

FOREWORD

Dear Customer,

Thank you for selecting your new Kia vehicle.

As a global car manufacturer focused on building high-quality vehicles with exceptional value, Kia is dedicated to providing you with a customer service experience that exceeds your expectations.

An authorized Kia dealership where factory-trained technicians, recommended special tools, and genuine Kia replacement parts are provided can help if you need technical assistance.

This Owner's Manual will acquaint you with the operation of features and equipment that are either standard or optional on this vehicle, along with the maintenance needs of this vehicle. Therefore, you may find some descriptions and illustrations not applicable to your vehicle. You are advised to read this publication carefully and follow the instructions and recommendations. Please always keep this manual in the vehicle for your, and any subsequent owner's, reference.

All information contained in this Owner's Manual was accurate at the time of publication. However, as Kia continues to make improvements to its products, the company reserves the right to make changes to this manual or any of its vehicles at any time without notice and without incurring any obligations.

Please drive safely, and enjoy your Kia vehicle!

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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 minimise 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 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.

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

You will find various WARNINGS, CAUTIONS, and NOTICES in this manual. These WARNINGS were prepared to enhance your personal safety. You should carefully read and follow ALL procedures and recommendations provided in these WARNINGS, CAUTIONS and NOTICES.

WARNING

A WARNING indicates a situation in which harm, serious bodily injury or death could result if the warning is ignored.

CAUTION

A CAUTION indicates a situation in which damage to your vehicle could result if the caution is ignored.

NOTICE

A NOTICE indicates interesting or helpful information is being provided.

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Introduction

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 restart.

⚠ CAUTION

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

⚠ CAUTION

Diesel Fuel (if equipped with DPF)

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

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

Biodiesel

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

⚠ CAUTION

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

Vehicle modifications

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

In addition, damage or performance problems resulting from any modification may not be covered under warranty.

- If you use unauthorised electronic devices, it may cause the vehicle to operate abnormally, wire damage, battery discharge and fire. For your safety, do not use unauthorised electronic devices.

Vehicle break-In process

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

- Do not race the engine.
- 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.
- Avoid full-throttle starts.
- Fuel economy and engine performance may vary depending on vehicle break-in process and be stabilized after 6,000 km (4,000 miles). New engines may consume more oil during the vehicle break-in period.

Your vehicle at a glance

2

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Your vehicle at a glance

Exterior overview



OPU0121017R

* The actual shape may differ from the illustration.

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OPU0121018R

* The actual shape may differ from the illustration.

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OPU0121011R

* The actual shape may differ from the illustration.

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Engine compartment

(Diesel) 2.5 VGT - Engine



(Diesel) 2.5 VGT - Bonnet



* The actual engine room in the vehicle may differ from the illustration.

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(Diesel) 2.7 VGT - Engine



(Diesel) 2.7 VGT - Engine



* The actual engine room in the vehicle may differ from the illustration.

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Safety features of your vehicle

Seat

WARNING

Loose objects

Loose objects in the driver's foot area could interfere with the operation of the foot pedals, possibly causing an accident. Do not place anything under the front seats.

WARNING

Uprighting seat

When you return the seatback to its upright position, hold the seatback and return it slowly and be sure there are no other occupants around the seat. If the seatback is returned without being held and controlled, the back of the seat could spring forward resulting in accidental injury to a person struck by the seatback.

WARNING

Driver responsibility for passengers

Riding in a vehicle with the seatback reclined could lead to serious or fatal injury in an accident. If a seat is reclined during an accident, the occupant's hips may slide under the lap portion of the seat belt applying great force to the unprotected abdomen. Serious or fatal internal injuries could result. The driver must advise the passenger to keep the seatback in an upright position whenever the vehicle is in motion.

WARNING

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

WARNING

Driver's seat

- Never attempt to adjust the seat whilst the vehicle is moving. This could result in loss of control, and an accident causing death, serious injury, or property damage.
- Do not allow anything to interfere with the normal position of the seatback. Storing items against a seatback or in any other way interfering with proper locking of a seatback could result in serious or fatal injury in a sudden stop or collision.
- Always drive and ride with your seatback upright and the lap portion of the seat belt snug and low across the hips. This is the best position to protect you in case of an accident.
- In order to avoid unnecessary and perhaps severe air bag injuries, always sit as far back as possible from the steering wheel whilst maintaining comfortable control of the vehicle. We recommend that your chest be at least 25 cm (10 inches) away from the steering wheel.

⚠ WARNING

After adjusting the seat, always check that it is securely locked into place by attempting to move the seat forward or backward without using the lock release lever. Sudden or unexpected movement of the driver's seat could cause you to lose control of the vehicle resulting in an accident.

⚠ WARNING

- Do not adjust the seat whilst wearing seat belts. Moving the seat cushion forward may cause strong pressure on the abdomen.
- Use extreme caution so that hands or other objects are not caught in the seat mechanisms whilst the seat is moving.
- Do not put a cigarette lighter on the floor or seat. When you operate the seat, gas may gush out of the lighter and cause fire.
- Use extreme caution when picking small objects trapped under the seats or between the seat and the centre console. Your hands might be cut or injured by the sharp edges of the seat mechanism.

⚠ CAUTION**Precautions with seat covers**

- Use caution when working on the seat cover. A short circuit or disconnection may occur, which could lead to noise, damage the ventilation system, and possible fire.
- Be aware of wires or air vents when placing a seat cover or covering the seat with plastic cover. A short circuit may occur, which could lead to fire.

Feature of Seat Leather

- Our car seats are upholstered with a combination of artificial and genuine leather. The genuine leather is made from the outer skin of an animal, which goes through a special process to be available for use. Since it is a natural substance, each part differs in thickness or density. Also, wrinkles could appear depending on the temperature and humidity.
- The seat is made of stretchable fabric to improve comfort.
- The parts contacting the body are curved and the side supporting area is high which provides driving comfort and stability.
- Wrinkles may appear naturally from usage. It is not a fault of the product.

⚠ CAUTION

- Wrinkles or abrasions which appear naturally from usage are not covered by warranty.
- Belts with metallic accessories, zippers or keys inside the back pocket may damage the seat fabric.
- Make sure not to wet the seat. It may change the nature of leather.
- Jeans or clothes which could bleach may contaminate the surface of the seat covering fabric.

Front seat adjustment

Forward and backward (driver seat)



To move the seat forward or backward:

1. Pull the seat slide adjustment lever under the front edge of the seat cushion up and hold it.
2. Slide the seat to the position you desire.
3. Release the lever and make sure the seat is locked in place.

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

seatback angle (if equipped)



To recline the seatback:

1. Lean forward slightly and lift up on the seatback recline lever located on the outside of the seat, at the rear.
2. Carefully lean back on the seat and adjust the seatback to the position you desire.
3. Release the lever and make sure the seatback is locked in place. (The lever **MUST** return to its original position for the seatback to lock.)

⚠ WARNING

Driving or riding in a vehicle with a front seatback reclined could lead to serious or fatal injury in an accident. If a front seat is reclined during an accident, the occupant's hips may slide under the lap portion of the safety belt applying great force to the unprotected abdomen or neck. Serious or fatal internal injuries could result. Keep the seatbacks in a comfortably upright position whenever the vehicle is in motion.

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



The lumbar support can be adjusted by pressing the lumbar support switch on the side of the seat.

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

Headrest (for front seat)

Adjusting the height up and down



The headrest not only provides comfort for the driver and passengers, but also helps to protect the head and neck in the event of a collision.

To raise the headrest, pull it up to the desired position (1).

To lower the headrest, push and hold the release button (2) on the headrest support and lower the headrest to the desired position (3).

For best protection, adjust the headrest so its centre is as high as your ears.

WARNING

- For maximum effectiveness in case of an accident, the headrest should be adjusted so the middle of the headrest is at the same height of the centre of gravity of an occupant's head. Generally, the centre of gravity of most people's head is similar with the height of the top of their eyes. Also,

adjust the headrest as close to your head as possible. For this reason, the use of a cushion that holds the body away from the seatback is not recommended.

- Do not operate the vehicle with the headrests removed. Severe injury to the occupants may occur in the event of an accident. Headrests may provide protection against neck injuries when properly adjusted.
- Do not adjust the headrest position of the driver's seat whilst the vehicle is in motion.

CAUTION



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

Removal/Reinstall



To remove the headrest:

1. Recline the seatback (2) with the recline lever (1).
2. Raise headrest as far as it can go.
3. Press the headrest release button (3) whilst pulling the headrest up (4).

⚠ WARNING

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



To reinstall the headrest :

1. Put the headrest poles (2) into the holes whilst pressing the release button (1).
2. Recline the seatback (4) with the recline lever (3).

3. Adjust the headrest to the appropriate height.

⚠ WARNING

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

⚠ WARNING

To reduce the risk of head and neck injuries, do not drive the vehicle with the headrest removed or improperly positioned.

Do not adjust the driver's headrest whilst driving.

Centre seat



To use it as a console box, push down the release lever beside the seat and fold the seatback forward.

To use it as a seat, push down the release lever beside the seat and stand the seatback upright.

Engine room access

Front passenger's seat

To access the engine room under the front passenger's seat,

1. Fold the passenger's seatback and centre seatback.
2. Unsnap the clasps (1) at the front of the seat cushion.



3. Raise the seat and lock the tiedown strap on the anchor below the passenger's seat to fasten the seat. Use each bezel on the strap to adjust the angle when raising the seat.



WARNING

Do not leave gloves, rags or any other combustible material in the engine com-

partment. Doing so may cause a heat-induced fire.

WARNING

(Diesel) 2.5 VGT

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 whilst engine is running, since the high currents in the electronic engine control system produce considerable magnetic fields.

Seat belts

Seat belt restraint system

WARNING

- For maximum restraint system protection, the seat belts must always be used whenever the vehicle is moving.
- Seat belts are most effective when seatbacks are in the upright position.
- If a child over 13 must be seated in the front seat, he/she must be properly belted and the seat should be moved as far back as possible.
- Never wear the shoulder belt under your arm or behind your back. An improperly positioned shoulder belt can cause serious injuries in a crash. The shoulder belt should be positioned midway over your shoulder across your collarbone.
- Never wear a seat belt over fragile objects. If there is a sudden stop or impact, the seat belt can damage it.
- Avoid wearing twisted seat belts. A twisted belt can't do its job well. In a collision, it could even cut into you. Be sure the belt webbing is straight and not twisted.
- Be careful not to damage the belt webbing or hardware. If the belt webbing or hardware is damaged, replace it.

WARNING

Seat belts are designed to bear upon the bony structure of the body, and should be worn low across the front of the pelvis or the pelvis, chest and shoulders, as applicable; wearing the lap section of the 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 have been designed.

A slack belt will greatly reduce the protection afforded to the wearer.

Care should be taken to avoid contamination of the webbing with polishes, oils and chemicals, and particularly battery acid. Cleaning may safely be carried out using mild soap and water. The belt should be replaced if webbing becomes frayed, contaminated or damaged. It is essential to replace the entire assembly after it has been worn in a severe impact even if damage to the assembly is not obvious. Belts should not be worn with straps twisted. Each belt assembly must only be used by one occupant; it is dangerous to put a belt around a child being carried on the occupant's lap.

WARNING

- No modifications or additions should be made by the user which will either prevent the seat belt adjusting devices from operating to remove slack, or prevent the seat belt assembly from being adjusted to remove slack.
- When you fasten the seat belt, be careful not to latch the seat belt in buckles of other seat. It's very dangerous and you may not be protected by the seat belt properly.
- Do not unfasten the seat belt and do not fasten and unfasten the seat belt repeatedly whilst driving. This could result in loss of control, and an accident causing death, serious injury, or property damage.
- When fastening the seat belt, make sure that the seat belt does not pass

over objects that are hard or can break easily.

- Make sure there is nothing in the buckle. The seat belt may not be fastened securely.

Driver's seat belt warning (if equipped)



As a reminder to the driver, the seat belt warning light will illuminate for approximately 6 seconds each time you turn the ignition switch or the ENGINE START/STOP button is in ON regardless of belt fastening and warning chime will sound for approximately 6 seconds each time you turn the ignition switch or the ENGINE START/STOP button is in ON when the belt is unfastened.

If a driver continue not to fasten the seat belt and drive below 20km/h, the warning light will stay illuminated.

If a driver continue not to fasten the seat belt whilst driving over 20km/h, the seat belt warning chime will sound for approximately 100 seconds and the corresponding warning light will blink.

If a driver unfasten the seat belt whilst driving below 20km/h, the warning light will stay illuminated.

If a driver unfasten the seat belt whilst driving over 20km/h, the seat belt warning chime will sound for approximately 100 seconds and the corresponding warning light will blink.

Front passenger's seat belt warning

As a reminder to the front passenger, the front passenger's seat belt warning lights will illuminate for approximately 6 seconds each time you turn the ignition switch or the ENGINE START/STOP button in ON regardless of belt fastening.

If the front passenger continue not to fasten the seat belt and drive below 20km/h, the warning light will stay illuminated.

If the front passenger continue not to fasten the seat belt whilst driving over 20km/h, the seat belt warning chime will sound for approximately 100 seconds and the corresponding warning light will blink.

If the front passenger unfasten the seat belt whilst driving below 20km/h, the warning light will stay illuminated.

If the front passenger unfasten the seat belt whilst driving over 20km/h, the seat belt warning chime will sound for approximately 100 seconds and the corresponding warning light will blink.

Lap/shoulder belt

To fasten your seat belt:



1. Grasp the buckle and tongue plate.

2. Slowly pull the lap/shoulder belt out from the retractor.
3. Insert the tongue plate (1) into the open end of the buckle (2) until an audible "click" is heard, indicating the belt is locked in the buckle.
4. Position the lap portion of the belt across your lap as **LOW ON THE HIPS** as possible to reduce the risk of sliding under it during an accident. Adjust the belt to a **SNUG FIT** by pulling up on the shoulder portion of the safety belt. The belt retractor is designed to take up excess webbing automatically and to maintain tension on the belt. For your safety, do not put any excess slack into the safety belt at any location.



