to misfire, damaging 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 (if equipped)

The Diesel Particulate Filter (DPF) system removes the soot emitted from the vehicle.

Unlike a disposable air filter, the DPF system automatically burns (oxidizes) and removes the accumulated soot according to the driving condition. In other words, the active burning by engine control system and high exhaust gas temperature caused by normal/high driving condition burns and removes the accumulated soot.

However, if the vehicle continues to be driven in short distance repeatedly or at low speed for a long time, the accumulated soot may not be automatically removed because of low exhaust gas temperature. In this particular case, if the amount of soot is out of detection limit, the DPF warning indicator () will illuminate.

In order to start the DPF regeneration and to stop the DPF warning lamp illuminating, drive the vehicle in a safety driving circumstance with more than 60km/h (37 mph) vehicle speed or with more than second gear engaged and 1500 ~ 2000 engine rpm for a certain time (for about 25 minutes).

If the DPF warning indicator() continues to blink or "check emission system" message comes on in the cluster in spite of the above procedure, we recommend that the system be checked by an authorized HYUNDAI dealer.

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



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.

Specifications & Consumer information

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Engine	8-3
Air conditioning system	8-3
Bulb wattage	8-4
Tires and wheels	8-5
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DIMENSIONS

unit : mm (in)

ITEM	BUS	VAN		Truck	
		Long	Short	Long	Short
Overall length [With rear step]	6,195 (243.9)	6,195 (243.9) [6,365 (250.6)]	5,515 (217.1) [5,685 (223.9)]	6,167 (242.8)	5,724 (225.4)
Overall width [With outside rear view mirror]	2,038 (80.2) [2,436 (96.0)]	2,038 (80.2) [2,436 (96.0)]	2,038 (80.2) [2,436 (96.0)]	2,038 (80.2) [2,436 (96.0)]	2,038 (80.2) [2,436 (96.0)]
Overall height	Roof panel	2,665 (105.0)	2,690 (106.0)	2,320 (91.3)	2,320 (91.3)
	Roof hatch	2,673 (105.2)	-	-	-
	Electric vent	2,777 (109.3)	-	-	-
	A/CON	2,856 (111.6)	-	-	-
Front tread	1,712 (67.4)	1,712 (67.4)	1,712 (67.4)	1,712 (67.4)	1,712 (67.4)
Rear tread	1,718 (67.6)	1,718 (67.6)	1,718 (67.6)	1,718 (67.6)	1,718 (67.6)
Wheelbase	3,670 (144.5)	3,670 (144.5)	3,435 (135.2)	3,670 (144.5)	3,435 (135.2)

ENGINE

Item	D4CB
Displacement cc (cu. in.)	2,497 (152.38)
Bore x Stroke mm (in.)	91X96 (3.58X3.77)
Firing order	1-3-4-2
No. of cylinders	4. In-line

AIR CONDITIONING SYSTEM

unit : g





Item		Bus			VAN, Truck
		Driver	Driver + Passenger	Driver + Passenger (Twin compressor)	Driver
Refrigerant	Weight of volume	700	1,150	2,100 (700 +1,400)	700
	Classification	R134a			
Compressor lubricant	Weight of volume	130	270	Driver (130), Passenger (270)	130
	Classification	PAG oil			

BULB WATTAGE

Light Bulb	Wattage	
	MFR	Projection
Headlights (Low/High)	55	
Front fog lights*	35	
Front turn signal lights	21	21
Front position lights	5	LED
DRL lights*	21	LED
Side repeater	LED	
Side marker lights*	5	
Rear stop / tail lamp	21/5	
Back up lamp	16	
Rear turn signal lamp	21	
Rear fog lights	21	
License plate light	5	
High mounted stop light	LED	
Over head console lamps	10	
Room lamps*	LED (if equipped)	10
Step lamp*	5	
Cargo lamps*	10	
Reading lamps*	LED	

* If equipped

TIRES AND WHEELS

Item	Tire size	Wheel size	Inflation pressure bar (psi, kPa)				Wheel lug nut torque kg•m (lb•ft, N•m)
			Normal load ( + )		Maximum load ( + )		
			Front	Rear	Front	Rear	
VAN, Truck	235/65R16C	16x6.5J	49 (338)	64 (442)	49 (338)	64 (442)	9~11 (67~81, 90~110)
BUS	235/65R16C	16x6.5J	49 (338)	69 (476)	49 (338)	69 (476)	

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

Item	Tire size	Wheel size	Load Capacity		Speed Capacity	
			LI * ¹	kg	SS * ²	km/h
Full size tire	235/65R16C	16x6.5J	115/113	1,215/1,150	R	170

*¹ LI : LOAD INDEX

*² SS : SPEED SYMBOL

GROSS VEHICLE WEIGHT

unit : kg (lbs)


Item	BUS	VAN		Truck
		N1*1	N2*1	
BUS, VAN, Truck	4,000 (8,818)	3,500 (7,716)	4,100 (9,039)	3,500 (7,716)