* NOTICE

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

⚠ WARNING

You should place the lap belt portion as low as possible and snugly across your hips, not on your waist. If the lap belt is located too high on your waist, it may increase the chance of injury in the

event of a collision. Both arms should not be under or over the belt. Rather, one should be over and the other under, as shown in the illustration.

Never wear the seat belt under the arm near the door.

To release the seat belt:



The seat belt is released by pressing the release button in the locking buckle. When it is released, the belt should automatically draw back into the retractor. If this does not happen, check the belt to be sure it is not twisted, then try again.

⚠ WARNING

- The seatbacks should always remain in a comfortable, upright position whilst the vehicle is in motion. The safety belt system will provide the most protection with the seatbacks in an upright position.
- Never wear the shoulder portion of the safety belt under the outside arm or behind the back.
- Never wear the shoulder portion of the safety belt across the neck or face.
- Wear the lap portion of the safety belt as low on the hips as possible. Be sure the lap belt fits snugly around the

hips. Never wear the lap belt over your waist.

- Never drive or ride with a twisted or jammed safety belt. If you cannot untwist or unjam the safety belt, Kia recommends to contact an authorised Kia dealer/service partner.
- Never use a single belt to restrain more than one person at a time.

Failure to follow these warnings will increase the risk and severity of injury in an accident.

Lap belt (if equipped)

To fasten your seat belt:

1. Grasp the tongue plate end and pull it low over the abdomen.
2. Insert the tongue plate (1) into the open end of the buckle (2) until an audible "click" is heard, indicating the latch is locked. Make sure the belt is not twisted.



3. Grasp the free portion of the belt webbing and pull until the belt is snug over the hips and lower abdomen. If it becomes necessary to lengthen or shorten the belt, hold the latch plate tongue at right angles to the webbing and pull.



4. Make sure that the belt is placed as LOW ON THE HIPS as possible.



To release the seat belt:



Press the release button (1) on buckle.

⚠ WARNING**Lap belt**

Be sure the lap belt is positioned snugly around the hips, and not on the waist. Failure to position the lap belt snugly around the hips will increase the chance and severity of injury in the event of a collision.

Seat belt precautions**⚠ WARNING**

- All occupants of the vehicle must wear their seat belts at all times. Seat belts and child restraints reduce the risk of serious or fatal injuries for all occupants in the event of a collision or sudden stop. Without a seat belt, occupants could be shifted too close to a deploying air bag, strike the interior structure or be thrown from the vehicle. Properly worn seat belts greatly reduce these hazards.
Always follow the precautions about seat belts, air bags and occupant seating contained in this manual.
- Never wear a seat belt over fragile objects. If there is a sudden stop or impact, the seat belt can damage it.

Infant or small child

To increase their safety, infants and young children should always be restrained by a restraint system approved for their age and size.

Never allow a child to stand or kneel on the seat of a moving vehicle. Never allow a safety belt to be placed around both a child and an adult or around two children at the same time.

It is best for children to be seated in the rear seat.

⚠ WARNING

Every person in your vehicle needs to be properly restrained at all times, including infants and children. Never hold a child in your arms or lap when riding in a vehicle. The violent forces created during a crash will tear the child from your arms and throw the child against the interior. Always use a child restraint appropriate for your child's height and weight.

*** NOTICE**

Small children are best protected from injury in an accident when properly restrained in the seat by a child restraint system that meets the requirements of the Safety Standards of your country. Before buying any child restraint system, make sure that it has a label certifying that it meets Safety Standards of your country. The restraint must be appropriate for your child's height and weight. Check the label on the child restraint for this information. Refer to "Child restraint system (CRS)" on page 3-14.

Larger children

As children grow, they may need to use new child-restraint systems, including larger child seats or booster seats, which are appropriate for their increased size.

A child who has outgrown available child-restraint systems should use the belts provided in the vehicle. When seated in the rear outboard seats, the child should be restrained by the lap/shoulder belt.

If the shoulder belt portion slightly touches the child's neck or face, try plac-

ing the child closer to the centre of the vehicle. If the shoulder belt still touches their face or neck they may need to be returned to a child restraint system. In addition, aftermarket devices are available from independent manufacturers which help pull the shoulder belt down and away from the child's face or neck.

WARNING

Shoulder belts on small children

- Never allow a shoulder belt to be in contact with a child's neck or face whilst the vehicle is in motion.
- If seat belts are not properly worn and adjusted on 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 securely as possible on the hips, not across the abdomen. For specific recommendations, consult a physician.

WARNING

Pregnant women

Pregnant women must never place the lap portion of the safety belt over the area of the abdomen where the fetus is located or above the abdomen where the belt could crush the fetus during an impact.

Injured person

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

One person per belt

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

Do not lie down

To reduce the chance of injuries in the event of an accident and to achieve maximum effectiveness of the restraint system, all passengers should be sitting up and the front seats should be in an upright position when the vehicle is moving.

A seat belt cannot provide proper protection if the front seats are in a reclined position.

WARNING

Riding with a reclined seatback increases your chance of serious or fatal injuries in the event of a collision or sudden stop. The protection of your restraint system (seat belts and air bags) is greatly reduced by reclining your seat. Seat belts must be secured against your hips and chest to work properly. The more the seatback is reclined, the greater the chance an occupant's hips will slide under the lap belt causing serious internal injuries. Also, the shoulder belt may strike the occupant's neck. Drivers and passengers should always sit well back in their seats, properly belted, and with the seatbacks upright.

Care of seat belts

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

WARNING

Seatbelts can become hot in a vehicle that has been closed up in sunny weather. They could burn infants and children.

Periodic inspection

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

Keep belts clean and dry

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

When to replace seat belts

Entire in-use seat belt assembly or assemblies should be replaced if the vehicle has been involved in an accident. This should be done even if no damage is visible. In this case, have the system replaced by a professional workshop. Kia recommends to consult an authorised Kia dealer/service partner.

Child restraint system (CRS)

WARNING

Always properly restrain children in the vehicle. If the Passenger's air bag is installed, never install the Child Restraint System on the outboard front seat.

Children under age 13 must always be properly restrained to minimise the risk of injury in an accident, sudden stop or sudden manoeuvre.

Most countries have regulations which require children to travel in approved Child Restraint Systems.

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

Child Restraint Systems must be properly installed in the vehicle seat. Always use a commercially available Child Restraint System that meets the requirements of your country.

Child Restraint System (CRS)

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

WARNING

- Always follow the Child Restraint System manufacturer's instructions for installation and use.

- Always properly restrain your child in the Child Restraint System.
- Do not use an infant carrier or a child safety seat that “hooks” over a seat-back, it may not provide adequate protection in an accident.
- After an accident, have the system checked by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

Selecting a Child Restraint System (CRS)

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

- Make sure the Child Restraint System has a label certifying that it meets applicable Safety Standards of your country.
- A Child Restraint System may only be installed if it was approved in accordance with the requirements of ECE-R44, ECE-R129 or relevant regulation.
- Select a Child Restraint System based on your child’s height and weight. The required label or the instructions for use typically provide this information.
- Select a Child Restraint System that fits the vehicle seating position where it will be used.

For the suitability of Child Restraint Systems on the vehicle's seating positions, please refer to "Child seat restraint suitability for seat position using the seat belt-For Europe" on page 3-17.

- Read and comply with the warnings and instructions for installation and use provided with the Child Restraint System.

Installation on the front seats

⚠ WARNING

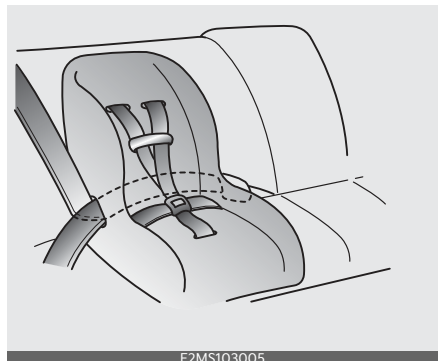
- Before installing the child restraint system, read the instructions supplied by the child restraint system manufacturer.
- Failure to observe this manual instructions regarding child restraint system and the instructions provided with the child restraint system could increase the chance and/or severity of injury in an accident.
- If the child restraint seat is not anchored properly, the risk of a child being seriously injured or killed in a collision greatly increases.

Installing a Child Restraint System with a lap/shoulder belt

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

1. Place the Child Restraint System on a front seat and route the lap/ shoulder belt around or through the Child Restraint System, following the Child Restraint System manufacturer's instructions.

Make sure the seat belt webbing is not twisted.



2. Fasten the lap/shoulder belt latch into the buckle. Listen for the distinct “click” sound. Position the release button so that it is easy to access in case of an emergency.



the Child Restraint System and allow the seat belt to retract fully.

3. Remove as much slack from the belt as possible by pushing down on the Child Restraint System whilst feeding the shoulder belt back into the retractor.



4. Push and pull on the Child Restraint System to confirm that the seat belt is holding it firmly in place.

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

To remove the Child Restraint System, press the release button on the buckle and then pull the lap/shoulder belt out of

Child seat restraint suitability for seat position using the seat belt-For Europe

Use child safety seats that have been officially approved and are appropriate for your children. When using the child safety seats, refer to the following table.

Mass Group	Seating Position	
	Front Passenger	Front Centre
0 : up to 10kg	X	UF*
0+ : up to 13kg	X	UF*
I : 9 to 18kg	X	UF*
II : 15 to 25kg	UF	UF*
III : 22 to 36kg	UF	UF*

UF = Suitable for forward-facing "universal" category restraints approved for use in this mass group

UF* = Suitable for forward-facing "universal" category Child Restraint Systems with Seatback angle should be at upright position

X = Seat position not suitable for children in this mass group.

Installing a child restraint system by lap belt (on the centre front seat) (if equipped-Except Europe)

To install a child restraint system on the centre front seats, do the following:

1. Place the child restraint system on the centre front seat.
2. Extend the latch plate tongue of the lap belt.
3. Route the lap belt through the restraint according to the seat manufacturer's instructions.
4. Buckle the seat belt and adjust the lap belt for a snug hold on the child restraint by pulling on the loose end of the belt. After installation of the child restraint system, try to move it in all directions to be sure the child restraint system is securely installed.

Air bag - supplemental restraint system (if equipped)



OPU0321148R

* The actual air bag in the vehicle may differ from the illustration.

1. Driver's air bag*

2. Passenger's air bag*

* : if equipped

⚠ WARNING

- Even in vehicles with air bag, you must always wear the safety belts provided in order to minimise the risk and severity of injury in the event of a collision or roll-over.
- SRS and pretensioners contain explosive chemicals.
If scraping a vehicle without removing SRS and pretensioners from a vehicle, it may cause fire. Before scraping a vehicle, contact a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.
- Keep the SRS parts and wirings away from water or any liquid. If the SRS components are inoperative due to exposure to water or liquids, it may cause fire or severe injury.

How does the air bag system operate

- Air bag is activated (able to inflate if necessary) only when the ignition switch is turned to the ON position.
- Air bag inflates instantly in the event of serious frontal in order to help protect the occupants from serious physical injury.

- There is no single speed at which the air bag will inflate.

Generally, air bag is designed to inflate based upon the severity of a collision and its direction. These two factors determine whether the sensors produce an electronic deployment/ inflation signal.

- Air bag deployment depends on a number of factors including vehicle speed, angles of impact and the density and stiffness of the vehicles or objects which your vehicle hits in the collision. The determining factors are not limited to those mentioned above.

- The front air bag will completely inflate and deflate in an instant.

It is virtually impossible for you to see the air bag inflates during an accident. It is much more likely that you will simply see the deflated air bag hanging out of their storage compartments after the collision.

- In order to help provide protection in a severe collision, the air bag must inflate rapidly. The speed of air bag inflation is a consequence of extremely short time in which a collision occurs and the need to get the air bag between the occupant and the vehicle structures before the occupant impacts those structures. This speed of inflation reduces the risk of serious or lifethreatening injuries in a

severe collision and is thus a necessary part of air bag design.

However, air bag inflation can also cause injuries which can include facial abrasions, bruises and broken bones because the inflation speed also causes the air bag to expand with a great deal of force.

- **There are even circumstances under which contact with the steering wheel air bag can cause fatal injuries, especially if the occupant is positioned excessively close to the steering wheel.**

WARNING

- To avoid severe personal injury or death caused by deploying air bag in a collision, the driver should sit as far back from the steering wheel air bag as possible (at least 250 mm (10 inches) away).
- Air bags inflate instantly in the event of a collision, and passengers may be injured by the air bag expansion force if they are not in a proper position.
- Air bag inflation may cause injuries including facial or bodily abrasions, injuries from broken glasses or burns.

Noise and smoke

When the air bag inflates, they make a loud noise and they leave smoke and powder in the air inside of the vehicle. This is normal and is a result of the ignition of the air bag inflator. After the air bag inflates, you may feel substantial discomfort in breathing due to the contact of your chest with both the seat belt and the air bag, as well as from breathing the smoke and powder. **Open your doors and/or windows as soon as possible after impact in order to reduce**

discomfort and prevent prolonged exposure to the smoke and powder.

Though smoke and powder are non-toxic, it may cause irritation to the skin (eyes, nose and throat, etc.). If this is the case, wash and rinse with cold water immediately and consult the doctor if the symptom persists.

⚠ WARNING

When the air bags deploy, the air bag related parts in the steering wheel, instrument panel, front seats and/or in both sides of the roof rails above the front and rear doors are very hot. To prevent injury, do not touch the air bag storage area's internal components immediately after an air bag has inflated.

Do not install or place any accessories near air bag deployment areas, such as the instrument panel, windows, pillars, and roof rails.

Front passenger's air bag warning WARNING label for child restraint system

Type A



Type B



⚠ WARNING

Never place a rear facing child restraint in the front passenger seat, unless the passenger-side air bag is deactivated. An inflating passenger-side air bag could impact the rear-facing child restraint and kill the child.

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

⚠ WARNING

- Extreme Hazard! Do not use a rearward facing child restraint on a seat protected by an air bag in front of it!
- NEVER use a rearward facing child restraint on a seat protected by an ACTIVE AIR BAG in front of it. DEATH or SERIOUS INJURY to the CHILD can occur.

Air bag warning light



The purpose of the air bag warning light in your instrument panel is to alert you of a potential problem with your air bag - Supplemental Restraint System (SRS). When the ignition switch is turned ON, the warning light should illuminate for approximately 6 seconds, then go off. Have the system checked if:

- The light does not turn on briefly when you turn the ignition ON.
- The light stays on after illuminating for approximately 6 seconds.
- The light comes on whilst the vehicle is in motion.

SRS components and functions

The SRS consists of the following components:

1. Driver's front air bag module*
2. Passenger's front air bag module*
3. Air bag warning light*
4. SRS control module (SRSCM)*
5. Front impact sensors*

*: if equipped

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

The SRS air bag warning light on the instrument panel will illuminate for about 6 seconds after the ignition switch is turned to the ON position, after which the SRS air bag warning light should go out.

⚠ WARNING

If any of the following conditions occurs, this indicates a malfunction of the SRS. In this case, have the system inspected by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

- The light does not turn on briefly when you turn the ignition ON.
- The light stays on after illuminating for approximately 6 seconds.
- The light comes on whilst the vehicle is in motion.
- The light blinks when the ignition switch is in ON position.

Driver's front air bag (1)



The front air bag modules are located in the centre of the steering wheel, in the front passenger's panel above the glove box and/or in the driver's side knee bolster. When the SRSCM detects a sufficiently severe impact to the front of the vehicle, it will automatically deploy the front air bags.

Driver's front air bag (2)



OYB030091R

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

Driver's front air bag (3)



OYB030092R

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

Passenger's front air bag



OYB030093R

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

⚠ WARNING

- Do not install or place any accessories (drink holder, sticker, etc.) on the front passenger's panel above the glove box in a vehicle with a passenger's air bag. Such objects may become dangerous projectiles and cause injury if the passenger's air bag inflates.
- When installing a container of liquid air freshener inside the vehicle, do not place it near the instrument cluster nor on the instrument panel surface. It may become a dangerous projectile and cause injury if the passenger's air bag inflates.

⚠ WARNING

- If an air bag deploys, there may be a loud noise followed by a fine dust released in the vehicle. These conditions are normal and are not hazardous - the air bags are packed in this fine powder. The dust generated during air bag deployment may cause

skin or eye irritation as well as aggravate asthma for some persons. Always wash all exposed skin areas thoroughly with cold water and mild soap after an accident in which the air bags were deployed.

- The SRS can function only when the ignition key is in the ON position. If the SRS air bag warning light does not illuminate, or continuously remains on after illuminating for about 6 seconds when the ignition key is turned to the ON position, or after the engine is started, comes on whilst driving, the SRS is not working properly. In this case, have the system inspected by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.
- Before you replace a fuse or disconnect 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 Passenger's front air bag (if equipped)

Driver's air bag



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

The indications of the system's presence are the letters "AIR BAG" embossed on the air bag pad cover in the steering wheel.

The SRS consists of air bag installed under the pad covers in the centre of the steering wheel.

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

Passenger's front air bag



The SRS consists of air bags installed under the pad covers in the centre of the steering wheel and the passenger's front panel above the glove box.

The purpose of the SRS is to provide the vehicle's driver and/or the front passenger with additional protection than that offered by the seat belt system alone in case of a frontal impact of sufficient severity. The SRS uses sensors to gather information about the driver's seat position, the driver's and front passenger's seat belt usage and impact severity.

WARNING

Always use seat belts and child restraints - every trip, every time, every-one! 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 can be severely injured when the air bag inflates. Always follow the precautions about seat belts, air bags and occupant safety contained in this manual.

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

- Front air bags can injure occupants improperly positioned in the front seats.
- Move your seat as far back as practical from the front air bags, whilst 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 can be severely injured by inflating air bags.
- Never lean against the door or centre console - always sit in an upright position.
- No objects should be placed over or near the air bag modules on the steering wheel, instrument panel or the front passenger's panel above the glove box, because any such object could cause harm if the vehicle is in a crash severe enough to cause the air bags to deploy.
- Do not tamper with or disconnect SRS wiring or other components of the SRS system. Doing so could result in injury, due to accidental deployment of the air bags or by rendering the SRS inoperative.
- If the SRS air bag warning light remains illuminated whilst the vehicle is being driven, have the system inspected by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.
- Air bags can only be used once - have the system replaced by a professional workshop.
Kia recommends to visit an authorised Kia dealer/service partner.
- 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 only deploy once. Seat belts must be worn at all times.

- Front air bags are not intended to deploy in side-impact, rear-impact or rollover crashes.

In addition, front air bags will not deploy in frontal crashes below the deployment threshold.

- If a child over 13 must be seated in the front seat, he or she must be properly belted and the seat should be moved as far back as possible.
 - For maximum safety protection in all types of crashes, all occupants including the driver should always wear their seat belts whether or not an air bag is also provided at their seating position to minimise the risk of severe injury or death in the event of a crash. Do not sit or lean unnecessarily close to the air bag whilst the vehicle is in motion.
 - Sitting improperly or out of position can result in serious or fatal injury in a crash. All occupants should sit upright with the seat back in an upright position, centred on the seat cushion with their seat belt on, legs comfortably extended and their feet on the floor until the vehicle is parked and the ignition key is removed.
 - The SRS air bag system must deploy very rapidly to provide protection in a crash. If an occupant is out of position because of not wearing a seat belt, the air bag may forcefully contact the occupant causing serious or fatal injuries.
-

Air bag collision sensors



OPU0321165R

1



OPU0321152R

2



OPU0321166R

1. SRS control module (if equipped)
2. Front impact sensor (if equipped)

⚠ WARNING

- Do not hit or allow any objects to impact the locations where air bag or sensors are installed. This may cause unexpected air bag deployment, which could result in serious personal injury or death.
- If the installation location or angle of the sensors is altered in any way, the air bag may deploy when they should not or they may not deploy when they should, causing severe injury or death.

Therefore, do not try to perform maintenance on or around the air bag sensors. Have the system serviced by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

- Problems may arise if the sensor installation angles are changed due to the deformation of the front bumper or body. In this case, have the system serviced by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.
- Your vehicle has been designed to absorb impact and deploy the air bag in certain collisions. Installing after-market bumper guards or replacing a bumper with nongenuine parts may adversely affect your vehicles collision and air bag deployment performance.

Air bag inflation conditions

Front air bag is designed to inflate in a frontal collision depending on the intensity, speed or angles of impact of the front collision.

Air bag non-inflation conditions

- In certain low-speed collisions the air bag may not deploy. The air bag is designed not to deploy in such cases because they may not provide benefits beyond the protection of the seat belts in such collisions.



- Air bag is not designed to inflate in rear collisions, because occupants are moved backward by the force of the impact. In this case, inflated air bag would not be able to provide any additional benefit.



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



- In a slant or angled collision, the force of impact may direct the occupants in a direction where the air bag would not be able to provide any additional benefit, and thus the sensors may not deploy any air bag.



- Just before impact, drivers often brake heavily. Such heavy braking lowers the front portion of the vehicle causing it to "ride" under a vehicle with a higher ground clearance. Air bag may not inflate in this "under-ride" situation because deceleration forces that are detected by sensors may be significantly reduced by such "under-ride" collisions.



- Airbags do not inflate in most rollover accidents.



- Air bag may not inflate if the vehicle collides with objects such as utility poles or trees, where the point of impact is concentrated to one area and the full force of the impact is not delivered to the sensors.



SRS Care

The SRS is virtually maintenance-free and so there are no parts you can safely service by yourself. If the SRS air bag warning light does not illuminate, or continuously remains on, have the system inspected by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

Improper handling of the SRS system may result in serious personal injury.

⚠ WARNING

- Modification to SRS components or wiring, including the addition of any kind of badges to the pad covers or modifications to the body structure, can adversely affect SRS performance and lead to possible injury.
- For cleaning the air bag pad covers, use only a soft, dry cloth or one which has been moistened with plain water. Solvents or cleaners could adversely affect the air bag covers and proper deployment of the system.
- No objects should be placed over or near the air bag modules on the steering wheel, instrument panel, and the front passenger's panel above the glove box, because any such object could cause harm if the vehicle is in a crash severe enough to cause the air bag to inflate.
- If the air bags inflate, have the system replaced by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.
- Do not tamper with or disconnect SRS wiring, or other components of the SRS system. Doing so could result in injury, due to accidental inflation of the air bag or by rendering the SRS inoperative.
- If components of the air bag system must be discarded, or if the vehicle must be scrapped, certain safety precautions must be observed. An authorised Kia dealer knows these precautions and can give you the necessary information. Failure to follow these precautions and procedures could increase the risk of personal injury.
- If your car was flooded and has soaked carpeting or water on flooring,

you shouldn't try to start the engine; in this case, have your vehicle inspected by a professional workshop. Kia recommends to contact an authorised Kia dealer/service partner.

Additional safety precautions

- **Never let passengers ride in the cargo area or on top of a folded-down back seat.** All occupants should sit upright, fully back in their seats with their seat belts on and their feet on the floor.
- **Passengers should not move out of or change seats whilst the vehicle is moving.** A passenger who is not wearing a seat belt during a crash or emergency stop can be thrown against the inside of the vehicle, against other occupants, or out of the vehicle.
- **Each seat belt is designed to restrain one occupant.** If more than one person uses the same seat belt, they could be seriously injured or killed in a collision.
- **Do not use any accessories on seat belts.** Devices claiming to improve occupant comfort or reposition the seat belt can reduce the protection provided by the seat belt and increase the chance of serious injury in a crash.
- **Passengers should not place hard or sharp objects between themselves and the air bags.** Carrying hard or sharp objects on your lap or in your mouth can result in injuries if 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 on and their feet on the floor. If occupants are too close to

the air bag covers, they could be injured if the air bags inflate.

- **Do not attach or place objects on or near the air bag covers.** Any object attached to or placed on the front or side air bag covers could interfere with the proper operation of the air bags.
- **Do not modify the front seats.** Modification of the front seats could interfere with the operation of the supplemental restraint system sensing components or side air bags.
- **Do not place items under the front seats.** Placing items under the front seats could interfere with the operation of the supplemental restraint system sensing components and wiring harnesses.
- **Never hold an infant or child on your lap.** The infant or child could 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 the seat.

WARNING

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

Adding equipment to or modifying your air bag-equipped vehicle

If you modify your vehicle by changing your vehicle's frame, bumper system, front end or side sheet metal or ride height, this may affect the operation of your vehicle's air bag system.

Air bag warning label



Air bag warning labels are attached to alert the passengers of the potential risk of the air bag system.

Note that these government warnings focus on the risk of children. We also want you to be aware of the risks which adults are exposed to that have been described in previous pages.

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Features of your vehicle

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,

Kia recommends to contact an authorised Kia dealer/service partner. Remove the key code tag and store it in a safe place. Also, record the key code number and keep it in a safe place (not in the vehicle).

Key operations

Type A



Type B



Used to start the engine, lock and unlock the doors.

Type B

To unfold the key, press the release button (1) then the key will unfold automatically.

To fold the key, fold the key manually whilst pressing the release button (1).

⚠ CAUTION

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

⚠ WARNING

Ignition key

Leaving children unattended in a vehicle with the ignition key is dangerous even if the key is not in the ignition switch. Children copy adults and they could place the key in the ignition switch. 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.

⚠ WARNING

Kia recommends to use parts for replacement from an authorised Kia dealer/service partner. 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.

Remote keyless entry (if equipped)

Remote keyless entry system operations



Lock (1)

1. Close all doors.
2. Press the lock button.
3. The hazard warning light will blink once to indicate that all doors are locked.

Unlock (2)

1. Press the unlock button.
2. The hazard warning lights will blink twice to indicate that all doors are unlocked.

* NOTICE

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

Transmitter precautions

* NOTICE

The transmitter will not work if any of following occur:

- The ignition key is in ignition switch.
 - You exceed the operating distance limit (about 10 m [30 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 properly, open and close the door with the ignition key. If you have a problem with the transmitter Kia recommends to contact an authorised Kia dealer/service partner.
- 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.

⚠ CAUTION

- 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.
- Keep the transmitter away from electromagnetic materials that blocks

electromagnetic waves to the key surface.

⚠ CAUTION

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.

Battery replacement

Type A



Type B



The 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 centre cover.
2. Using a slim tool, gently pry open the battery cover (for Folding key - Type B).
3. Replace the battery with new one. When replacing the battery, make sure the battery position.
4. Install the battery in the reverse order of removal.

⚠ WARNING

THIS PRODUCT CONTAINS A BUT-TON BATTERY

If swallowed, a lithium button battery can cause severe or fatal injuries within 2 hours.

Keep batteries out of reach of children.

If you think batteries may have been swallowed or placed inside any part of the body, seek immediate medical attention.

For transmitter replacement, Kia recommends to visit an authorised Kia dealer/service partner.

⚠ 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 or replace the battery, Kia recommends to contact an authorised Kia dealer/service partner.

- 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.

⚠ CAUTION

An inappropriately disposed battery can be harmful to the environment and human health. Dispose the battery according to your local law(s) or regulation.