* *1 : N1:GVW ≤ 3.5 ton, N2 : 3.5 ton < GVW <12 ton

RECOMMENDED LUBRICANTS AND CAPACITIES

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

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

Lubricant		Volume	Classification
Engine oil ^{*1 *2} (drain and refill)	Diesel Engine	8.7 l (9.19 US qt.)	ACEA C2 SAE 15W-40 : -15°C above SAE 10W-30/40 : -20°C above SAE 5W-30/40 : -25°C above SAE 0W-30/40 : -30°C below
Recommends 			
Engine Oil Consumption	Normal driving condition	MAX. 1L /1500 Km	-
	Severe driving condition	MAX. 1L /1000 Km	-
Manual transmission fluid	With PTO	3.5 l (3.7 US qt.)	API GL-4, SAE 75W/85 (Synthetic)
	Without PTO	3.2 l (3.38 US qt.)	
Rear axle oil	Tropical zone	2.5 ± 0.25 l (2.64 ± 0.26 US qt.)	API GL-5, SAE 140
	Temperated/frigid zone	2.5 ± 0.25 l (2.64 ± 0.26 US qt.)	API GL-5, SAE 80W90
Coolant	BUS	15 l (15.9 US qt.) 15.2 l (16.1 US qt.) (with preheat)	Mixture of antifreeze and distilled water (Ethylene glycol base coolant for aluminum radiator)
	VAN, Truck	11.2 l (11.8 US qt.)	
Power steering fluid		1.15 l (1.2 US qt.)	PSF-3

*1 Refer to the recommended SAE viscosity numbers on 8-9 page.

*2 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.

Specifications & Consumer information

Lubricant	Volume	Classification
Brake/clutch fluid	0.984 l (1.04 US qt.)	FMVSS116 DOT-4
Urea solution	22 l (23.2 US qt.)	AUS 32 DIN V70070, ISO/DIS 22241-1 (If the vehicle is driven with urea solution volume less than 4%, engine output will be limited. And if it is less than 1%, vehicle speed will be limited to 20 km/h.)
Fuel	75 l (79.3 US gal.)	Refer to "Fuel requirements" in foreword
Urea consumption per liter	580 km	

Available Engine oil (For Europe)

Supplier	Product
	Diesel Engine
Shell	HELIX ULTRA AP-L 5W-30

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.

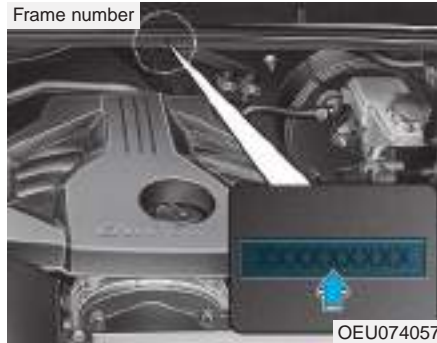
Engine oil viscosity (thickness) has an effect on fuel economy and cold weather operating (engine start and engine oil flowability). Lower viscosity engine oils can provide better fuel economy and cold weather performance, however, higher viscosity engine oils are required for satisfactory lubrication 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.

Temperature Range for SAE Viscosity Numbers										
Temperature	°C	-30	-20	-10	0	10	20	30	40	50
	(°F)	-10	0	20	40	60	80	100	120	
Diesel Engine Oil									15W-40	
									10W-30/40	
									5W-30/40	
									0W-30/40	

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 bulkhead.



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

VEHICLE CERTIFICATION LABEL



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

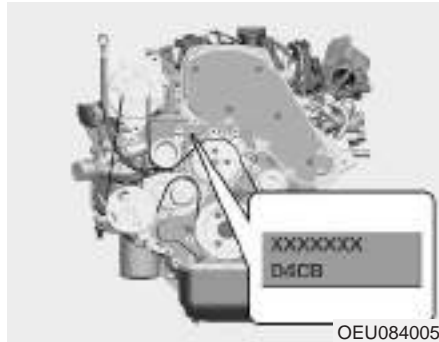
TIRE SPECIFICATION AND PRESSURE LABEL



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

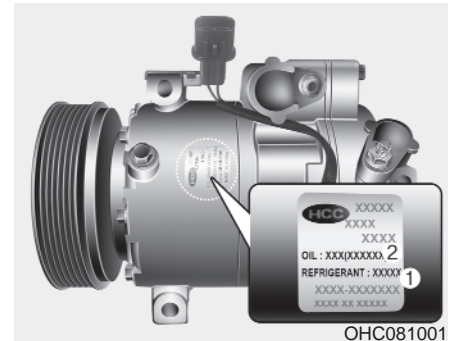
The tire label located on the driver's side center pillar gives the tire pressures recommended for your vehicle.

ENGINE NUMBER



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

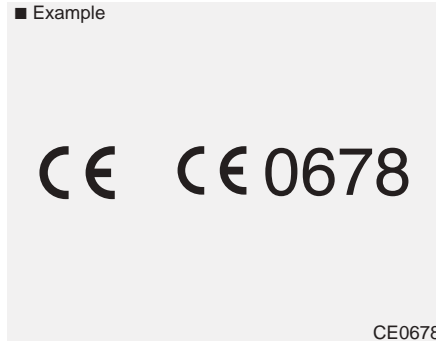
AIR CONDITIONER COMPRESSOR LABEL



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

DECLARATION OF CONFORMITY

■ Example



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>

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