Door locks

Operating door locks from outside the vehicle



- Turn the key toward rear of vehicle to lock (1) and toward front of vehicle to unlock (2).
- Once the doors are unlocked, it may be opened by pulling the door handle.
- When closing the door, push the door by the hand. Make sure that doors are closed securely.



To lock a door without the key, push the inside door lock button (1) to the "Lock" position and close the door (2).

*** NOTICE**

Always remove the ignition key, engage the parking brake, close all windows and

lock all doors when leaving your vehicle unattended.

* 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.

⚠ WARNING

If people must spend a longer time in the vehicle whilst it is very hot or cold outside, there is risk of injuries or danger to life. Do not lock the vehicle from the outside when there are people in it.

⚠ CAUTION

Do not frequently repeat opening and closing of doors, or apply excessive force to a door whilst the door closer is operating.

Operating door locks from inside the vehicle



- To unlock a door, push the door lock button to the "Unlock" position. The red mark (2) on the button will be visible.
- To lock a door, push the door lock button (1) to the "Lock" position. If the door is locked, red part (2) of the knob becomes invisible.
- To open a door, pull the door handle (3).

Central door lock system (if equipped)





OPU0421024R

If you lock (1)/unlock (2) the driver's door or passenger's door (if equipped) with a key or door lock button, front doors will lock/unlock automatically.

⚠ WARNING

Doors

- The doors should always be fully closed and locked whilst 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 down.
- 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

Leaving your vehicle unlocked can invite theft or possible harm to you or others from someone hiding in your vehicle whilst 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.

Rear gate

Opening the rear gate



1. Lift up the rear gate handle, push it inside and pull it toward you.
2. Lower the rear gate slowly with it received on both arms.

WARNING

When the rear combination lamps are hidden, other road users should be warned by means of warning triangle or other devices.



WARNING

- Do not open the rear gate, whilst the vehicle is in motion.

- Fasten rope into the rope hook securely not to loosen the rope whilst the vehicle is in WARNING motion.

Closing the rear gate

Lift the rear gate up and lock the rear gate handle in place.

Make sure the rear gate is properly locked before driving.

Side gate

Opening the side gate

1. With the rear gate opened, pull up the knob to release the support bar down.



2. Remove the side gate handle from the hook after pulling it up.



3. Lower the side gate slowly with it received on both arms.

Closing the side gate

1. Lift the side gate up and lock the side gate handle in place.
2. Push the knob down to lock the side gates.

WARNING

When locking the side gate handle, be careful not to get your fingers into the chink in the handle.

Windows

Manual windows (if equipped)



Use the window crank to open (1) and close (2) each window.

* NOTICE

If you notice buffeting and pulsation (wind shock) with either side window open, you should open the opposite window slightly to reduce the condition.

Power windows (if equipped)

The ignition switch must be in the ON position for power windows to operate. Front doors have a power window switch that controls that door's window.

* NOTICE

To prevent the power window system from the possibility of damage, do not open or close two windows at the same time. This will also ensure the longevity of the fuse.

⚠ CAUTION

- Make sure heads and hands are safely out of the way before closing a window.
- Do not allow children to play with the power windows. Serious injury can

result from unintentional window operation by the child.

- Do not extend face or arms outside through the window opening whilst driving.
- Always double check to make sure all arms, hands and other obstructions are safely out of the way before closing a window.

Window opening and closing

Driver's door



Passenger's door



The driver's door has a master power window switch that controls the front windows in the vehicle. To open or close a window, press down (1) or pull up (1)

the front portion of the corresponding switch.

Power window timer (if equipped)

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 after the ignition key removal.

Bonnet

Opening the bonnet

- 1. Pull the release lever on the lower left side of the instrument panel to unlatch the bonnet. The bonnet should pop open slightly.



⚠ WARNING

Open the bonnet after turning off the engine on a flat surface, shifting the shift lever to the 1st(First) gear or R (Reverse) for Manual Transmission, and setting the parking brake.

- 2. Go to the front of the vehicle, raise the bonnet slightly, pull the secondary latch inside of the bonnet centre and lift the bonnet.



3. Lift the bonnet and hold it open with the support rod by inserting the free end of the rod into the slot.



Closing the bonnet

1. Before closing the bonnet, check the following:
 - All filler caps in the under bonnet area must be correctly installed.
 - Jack must be secured in its retainer to prevent it from rattling.
2. Secure the support rod in its clip.
3. Lower the bonnet to about 30 cm (12 inches) height and then let it drop to properly lock in place.
Make sure the bonnet is properly locked before driving.



4. Check that the bonnet has engaged properly. If the bonnet can be raised

slightly, it is not properly engaged. Open it again and close it with a little more force.

⚠ WARNING

- Before closing the bonnet, ensure that all obstructions are removed from the bonnet opening. Closing the bonnet with an obstruction present in the bonnet 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 heatinduced fire.

⚠ WARNING

- Always double check to be sure that the bonnet is firmly latched before driving away. Driving with the bonnet opened may cause a total loss of visibility, which might result in an accident.
- Do not press excessively or step on the bonnet. This can cause the bonnet to fall and result in serious injury.

Fuel filler



1. Stop the engine.
2. Insert the key (1) and turn the key counterclockwise.
3. To remove the cap, turn the fuel tank cap counterclockwise.
4. Refuel as needed.
5. To install the cap, turn it clockwise until it “clicks”. This indicates that the cap is securely tightened.
6. Insert the key (1) and turn the key clockwise.

⚠ WARNING

Refuelling

- If pressurized fuel sprays out, it can cause serious injuries. 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.
- Fuel vapour is very hazardous and can explode. When refuelling, always stop the engine. Never allow sparks or open flames near the filler neck. Always put out cigarettes and other smoking materials before refuelling.

⚠ WARNING

Before refuelling, be sure to check what type of fuel is used for your vehicle. If you put diesel fuel into a petrol-powered vehicle or petrol into a diesel-powered vehicle, it may affect the fuel system and cause serious damage to the vehicle.

*** NOTICE**

- Make sure to refuel with diesel fuel only for the diesel engine vehicles.
- Check to make sure the fuel filler cap is securely closed after refuelling.
- If the fuel filler cap requires replacement, use only a genuine Kia cap or the equivalent specified for your vehicle. An incorrect fuel filler cap can result in a serious malfunction of the fuel system or emission control system. Have the fuel filter replaced by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.
- Do not spill fuel on the exterior surfaces of the vehicle. Any type of fuel spilled on painted surfaces may damage the paint.

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 system checked by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

* NOTICE

- 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.
- 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 °C/14 °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 steering (if equipped)

A tilt steering wheel allows you to adjust the steering wheel before you drive. You can also raise it to the highest level to give your legs more room when you exit and enter the vehicle.

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

⚠ WARNING

- Never adjust the angle of steering wheel whilst 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.



1. Pull the lever upward and hold it to unlock.
2. Raise or lower the steering wheel to the desired position (2).
3. After adjust, release the lever. Be sure to adjust the steering wheel 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.

CAUTION

- 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.
- 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

Adjust the rearview mirror so that the centre view through the rear window is seen. Make this adjustment before you start driving.

WARNING

Rear visibility

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

WARNING

Do not adjust the rearview mirror whilst 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 don't 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 whilst the day/night lever (3) is in the day position.

Pull the day/night lever (3) toward you to reduce the glare from the headlights of the vehicles behind you during night driving.

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

* (1) : Day, (2) : Night

Outside rearview mirror

Be sure to adjust mirror angles before driving.

Your vehicle is equipped with both left-hand and right-hand outside rearview mirrors. The mirror heads can be folded back to prevent damage during an automatic car wash or when passing in a narrow street.

⚠ WARNING

Rearview mirrors

- The outside rearview mirror is 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 the 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 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 whilst the vehicle is moving. This could result in loss of control, and an accident which could cause death, serious injury or property damage.

Manual type



To adjust an outside mirror, move the mirror.

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, 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.

Folding the outside rearview mirror

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

Instrument cluster



1. Tachometer
2. Speedometer
3. Engine coolant temperature gauge
4. Fuel gauge
5. Warning and indicator lights
6. LCD display
7. MODE button
8. Clock knob

* The actual cluster in the vehicle may differ from the illustration. For more details, refer to "Gauges" on page 4-21.

Gauges

Speedometer



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

Tachometer



The tachometer indicates the approximate number of engine revolutions per minute (rpm).
Use the tachometer to select the correct shift points and to prevent lugging and/or over-revving the engine.

⚠ CAUTION

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

Engine Coolant Temperature Gauge



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

⚠ CAUTION

If the gauge pointer moves beyond the normal range area toward the "H" position, it indicates overheating that may damage the engine.
Do not continue driving with an overheated engine. If your vehicle overheats, refer to "If the engine overheats" on page 7-5.

⚠ WARNING

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

Fuel Gauge



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

* NOTICE

- The fuel tank capacity is given in "Capacities" on page 9-6.
- 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 "E (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.

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 ~ 999999 km or miles.

Trip modes (Trip computer)

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

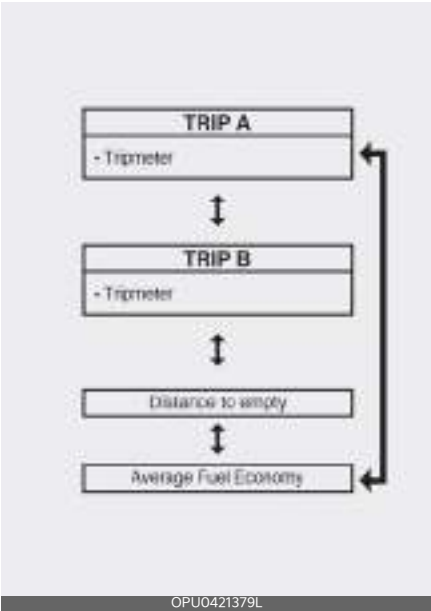
* NOTICE

Some driving information stored in the trip computer resets if the battery is disconnected.



You can choose the odometer, tripmeter A, tripmeter B, Distance to empty and Average fuel economy by pressing the tripmeter MODE button.

Trip modes



To change the trip mode, push the MODE button in the trip computer mode.

Tripmeter



TRIP A: Tripmeter A

TRIP B: Tripmeter B

The tripmeter indicates the distance of individual trips selected by the driver. Tripmeter A and B can be reset to 0 by pressing the MODE button for 1 second or more, and then releasing.

Distance To Empty



- The distance to empty is the estimated distance the vehicle can be driven with the remaining fuel.
 - Distance range: 1~9,999 km or 1~9,999 mi.
- If the estimated distance is below 1 km (1 mi.), the trip computer will display "---" as distance to empty.

⚠ CAUTION

- 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 litres (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.

Manual reset

To clear the average fuel economy manually, press the MODE button (reset) on the cluster for more than 1 second when the average fuel economy is displayed.

Automatic reset

To make the average fuel economy be reset automatically after refuelling more than 6 litres and driving over 1.5km/h, the vehicle will reset to default automatically.

Average Fuel Economy



- 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 L/100km or MPG
- The average fuel economy can be reset both manually and automatically.

Warning and indicator lights

Warning lights

* NOTICE

Warning lights

Make sure that all warning lights are OFF after starting the engine. If any light is still ON, this indicates a situation that needs attention.

Air bag Warning Light (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, have the vehicle inspected by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

Seat Belt Warning Light

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

* For more details, refer to "Seat belts" on page 3-8.

Parking Brake & Brake Fluid Warning Light

This warning light illuminates:

- Once you set the ignition switch to the ON position.

- It illuminates for approximately 3 seconds
- It remains on if the parking brake is applied.
- When the parking brake is applied.
- When the brake fluid level in the reservoir is low.
 - If the warning light illuminates with the parking brake released, it indicates the brake fluid level in reservoir is low.

If the brake fluid level in the reservoir is low:

1. Drive carefully to the nearest safe location and stop your vehicle.
2. With the engine stopped, check the brake fluid level immediately and add fluid as required (For more details, refer to "Brake/clutch fluid" on page 8-24.). Then check all brake components for fluid leaks. If any leak on the brake system is still found, the warning light remains on, or the brakes do not operate properly, do not drive the vehicle. In this case, have the vehicle towed to a professional workshop and inspected.

Kia recommends to visit an authorised Kia dealer/service partner.

WARNING

Parking Brake & Brake Fluid Warning Light

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

In this case, have the vehicle inspected by a professional workshop. Kia recom-

mends to visit an authorised Kia dealer/service partner.

Malfunction Indicator Lamp

(MIL) 

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 the emission control system.

In this case, have the vehicle inspected by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

⚠ CAUTION

- 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.
- If the Emission Control System Malfunction Indicator Light () begins to flash ON and OFF, potential catalytic converter damage is possible which could result in loss of engine power. In this case, have the vehicle inspected by a professional workshop as soon as possible. Kia recommends to visit an authorised Kia dealer/service partner.

⚠ CAUTION

Diesel engine (if equipped with DPF)

When the malfunction indicator light is blinks, it may stop blinking after driving

the vehicle at more than 60km/h (37 mph) or at more than second gear with 1500 ~ 2500 engine rpm for a certain time (for about 25 minutes).

If the malfunction indicator light continues to be blinked in spite of the procedure, have the system checked by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

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

⚠ CAUTION

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.

In this case, have the vehicle inspected by a professional workshop as soon as possible. Kia recommends to visit an authorised Kia dealer/service partner.

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, have the vehicle inspected by a professional workshop as soon as possible.

Kia recommends to visit an authorised Kia dealer/service partner.

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.
- Drive carefully to the nearest safe location and stop your vehicle.
- Turn the engine off and check the engine oil level (For more details, refer to "Engine oil (for (Diesel) 2.5 VGT)" on page 8-18 or "Engine oil (for (Diesel) 2.7 VGT)" on page 8-20.). If the level is low, add oil as required.
- If the warning light remains on after adding oil or if oil is not available, have the vehicle inspected by a professional workshop as soon as possible. Kia recommends to visit an authorised Kia dealer/service partner.

Continued driving with the warning light on may cause engine failure.

* NOTICE

When engine oil pressure decreases due to insufficient engine oil, etc., the Engine Oil Pressure warning light will illuminate.

Low Fuel Level Warning Light

This warning light illuminates:

When the fuel tank is nearly empty.

If the fuel tank is nearly empty:

Add fuel as soon as possible.

⚠ CAUTION

Low Fuel Level

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

Fuel Filter 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 water has accumulated inside the fuel filter. In this case, remove the water from the fuel filter.
- * For more details, refer to "Fuel filter (for diesel)" on page 8-29.

⚠ CAUTION**Fuel Filter Warning Light**

- When the Fuel Filter Warning Light illuminates, engine power (vehicle speed & idle speed) may decrease.
- If you keep driving with the warning light on, engine parts (injector, common rail, high pressure fuel pump) may be damaged. If this occurs, have the vehicle inspected by a professional workshop as soon as possible. Kia recommends to visit an authorised Kia dealer/service partner.

Exhaust system (DPF) Warning Light (if equipped)**This warning light illuminates:**

- When there is a malfunction with Diesel Particulate Filter (DPF) system.
- When this warning light illuminates, it may turn off after driving the vehicle:
 - at more than 60km/h (37 mph), or
 - at more than 2nd gear with 1500 ~ 2500 engine rpm for a certain time (for about 25 minutes).

If this warning light blinks in spite of the procedure (at this time the LCD warning message will be displayed), have the DPF system checked by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

⚠ CAUTION**Diesel Engine with DPF (if equipped)**

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

Door Ajar Warning Light **This warning light illuminates:**

When a door is not closed securely.

Safety belt warning chime

If the driver's seat belt is not fastened when the ignition key is turned "ON" or if it is disconnected after the key is ON, the safety belt warning chime will sound for approximately 6 seconds.

Key reminder warning chime (if equipped)

If the driver's door is opened and the ignition key is left in the ignition switch in the LOCK or ACC position, the key reminder warning chime will sound. This is to prevent you from locking your keys in the vehicle.

Parking brake warning sound

If the vehicle driven at 10km/h (6mph) for more 2~3 than seconds, the warning chime will sound continuously when the parking brake engaged.

Indicator Lights**Turn Signal Indicator Light ****This indicator light blinks:**

- When you switch on the turn signal light on.

If any of the following occurs, there may a malfunction with the turn signal system. In this case, have the vehicle inspected by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

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

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.

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.

Glow Indicator Light

This indicator light illuminates:

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

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

In this case, have the vehicle inspected by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

* NOTICE

Engine Preheating

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

Reverse Parking Distance Warning (PDW) (if equipped)



Reverse Parking Distance Warning assists the driver during backward movement of the vehicle by chiming if any object is sensed within a distance of 120 cm (47 inches) 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 rear ultrasonic sensors (1) are limited. Whenever backing-up, pay as much attention to what is behind you as you would in a vehicle without a Reverse Parking Distance Warning system.

⚠ WARNING

Reverse Parking Distance Warning is a supplementary function only. The operation of Reverse Parking Distance Warning can be affected by several factors (including environmental conditions). It is the responsibility of the driver to always check the area behind the vehicle before backing up.

Operation of Reverse Parking Distance Warning

Operating condition

- This Reverse Parking Distance Warning will activate when backing up with the ignition key ON. If the vehicle is moving at a speed over 5 km/h (3 mph), Reverse Parking Distance Warning may not be activated correctly.
- The sensing distance whilst Reverse Parking Distance Warning is in operation is approximately 120 cm (47 inches).
- 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 80 cm to 120 cm (31 inches to 47 inches) from the rear bumper : Buzzer beeps intermittently
- When an object is 40 cm to 80 cm (16 inches to 31 inches) from the rear bumper : Buzzer beeps more frequently
- When an object is within 40 cm (16 inches) of the rear bumper : Buzzer sounds continuously.

Non-operational conditions of Reverse Parking Distance Warning

Reverse Parking Distance Warning 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. Overloading in the cargo or luggage offset to one side.
10. Sensor protector is damaged.
11. Driving in areas generating excessive noise and ultrasonic waves such as mechanical devices or electronic tools.
12. Luggage in the cargo is interfered with the sensor.

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 100 cm (39 inches) and narrower than 14 cm (6 inches).

The sensor can be damaged if any of following occur:

1. Sensor is covered with foreign matter such as animal waste or chemicals.
2. Rear gate is opened suddenly without holding rear gate.

Reverse Parking Distance Warning precautions

- Reverse Parking Distance Warning may not sound consistently depending on the speed and shapes of the objects detected.
- Reverse Parking Distance Warning 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 40 cm (15 inches) 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**

Reverse Parking Distance Warning 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 Reverse Parking Distance Warning regarding the 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 Reverse Parking Distance Warning. If this occurs, have the system checked by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

WARNING

Your new vehicle warranty does not cover any accidents or damage to the vehicle or injuries to its occupants due to a Reverse Parking Distance Warning malfunction. Always drive safely and cautiously.

Lighting

Battery saver function (if equipped)

The purpose of this feature is to prevent the battery from being discharged if the lights are left in the ON position.

The system automatically shuts off the parking lights after the engine is off and the driver's door is opened.

However, the position lamps stay ON even when the driver-side door is opened if the headlamp switch is turned to the position lamp () after the engine is turned off.

If necessary, to keep the lamps on turn the position lamps OFF and ON again using the headlamp switch on the steering column after the engine is turned off.

CAUTION

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

Lighting control

Type A



Type B



Taillight position (E003)

Type A



Type B



The light switch has a Headlight and a Taillight 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. Taillight position
3. Headlight position

When the light switch is in the taillight position (1st position), the tail, position, license and instrument panel lights are on.

Headlight position (D)

Type A



Type B



When the light switch is in the headlight position (2nd position), the head, tail, position, license and instrument panel lights are on.

* NOTICE

The ignition must be in the ON position for headlights to operate.

High beam operation

Type A



Type B



To turn on the high beam headlamp, 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 whilst 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.

Type A



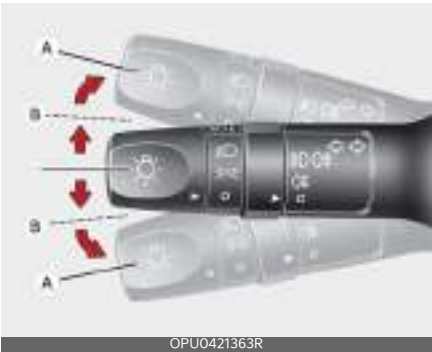
Type B



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

Type A



Type B



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.

One Touch Triple Turn Signal (if equipped)

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.

* 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)

Type A



Type B



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 the fog light switch (1) is turned on after the parklight is turned on.

To turn off the fog lights, turn the fog light switch (1) to the OFF position.

⚠ 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)

Type A



Type B



In order to turn on the Rear fog light, it is possible when the headlamp is ON or at the Front fog light and parking light are ON condition, turning the Rear fog light switch(1) to ON position.

To turn off the Rear fog light :

- Turn the headlamp switch “OFF” position.
- Turn the Rear fog light switch to the Front fog light switch position or to “OFF” position.

*** NOTICE**

- To turn on the rear fog light switch, the ignition switch must be in the ON position.
- When in operation, the fog lights consume large amounts of vehicle electrical power. Only use the fog lights when visibility is poor or unnecessary battery and generator drain could occur.

Headlight levelling device (if equipped)



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

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

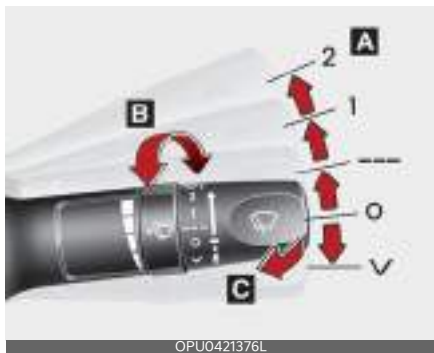
Listed below are the examples of proper switch settings. For loading conditions other than those listed below, adjust the switch position so that the beam level may be the nearest as the condition obtained according to the list.

Switch position	Loading condition	
	Front seats	Luggage
0	driver only	-
1	driver	Full load

Wipers and washers

Windscreen wiper/washer

Type A



Type B



A : Wiper speed control

1. MIST/ ∨ - Single wipe
2. OFF / O - Off
3. INT / --- - Intermittent wipe
4. LO / 1 - Low wiper speed
5. HI / 2 - High wiper speed

B : Intermittent wipe time adjustment

C : Wash with brief wipes (if equipped)

Windscreen wipers

Operates as follows when the ignition switch is turned ON.

1. 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.
2. OFF / O : Wiper is not in operation
3. 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.
4. LO / 1 : Normal wiper speed
5. HI / 2 : Fast wiper speed

* NOTICE

If there is heavy accumulation of snow or ice on the windscreen, defrost the windscreen for about 10 minutes, or until the snow and/or ice is removed before using the windscreen 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.

Windscreen washers

Type A



Type B



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

Use this function when the windscreen 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 windscreen washer fluid to the washer reservoir.

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 windscreen with the defrosters; the washer solution could freeze on the windscreen and obscure your vision.

CAUTION

- To prevent possible damage to the wipers or windscreen, do not operate the wipers when the windscreen is dry.
- To prevent damage to the wiper blades, do not use petrol, 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

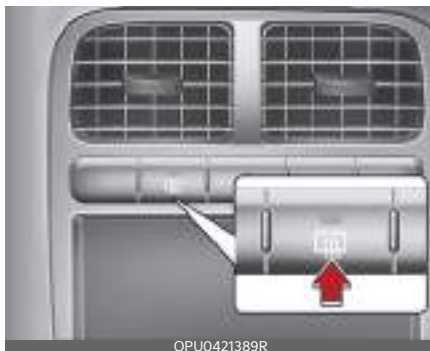
Map lamp



1.  : The light turns on and stays on even when the doors are all closed.
2.  : The light turns on and stays on even when the doors are all closed.
3.  : The light turns on or off when a door is opened or closed.

Defroster (if equipped)

Rear window defroster (if equipped)



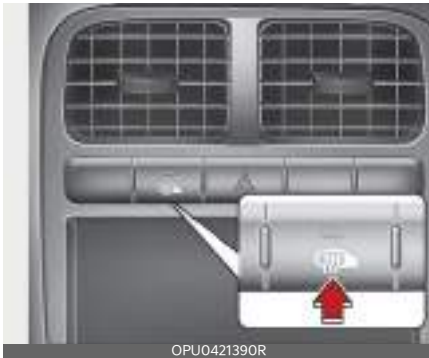
The defroster heats the window to remove frost, fog and thin ice from the interior and exterior of the rear window, whilst engine is running.

To activate the rear window defroster, press the rear window defroster button located in the centre console switch panel. The indicator in the instrument cluster illuminates when the defroster is ON.

If there is heavy accumulation of snow on the rear window, brush it off before operating the rear defroster.

The rear window defroster automatically turns off after 20 minutes or when the ignition switch is turned off. To turn off the defroster, press the rear window defroster button again.

Outside rearview mirror defroster (if equipped)



To activate the Outside rearview mirror defroster, press the Outside rearview mirror defroster button located in the centre console switch panel. If there is heavy accumulation of snow on the outside rearview mirror, brush it off before operating the outside rearview mirror.

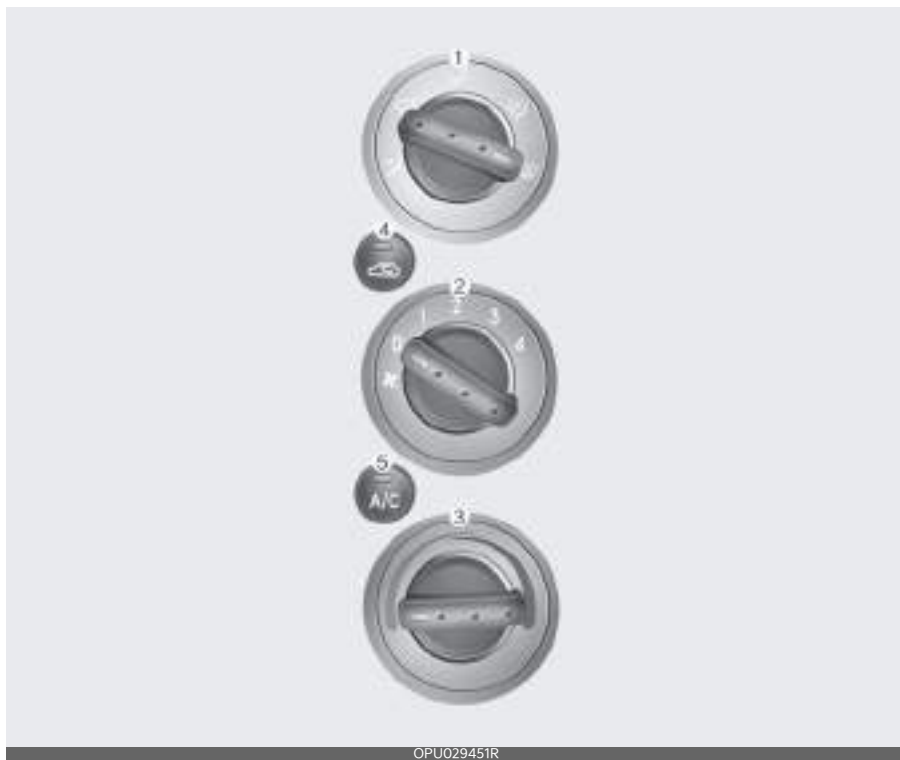
The outside rearview mirror defroster automatically turns off after 20 minutes or when the ignition switch is turned off.

To turn off the defroster, press the outside rearview mirror defroster button again.

* NOTICE

- To prevent damage to the conductors bonded to the inside surface of the rear window, never use sharp instruments or window cleaners containing abrasives to clean the window.
- To prevent the battery from being discharged, operate the defroster only whilst the engine is running.
- If you want to defrost and defog on the front windscreen, refer to "Windscreen defrosting and defogging" on page 4-48.

Climate control system (if equipped)



1. Mode selection knob
2. Fan speed control knob
3. Temperature control knob
4. Air intake control button
5. Air conditioning 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.

Mode selection knob



OPU0421391R

The mode selection knob controls the direction of the air flow through the ventilation system.

Face-Level (A, D)

 Air flow is directed toward the upper body and face. Additionally, each outlet can be controlled to direct the air discharged from the outlet.

Bi-Level (A, C, D)

 Air flow is directed towards the face and the floor.

Floor-Level (B, C, D)

 Most of the air flow is directed to the floor, with a small amount of the air being directed to the windscreen and side window defrosters.

Floor/Defrost-Level (B, C, D)

 Most of the air flow is directed to the floor and the windscreen with a small amount directed to the side window defrosters.

Defrost-Level (B, D)

 Most of the air flow is directed to the windscreen with a small amount of air directed to the side window defrosters.

Temperature control



OPU0421392R

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 for warm and hot air or left for cooler air.

Air intake control



OPU0421393R

This is used to select outside (fresh) air position or recirculated air position. To change the air intake control position, push the control button.

Recirculated air position



With the recirculated air position selected, air from the passenger compartment will be

drawn through the heating system and heated or cooled according to the function selected.

Outside (fresh) air position



With the outside (fresh) air position selected, air enters the vehicle from outside and is heated or cooled according to the function selected.

* NOTICE

Prolonged operation of the heater in the recirculated air position (without air conditioning selected) may cause fogging of the windscreen 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

- Continued climate control system operation in the recirculated air position may allow humidity to increase inside vehicle which may fog the glass and obscure visibility.
- Do not sleep in a vehicle with air conditioning or heating system on. It may cause serious harm or death due to a drop in the oxygen level and/or body temperature.
- Continued climate control system operation in the recirculated air position can cause drowsiness or sleepiness, and loss of vehicle control. Set the air intake control to the outside (fresh) air position as much as possible whilst driving.

Fan speed control



Four (4) adjustable fan speeds are provided which increase as the number increases. The ignition switch must be in the ON position for fan operation.

- 0 - Fan off
- 1 - Low speed
- 2 - Medium speed
- 3 - High speed
- 4 - Maximum speed

Air conditioning (A/C)



Push the A/C button to turn the air conditioning system on (indicator light will illuminate). Push the button again to turn the air conditioning system off.

System operation

Ventilation

1. Set the mode to the  position.
2. Set the air intake control to the outside (fresh) air position.
3. Set the temperature control to the desired position.
4. Set the fan speed control to the desired speed.

Heating

1. Set the mode to the  position.
2. Set the air intake control to the outside (fresh) air position.
3. Set the temperature control to the desired position.
4. Set the fan speed control to the desired speed.
5. If dehumidified heating is desired, turn the air conditioning system on.
- If cool air is desired at face level for bi-level operation, set the mode to the  position.
- If the windscreen fogs up, set the mode to the  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 windscreen. Care should be taken that these are not blocked

by leaves, snow, ice or other obstructions.

- To prevent interior fog on the windscreen, 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

Kia Air Conditioning Systems are filled with environmentally friendly 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.

* : Your vehicle is filled with R-134a according to the regulation in your country at the time of producing. You can find out which air conditioning refrigerant is applied your vehicle at the label inside of engine room.

CAUTION

- The refrigerant system should only be serviced by trained and certified technicians to insure proper and safe operation.
- The refrigerant system should be serviced in a well-ventilated place.
- The air conditioning evaporator (cooling coil) shall never be repaired or replaced with one removed from a used or salvaged vehicle and new replacement MAC evaporators shall

be certified (and labeled) as meeting SAE Standard J2842.

* NOTICE

- When using the air conditioning system, monitor the temperature gauge closely whilst 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 to 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 windows on rainy 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 at idle as the air conditioning compressor cycles on. This is a normal system operation characteristics.
- Use the air conditioning system every month if 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 side of the vehicle. This is a normal system operation characteristics.
- The air conditioning system includes a function that automatically turns the air conditioning compressor off if engine coolant temperature approaches an over heating level. The air conditioning compressor operation will resume once engine coolant temperature returns to the normal range. Also, the air conditioning compressor is automatically turned off for a few seconds when the accelerator is fully depressed (wide open throttle).
- When operating the air conditioning system use the outside (fresh) air position.
- Operating the air conditioning system in the recirculated air position does provide maximum cooling, however, continual operation in this mode may cause the air inside the vehicle to become stale.

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 windscreen even when the outside (fresh) air position is selected. If this happens, have the climate control air filter

replaced by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

* 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, have the system checked by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

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 bad influence on the air conditioning system. Therefore, if abnormal operation is found, have the system inspected by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

⚠ WARNING

Vehicles equipped with R-134a*



Because the refrigerant is at very high pressure, the air conditioning system should only be serviced by trained and certified technicians. It is important that the correct type and amount of oil and refrigerant is used.

Otherwise, it may cause damage to the vehicle and personal injury.

Air conditioner refrigerant and compressor lubricant

⚠ CAUTION

Improper service may cause serious injury to the person performing the service.

For more detailed information, Kia recommends to contact an authorised Kia dealer/service partner.

* NOTICE

When the performance of the air conditioning system is reduced it is important that the correct type and amount of oil and refrigerant is used. Otherwise, damage to the compressor and abnormal system operation may occur.

Windscreen defrosting and defogging

⚠ CAUTION

Do not use the  or  position during cooling operation in extremely humid weather. The difference between the temperature of the outside air and that of the windscreen could cause the outer surface of the windscreen to fog up, causing loss of visibility. In this case, set the mode selection knob to the  position and fan speed control knob 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 whilst defrosting or defogging, set the mode to the floor-defrost position.
- Before driving, clear all snow and ice from the windscreen, rear window, outside rear view mirrors, and all side windows.
- Clear all snow and ice from the bonnet and air inlet in the cowl grill to improve heater and defroster efficiency and to reduce the probability of fogging up inside of the windscreen.

To defog inside windscreen



1. Select any fan speed except "0".
2. Select desired temperature.
3. Select the or position.
4. The outside (fresh) air and air conditioning will be selected.

To defrost outside windscreen



1. Set the fan speed to the "3" or "4" position.
2. Set the temperature to the extreme hot position.
3. Select the position.
4. The outside (fresh) air and air conditioning will be selected.

Defogging logic

To reduce the probability of fogging up the inside of the windscreen, the air intake control is set to the outside (fresh) air position automatically if any of following occur.

- The mode is selected to the or whilst the system is activated.
- The ignition switch is turned on whilst the mode is selected to the or .

In this case, the air conditioning will automatically operate if the mode is selected to the or .

If you don't want the air-conditioning or outside (fresh) air position, press the corresponding button to cancel the operation.

Manual climate control system



1. Turn the ignition switch to the "ON" position.
2. Turn the fan speed control knob to the "0" position.
3. Turn the mode selection knob to the defrost position ().

4. Push the air intake control button (👉) at least 5 times within 3 seconds.

Then the indicator light in the air intake control button will blink 3 times with 0.5 seconds of interval. It indicates that the defogging logic is cancelled or returned to the programmed status.

If the battery has been discharged or disconnected, it is reset as the defog logic status.

Storage compartment

These compartments can be used to store small items required by the driver or passengers.

⚠ CAUTION

- To avoid possible theft, do not leave valuables in the storage compartment.
- Always keep the storage compartment covers closed whilst driving. Do not attempt to place so many items in the storage compartment that the storage compartment cover cannot 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.

Centre seatback console tray



The tray is used for storing cassette tapes or small articles.

Glove box



To open the glove box, pull the handle (1) and the glove box will automatically open (2). Close the glove box after use. For your convenience, a tissue holder is located in the glove box cover.

⚠ WARNING

To reduce the risk of injury in an accident or sudden stop, always keep the glove box door closed whilst driving.

⚠ CAUTION

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 with the lenses facing out. To close the sunglass holder, push it up.

⚠ WARNING

- Do not keep objects except sunglasses inside the sunglass 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 sunglass holder whilst the vehicle is moving. The rear view mirror of the vehicle can be blocked by an opened sunglass holder.
- Do not put the glasses forcibly into a sunglass holder to prevent breakage or deformation of the glasses. It may cause personal injury if you try to open it forcibly when the glasses are jammed in the holder.

Interior features

Cigarette lighter



To operate the cigarette lighter, press it in and release it. When it is heated, it automatically pops out ready for use. If the engine is not running, the ignition switch must be in the ACC position for the lighter to operate.

* NOTICE

- Do not hold the lighter in after it is already heated because it will over-heat.
- Only a genuine Kia lighter should be used in the cigarette lighter socket. The use of plug-in accessories (shavers, hand-held vacuums, and coffee pots, for example) may damage the socket or cause electrical failure.
- If the lighter does not pop out within 30 seconds, remove it to prevent overheating.

⚠ WARNING

- Never attempt to adjust the cigar lighter whilst the vehicle is moving. This could result in loss of control, and an accident causing death, serious injury, or property damage.

- Do not insert foreign objects into the socket of the cigarette lighter. It may damage the cigarette lighter.

Ashtrays



To remove the ashtray to empty or clean, push the tab (1) and pull it all the way 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



The cup holder is used for holding cups and cans.

⚠ WARNING

Hot liquids

- Do not place uncovered cups of hot liquid in the cup holder whilst the vehicle is in motion. If the hot liquid spills, you could be burned. Such a burn to the driver could cause a 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 insecure bottles, glasses, cans, etc., in the cup holder whilst 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**

- Keep your drinks sealed whilst driving to prevent spilling your drink. If liquid spills, it may get into the vehicle's electrical/electronic system and damage electrical/electronic parts.
- When cleaning spilled liquids, do not dry the cup holder at high temperature. This may damage the cup holder.

Sun visor



Use the sun visor to shield direct light through the front or side windows.

To use a sun visor, pull it downward (1).

To use a sun visor for a side window, pull it downward (1), unsnap it from the bracket (2) and swing it to the side (3).

Digital clock



Whenever the battery terminals, or memory fuse are disconnected, you must reset the time.

When the ignition switch is in the ON position, the clock buttons operate as follows:

⚠ WARNING

Never attempt to adjust the digital clock whilst the vehicle is moving.

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

- **HOUR:**

Turn the knob to the left (H), will advance the time displayed by one hour.

- **MINUTE:**

Turn the knob to the right (M), will advance the time displayed by one minute.

- **RESET:**

To clear away minutes, press the knob with your finger. Then the clock will be set precisely on the hour.

For example, if the knob is pressed whilst the time is between 9:01 and 9:29, the display will be reset to 9:00.

9:01~9:29 → 9:00

9:30~9:59 → 10:00

*** NOTICE**

Do not turn the knob excessively to prevent knob damage.

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Infotainment System

Infotainment System

* NOTICE

- If you install an after market HID head lamp, 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.

Antenna



Your car uses a manual stainless steel antenna to receive both AM and FM broadcast signals. Pull up the antenna using your fingers.

* NOTICE

- If the antenna is dirty, be sure to clean it in order to avoid an operation malfunction.
- Before entering an automatic car wash or a place with a low height clearance, be sure that the antenna is fully retracted.

⚠ WARNING

Never attempt to adjust the antenna whilst the vehicle is moving. This could result in loss of control, and an accident causing death, serious injury, or property damage.

AUX and USB port



You can use an AUX port to connect audio devices and an USB port to plug in an USB or iPod®.

* iPod® is a trademark of Apple Inc.

How vehicle audio works

FM reception



AM and FM radio signals are broadcast from transmitter towers located around your city. They are intercepted by the radio antenna on your vehicle. This signal is then received by the radio and sent to your vehicle speakers.

When a strong radio signal has reached your vehicle, the precise engineering of your Infotainment 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 reception



AM broadcasts can be received at greater distances than FM broadcasts. This is because AM radio waves are transmitted at low frequencies. These long, low frequency radio waves can follow the curvature of the earth rather than travelling straight out into the atmosphere. In addition, they curve around obstructions so that they can provide better signal coverage.

FM radio station



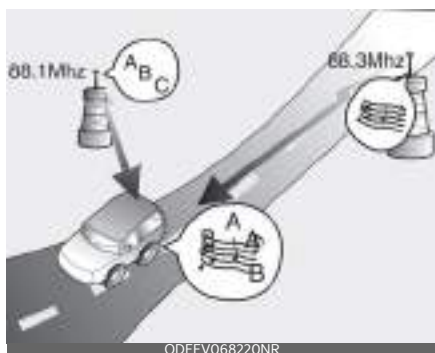
FM broadcasts are transmitted at high frequencies and do not bend to follow the earth's surface. Because of this, FM broadcasts generally begin to fade at short distances from the station.

Also, FM signals are easily affected by buildings, mountains, or other obstructions. These can result in certain listening conditions which might lead you to believe a problem exists with your radio. The following conditions are normal and do not indicate radio trouble:

- **Fading** - As your vehicle moves away from the radio station, the signal will weaken and sound will begin to fade. When this occurs, we suggest that you select another stronger station.



- Flutter/Static - Weak FM signals or large obstructions between the transmitter and your radio can disturb the signal causing static or fluttering noises to occur. Reducing the treble level may lessen this effect until the disturbance clears.
- Station Swapping - As a FM signal weakens, another more powerful signal near the same frequency may begin to play. This is because your radio is designed to lock onto the clearest signal. If this occurs, select another station with a stronger signal.



- Multi-Path Cancellation - Radio signals being received from several directions can cause distortion or fluttering. This can be caused by a direct and reflected signal from the same station, or by signals from two stations with close frequencies. If this occurs, select another station until the condition has passed.

Using a mobile phone or a two-way radio

When a mobile phone is used inside the vehicle, noise may be produced from the audio equipment. This does not mean that something is wrong with the audio equipment. In such a case, use the

mobile phone at a place as far as possible from the audio equipment.

⚠ CAUTION

When using a communication system such as a mobile phone or a radio set inside the vehicle, a separate external antenna must be fitted. When a mobile 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

Cell phone use

Don't use a mobile phone when you are driving. You should stop at a safe place to use a mobile phone.

iPod®

iPod® is a trademark of Apple Inc.

Bluetooth® Wireless Technology

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Kia is under license. Other trademarks and trade names are those of their respective owners.



Audio (Without Touch Screen A Type)

Type A-1



Type A-2



Feature of Your Audio
Head unit

Type A-1



Type A-2



* The actual features in the vehicle may differ from the illustration.

- 1. **RADIO**
 - Plays Radio(FM/AM) mode.
 - Each time the button is pressed, the mode is changed sequentially.
- 2. **MEDIA**
 - Plays Media USB(iPod®), AUX mode.
 - Each time the button is pressed, the mode is changed sequentially.
- 3. **POWER/VOL knob**
 - Power knob: Turns power On/Off by pressing the knob.
 - Volume knob: Sets volume by turning the knob left/right.
- 4. **SEEK**
When pressed quickly
 - Radio mode: Searches broadcast frequencies.
 - Media mode: Changes the track, file or title. (except AUX)

When pressed and held

- Frequency is controlled by 1 step quickly. When the button is released after pressing and holding, searches broadcast frequencies.
- Media mode: Rewinds or fast-forwards the song. (except AUX)

5. **[1] ~ [3]** (Preset)

When pressed quickly

- Radio mode: Receives saved frequencies (channels).
- Media mode (except AUX)
 - **[1 RPT]** button: Repeat/Repeat Folder
 - **[2 RDM]** button: Random Folder/Random

When pressed and held

- Radio mode: Saves frequencies (channels).

Type A-1



Type A-2



6. **SETUP**

- Moves to Setup screen.

7. **BACK**

- Moves to previous screen.

8. **TUNE** knob

- Pressing **TUNE** knob: Displays menus for the current mode.
- Radio mode: Changes frequency by turning the knob left/right.
- Media mode: Searches songs (files) by turning the knob left/right.

9. **FLDR**

- USB mode: Searches folders.

Steering Wheel Controls



* The actual features in the vehicle may differ from the illustration.

1. **VOLUME**

- Controls the audio volume

2. **MUTE**

- Mutes the audio volume.

3. **MODE**

- Each time this is pressed, the mode is changed sequentially.
- If the media is not connected, the corresponding modes will be disabled.
- Press and hold to turn the Infotainment System on/off*.
- When power is off, press button to turn power back on*.

* if equipped

4. **SEEK/TRACK**

When pressed quickly

- Radio mode: Searches broadcast frequencies saved to Presets.

- Media mode: Changes track, file or title. (except AUX)

When pressed and held

- Frequency is controlled by 1 step quickly. When the button is released after pressing and holding, searches broadcast frequencies.
- Media mode: Rewinds or fast-forwards the song. (except AUX)

WARNING

Infotainment System Safety Warnings

- Do not stare at the screen whilst driving. Staring at the screen for prolonged periods of time could lead to traffic accidents.
- Do not disassemble, assemble, or modify the Infotainment System. Such acts could result in accidents, fire, or electric shock.
- Using the phone whilst driving may lead to a lack of attention of traffic conditions and increase the likelihood of accidents. Use the phone feature after parking the vehicle.
- Exercise caution not to spill water or introduce foreign objects into the device. Such acts could lead to smoke, fire, or product malfunction.
- 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 prod-

uct. 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.

WARNING

Distracted Driving

Driving whilst 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.

CAUTION

- Operating the device whilst 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.)
- If you want to change the position of device installation, please inquire with

your place of purchase or service maintenance centre. Technical expertise is required to install or disassemble the device.

- Turn on the car ignition before using this device. Do not operate the Infotainment 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 colour/quality deterioration.
 - Do not place beverages close to the Infotainment System. Spilling beverages may lead to system malfunction.
 - In case of product malfunction, please contact your place of purchase or After Service centre.
 - Placing the Infotainment 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.
-

Radio

Radio Mode

Change Mode: [RADIO] button

- Plays Radio (FM/AM) mode. Each time the button is pressed, the mode is changed sequentially.

Search Frequency: [SEEK] button

- Searches the previous/next broadcast frequencies.
- Pressing the button: Searches broadcast frequencies.
- Frequency is controlled by 1 step quickly. When the button is released after pressing and holding, searches broadcast frequencies.

Change Frequency: TUNE knob

- Changes frequency by turning the knob left/right. You can seek available frequencies manually.

Saved Frequency: [1] ~ [3] (Pre-set) buttons

- Pressing the button: Plays the frequency saved in the corresponding button.
- Pressing and holding the button: Saves the currently playing broadcast to the selected button.

FM/AM (without RDS)



Displays Menu Popup when pressing the **TUNE** knob. Select menu by turning the **TUNE** knob.

- **A.STORE:** Saves broadcasts with superior reception to **[1] ~ [3]** buttons. If no frequencies are received, then the most recently received frequency will be broadcast.
- **SCAN:** The broadcast frequency increases and previews each broadcast for 5 seconds each. After scanning all frequencies, returns and plays the current broadcast frequency.
- **SOUND:** Moves to Sound Settings.

Media

*** NOTICE**

Using MP3

Supported Audio Formats

Compressed audio formats	MPEG1 Audio Layer3
	MPEG2 Audio Layer3
	MPEG2.5 Audio Layer3
	Windows Media Audio Ver 7.X & 8.X

*** NOTICE**

File formats that do not comply with the above formats may not be properly recognized or play without properly displaying file names or other information.

Support for Compressed Files

1. Supported Bitrates (Kbps)

BIT RATE(kbps)	MPEG1 Layer3	MPEG2 Layer3	MPEG2.5 Layer3	WMA High Range
	32	8	8	48
	40	16	16	64
	48	24	24	80
	56	32	32	96
	64	40	40	128
	80	48	48	160
	96	56	56	192
	112	64	64	
	128	80	80	
	160	96	96	
	192	112	112	
	224	128	128	
	256	144	144	
	320	160	160	

2. Sampling Frequencies (Hz)

MPEG1	MPEG2	MPEG2.5	WMA
44100	22050	11025	32000
48000	24000	12000	44100
3000	16000	8000	48000

- For MP3/WMA compression files, differences in sound quality will occur depending on the bitrate. (Higher sound quality can be experienced with higher bitrates.)
- This device only recognizes files with MP3/WMA extensions. Other file extensions may not be properly recognized.

3. Maximum number of recognized folders and files.

- Folder: 1,000 folders for USB
- File: 5,000 files for USB

- There are no limitations to the number of recognized folder levels.

*** NOTICE**

Using the USB Devices

- Connect the USB device after turning on the engine. The USB device may become damaged if it is already connected when the ignition is turned on. The USB device may not operate properly if the car ignition is turned on or off with the USB device connected.
- Be careful for static electricity when connecting/disconnecting USB devices.
- Encoded MP3 Players will not be recognized when connected as an external device.
- When connecting an external USB device, the vehicle's Infotainment System may not recognize the USB depending on what firmware is used by USB device or what files are on the USB.
- Only products formatted with byte/sectors under 64Kbyte will be recognized.
- This device recognizes USB devices formatted in FAT 12/16/32 file formats. This device does not recognize files in NTFS file format.
- Some USB devices may not be supported due to compatibility issues.
- Avoid contact between the USB connector and bodily parts or foreign objects.
- Repeated connecting/disconnecting of USB devices within short periods of time may result in product malfunction.
- A strange noise may occur when disconnecting the USB.
- Make sure to connect/disconnect external USB devices with the audio power turned off.
- The amount of time required to recognize the USB device may differ depending on the type, size or file formats stored on the USB. Such differences in time are not indications of malfunctions.
- The vehicle Infotainment System only supports USB devices designed to play music files.
- USB images and videos are not supported.
- Do not use the USB I/F to charge batteries or USB accessories that generate heat. Doing so may lead to worsened performance or damage to the Infotainment System.
- The Infotainment System may not recognize the USB device if separately purchased USB hubs and extension cables are being used. Connect the USB device directly with the USB port of the vehicle.
- When using mass storage USB devices with separate logical drives, only files saved to the root drive can be played.
- Files may not properly operate if application programs are installed on the USBs.
- The Infotainment System may not operate normally if MP3 Players, mobile phones, digital cameras, or other electronic devices (USB devices not recognized as portable disk drives) are connected with the Infotainment System.
- Charging through the USB may not work for some mobile devices.
- The device may not support normal operation when using an atypical USB

memory device (miniature, keychain, etc.). For best results, use a typical USB device that has a metal case.

- 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.).
- USB memory sticks used by connecting an Adaptor (SD Type or CF Type) may not be properly recognized.
- The device may not operate properly when using USB HDDs or USBs subject to connection failures caused by vehicle vibrations. (e.g. i-stick type)
- Avoid use of USB memory products that can also be used as key chains or mobile phone accessories. Use of such products may cause damage to the USB jack.
- Connecting an MP3 device or phone through various channels, such as AUX or Audio/USB mode may result in pop noises or abnormal operation.



* NOTICE

Using an iPod®

- iPod® is a registered trademark of Apple Inc.
- In order to use the iPod® with your vehicle's Infotainment System, you must use a dedicated iPod® cable. (the cable that is supplied when purchasing iPod®/iPhone® products)
- If the iPod® is connected to the vehicle whilst it is playing, a high pitch sound could occur for approximately 1-2 seconds immediately after connecting. If possible, connect the iPod® to the vehicle with the iPod® stopped/paused.
- When the vehicle ignition is set to ACC or ON, connecting the iPod® through the iPod® cable will charge the iPod® through the car Infotainment System.
- When connecting with the iPod® cable, make sure to fully insert the jack to prevent communication interference.
- When the EQ features of an external device, such as the iPod®, and the Infotainment System are both active, EQ effects could overlap and cause sound deterioration and distortion. Whenever possible, turn off the EQ feature within the external device when it is connected to the Infotainment System.
- Noise may occur when an iPod® or AUX device is connected. When such devices are not being used, disconnect the device for storage.
- When the iPod® or AUX device power is connected to the power jack, playing the external device may result in noise. In such cases, disconnect the power connection before use.
- 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).
- iPod® mode cannot be operated when the iPod® cannot be recognized due

to the playing of versions that do not support communication protocols, cases of iPod® abnormalities and defects.

- For fifth generation iPod® Nano devices, the iPod® may not be recognized when the battery level is low. Please charge the iPod® for use.
- The search/play orders shown within the iPod® device may differ from the orders shown within the Infotainment System.
- If the iPod® malfunctions due to an iPod® device defect, reset the iPod® and try again. (To learn more, refer to your iPod® manual)
- Some iPod®s may not sync with the System depending on the version. If the Media is removed before the Media is recognized, then the system may not properly restore the previously operated mode. (iPad® charging is not supported.)
- Use an iPod® cable shorter than 1 meter in length such as the one originally supplied with a new iPod®, longer cables may lead to the Infotainment System not recognizing the iPod®.

Media Mode

Change Mode: [MEDIA] button

- Press the [MEDIA] button to change the mode in order of USB(iPod®) → AUX.
- If media device(USB, AUX) is connected, then it will automatically oper-

ate. Once it is disconnected, the previous mode will be restored.

Repeat: [1 RPT] button

- Repeats the current song or repeats all songs within the current folder.
- iPod® mode: Repeat Song → Repeat Off
- USB mode: Repeat Song → Repeat Folder → Off

Random: [2 RDM] button

- Plays all songs within the current folder(category) or play all songs in random order.
- iPod® mode: Random Folder → Random Off
- USB mode: Random Folder → Random All → Off

Change Song/File: [SEEK] button

[v SEEK] button

- Pressing the button: Plays the current song from the beginning. If the [v SEEK] button is pressed again within 3 seconds, the previous song is played.
- Pressing and holding the button: Rewinds the song.

[SEEK ^] button

- Pressing the button: Plays the next song.
- Pressing and holding the button: Fast-forwards the song.

* NOTICE

AUX don't support Repeat, Random, SEEK and Rewind/Fast forward feature.

Search Song: TUNE knob

- Turning **TUNE** knob: Searches for songs(files).
- Pressing **TUNE** knob: Plays selected song(file).

* NOTICE

AUX and iPod® don't support playlist feature.

Search Folder: [FLDR] button

- Searches the previous/next folder. (USB)
- If a folder is selected by pressing the **TUNE** knob, the first file within the selected folder will be played.

USB



Displays Menu Popup when pressing the **TUNE** knob.

- LIST: Moves to the list screen.
- SCAN: Scans the beginning parts of all songs. (approximately 10 seconds per file)
- SOUND: Moves to Sound Settings.

iPod®



Displays Menu Popup when pressing the **TUNE** knob.

- SOUND: Moves to Sound Settings.

AUX



Displays Menu Popup when pressing the **TUNE** knob.

- SOUND: Moves to Sound Settings.

* NOTICE

- AUX mode can be used only when an external audio player has been connected.
- If only a cable is connected to the AUX without an external device, the mode will be changed to AUX, but noise may occur. When an external device is not being used, remove the connector jack.
- When the external device power is connected to the power jack, playing the external device may output noise. In such cases, disconnect the power connection before use.

Setup

Sound Settings

Press the **[SETUP]** button → Select [SOUND].

- BASS, MIDDLE, TREBLE: Selects the sound tone.
- BALANCE: Selects the sound balance.
- DEFAULT: Restores default settings.

Speed dependent vol.

Press the **[SETUP]** button → Select [SDVC].

- The volume level is controlled automatically according to the vehicle speed. SDVC can be set by selecting from On/Off.

Display Off

Press the **[SETUP]** button → Select [DISP OFF].

- Audio operation is maintained and only the screen will be turned Off. In the Screen Off state, press any button to turn the Screen On again.

Audio (Without Touch Screen B Type)

Type B-1



Type B-2



Feature of Your Audio
Head Unit

Type B-1



Type B-2



* The actual features in the vehicle may differ from the illustration.

1. **RADIO**

- Plays Radio(FM/AM) mode.
- Each time the button is pressed, the media mode popup will be displayed or closed.
- The radio mode popup will not be displayed when **[SETUP]** button ► [Display] ► [Mode popup] is turned [Off].

2. **MEDIA**

- Plays USB(iPod®), AUX mode.

- Each time the button is pressed, the media mode popup will be displayed or closed.
- The radio mode popup will not be displayed when **[SETUP]** button ► [Display] ► [Mode popup] is turned [Off].

3. **SETUP**

- Moves to Setup screen.

4. **POWER/VOL** knob

- Power knob: Turns power On/Off by pressing the knob.
- Volume knob: Sets volume by turning the knob left/right.

5. **SEEK/TRACK**

When pressed quickly

- Radio mode: Searches broadcast frequencies.
- Media mode: Changes the track, file or title. (except AUX)

When pressed and held

- Radio mode: Frequency is controlled by 1 step quickly. When the button is released after pressing and holding, searches broadcast frequencies.
- Media mode: Rewinds or fast-forwards the song. (except AUX)

Type B-1



Type B-2



6. **DISP**

- Turns off the screen.
- Each time the button is pressed, it sets the Screen Off → On → Off.

7. **MENU**

- Displays menus for the current mode.

8. **BACK**

- Moves to previous screen.

9. **TUNE** knob

- Radio mode: Changes frequency by turning the knob left/right.
- Media mode: Searches songs(files) by turning the knob left/right.

10. **FLDR**

- USB mode: Searches folders.



11. **[1] ~ [6]** (Preset)

When pressed quickly

- Radio mode: Receives saved frequencies(channels).
- Media mode(USB)
 - **[1 RPT]** button: Repeat/Repeat Folder
 - **[2 SHFL]** button: Shuffle Folder/ Shuffle

- Media mode(iPod®)
 - **[1 RPT]** button: Repeat
 - **[2 SHFL]** button: Shuffle
 - In case of Menu popup, the number menu is selected.
- When pressed and held
- Radio mode: Saves frequencies (channels).

Type B-3



Type B-4



(With Bluetooth® Wireless Technology)

Feature of Your Audio
Head Unit

Type B-3



Type B-4



* The actual features in the vehicle may differ from the illustration.

1. **RADIO**

- Plays Radio(FM/AM) mode.
- Each time the button is pressed, the media mode popup will be displayed or closed.
- The radio mode popup will not be displayed when **[SETUP]**button ► [Display] ► [Mode popup] is turned [Off].

2. **MEDIA**

- Plays USB(iPod®), BT Audio, AUX mode.

- Each time the button is pressed, the media mode popup will be displayed or closed.
- The radio mode popup will not be displayed when **[SETUP]**button ► [Display] ► [Mode popup] is turned [Off].

3. **PHONE**

- Moves to Phone screen.
- If Bluetooth® is not connected, displays Bluetooth® Pair/Connection screen.

4. **POWER/VOL** knob

- Power knob: Turns power On/Off by pressing the knob.
- Volume knob: Sets volume by turning the knob left/right.

5. **SEEK/TRACK**

When pressed quickly

- Radio mode: Searches broadcast frequencies.
- Media mode: Changes the track, file or title. (except AUX)

When pressed and held

- Radio mode: Frequency is controlled by 1 step quickly. When the button is released after pressing and holding, searches broadcast frequencies.
- Media mode: Rewinds or fast-forwards the song. (except BT Audio, AUX)

Type B-3



Type B-4

**6. SETUP**

- Moves to Setup screen.

7. MENU

- Displays menus for the current mode.

8. BACK

- Moves to previous screen.

9. TUNE knob

- Radio mode: Changes frequency by turning the knob left/right.
- Media mode: Searches songs(files) by turning the knob left/right.

10. FLDR

- USB mode: Searches folders.

**11. [1] ~ [6] (Preset)**

When pressed quickly

- Radio mode: Receives saved frequencies(channels).
- Media mode(USB)
 - **[1 RPT]** button: Repeat/Repeat Folder
 - **[2 SHFL]** button: Shuffle Folder/ Shuffle
- Media mode(iPod®)
 - **[1 RPT]** button: Repeat
 - **[2 SHFL]** button: Shuffle
- In case of Menu popup, the number menu is selected.

When pressed and held

- Radio mode: Saves frequencies (channels).

Type B-5



Type B-5



(With Bluetooth® Wireless Technology)

Feature of Your Audio

Head Unit

Type B-5



Type B-6



* The actual features in the vehicle may differ from the illustration.

1. **EJECT**

- Ejects the disc.

2. **MEDIA**

- Plays Disc, USB(iPod®), BT Audio, AUX mode.
- Each time the button is pressed, the media mode popup will be displayed or closed.
- The radio mode popup will not be displayed when **[SETUP]** button ► [Display] ► [Mode popup] is turned [Off].

3. **PHONE**

- Moves to Phone screen.
- If Bluetooth® is not connected, displays Bluetooth® Pair/Connection screen.

4. **SETUP**

- Moves to Setup screen.

5. **RADIO**

- Plays Radio(FM/AM) mode.
- Each time the button is pressed, the media mode popup will be displayed or closed.
- The radio mode popup will not be displayed when **[SETUP]** button ► [Display] ► [Mode popup] is turned [Off].

6. **SEEK/TRACK**

When pressed quickly

- Radio mode: Searches broadcast frequencies.
- Media mode: Changes the track, file or title. (except AUX)

When pressed and held

- Radio mode: Frequency is controlled by 1 step quickly. When the button is released after pressing and holding, searches broadcast frequencies.
- Media mode: Rewinds or fast-forwards the song. (except BT Audio, AUX)

7. **POWER/VOL knob**

- Power knob: Turns power On/Off by pressing the knob.
- Volume knob: Sets volume by turning the knob left/right.

Type B-5



Type B-6



8. MENU

- Displays menus for the current mode.

9. DISP

- Turns off the screen.
- Each time the button is pressed, it sets the Screen Off → On → Off.

10. BACK

- Moves to previous screen.

11. FLDR

- Disc MP3, USB mode: Searches folders.

12. TUNE knob

- Radio mode: Changes frequency by turning the knob left/right.
- Media mode: Searches songs (files) by turning the knob left/right.



13. [1] ~ [6] (Preset)

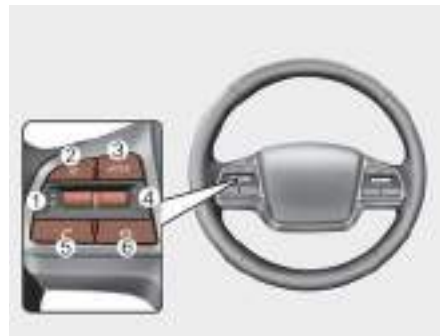
When pressed quickly

- Radio mode: Receives saved frequencies (channels).
- Media mode (USB, Disc MP3)
 - **[1 RPT]** button: Repeat/Repeat Folder
 - **[2 SHFL]** button: Shuffle Folder/Shuffle
- Media mode (iPod®, Disc CD)
 - **[1 RPT]** button: Repeat
 - **[2 SHFL]** button: Shuffle
- In case of Menu popup, the number menu is selected.

When pressed and held

- Radio mode: Saves frequencies (channels).

Steering wheel remote control



* The actual features in the vehicle may differ from the illustration.

1. VOLUME

- Controls the audio or call volume.

2. MUTE

- Mutes the audio volume.

- When a call is active, mic volume is muted.

3. **MODE**

- Each time this is pressed, the mode is changed sequentially.
- If the media is not connected, the corresponding modes will be disabled.
- Press and hold to turn the Infotainment System on/off*.
- When power is off, press button to turn power back on*.

* if equipped

4. **SEEK/TRACK**

- When pressed quickly
 - Radio mode: Searches broadcast frequencies saved to Presets.
 - Media mode: Changes track, file or title. (except AUX)
- When pressed and held
 - Radio mode: Frequency is controlled by 1 step quickly. When the button is released after pressing and holding, searches broadcast frequencies.
 - Media mode: Rewinds or fast-forwards the song. (except BT Audio*, AUX)

* if equipped

5. **CALL (if equipped)**

- When pressed quickly
 - Display the last dialed number.
 - When pressed in the incoming call screen, answers the call.
 - When pressed during call waiting, switches to waiting call.
- When pressed and held
 - Call to last dialed number.
 - When pressed during a Bluetooth® Handsfree call, switches call back

to Bluetooth® device (private mode).

- When pressed whilst calling on the Bluetooth® device, switches call back to Bluetooth® Handsfree.
- If Bluetooth® is not connected, displays Bluetooth® Pair/Connection screen.

6. **END (if equipped)**

- When pressed during a call, ends the phone call.
- When pressed in the incoming call screen, rejects the call.

WARNING

Infotainment System Safety Warnings

- Do not stare at the screen whilst driving. Staring at the screen for prolonged periods of time could lead to traffic accidents.
- Do not disassemble, assemble, or modify the Infotainment System. Such acts could result in accidents, fire, or electric shock.
- Using the phone whilst driving may lead to a lack of attention of traffic conditions and increase the likelihood of accidents. Use the phone feature after parking the vehicle.
- Exercise caution not to spill water or introduce foreign objects into the device. Such acts could lead to smoke, fire, or product malfunction.
- 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 lightning 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.

WARNING

Distracted Driving

Driving whilst 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.

CAUTION

- Operating the device whilst 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.)

- If you want to change the position of device installation, please inquire with your place of purchase or service maintenance centre. Technical expertise is required to install or disassemble the device.
- Turn on the car ignition before using this device. Do not operate the Infotainment 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 colour/quality deterioration.
- Do not place beverages close to the Infotainment System. Spilling beverages may lead to system malfunction.
- In case of product malfunction, please contact your place of purchase or After Service centre.
- Placing the Infotainment 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.

Radio

Radio Mode

Change Mode: [RADIO] button

- Plays Radio mode. Each time the button is pressed, the radio mode popup will be displayed or closed.
- The radio mode popup will not be displayed when [SETUP] button ► [Display] ► [Mode popup] is turned [Off].

Search Frequency: [SEEK/TRACK] button

- Searches the previous/next broadcast frequencies.
 - Pressing the button: Searches broadcast frequencies.
 - Frequency is controlled by 1 step quickly. When the button is released after pressing and holding, searches broadcast frequencies.

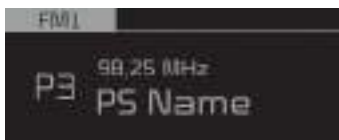
Change Frequency: TUNE knob

- Changes frequency by turning the knob left/right. You can seek available frequencies manually.

Saved Frequency: [1] ~ [6] (Pre-set) buttons

- Pressing the button: Plays the frequency saved in the corresponding button.
- Pressing and holding the button: Saves the currently playing broadcast to the selected button and sound a BEEP.

FM/AM (with RDS)



FM/AM (without RDS)



Displays Menu Popup when pressing the [MENU] button.

Autostore

Saves broadcasts with superior reception to [1] ~ [6] buttons. If no frequencies are received, then the most recently received frequency will be broadcast.

Scan

The broadcast frequency increases and previews each broadcast for 5 seconds each. After scanning all frequencies, returns and plays the current broadcast frequency.

Sound Settings

Moves to Sound Settings.

Traffic Announcement (for RDS model)

TA (Traffic Announcement) feature On/Off.

Presets (for RDS model)

Displays saved presets.

Media

* NOTICE

Using Compact Discs (if equipped)

- This device has been manufactured to be compatible with software bearing the following logo marks.
 - Do not clean discs with chemical solutions, such as record sprays, antistatic sprays, antistatic liquids, benzene, or thinners.
 - After using a disc, put the disc back in its original case to prevent disc scratches.
 - Hold discs by their edges or within the centre hole to prevent damage to disc surfaces.
 - Do not introduce foreign substances into the disc insert/eject slot. Introducing foreign substances could damage the device interior.
 - Do not insert two discs simultaneously.
 - When using CD-R/CD-RW discs, differences in disc reading and playing times may occur depending on the disc manufacturer, production method and the recording method used.
 - Clean fingerprints and dust off the disc surface (coated side) with a soft cloth.
 - The use of CD-R/CD-RW discs attached with labels may result in disc slot jams or difficulties in disc removal. Such discs may also result in noise whilst playing.
 - Some CD-R/CD-RW discs may not properly operate depending on the disc manufacturer, production method and the recording method used. If problems persist, trying using a different CD as continued use may result in malfunctions.
 - The performance of this product may differ depending on the CDRW Drive Software.
 - Copy-protected CDs such as Stype CDs may not function in the device. DATA discs cannot be played. (However, such discs may still operate but will do so abnormally.)
 - Do not use abnormally shaped discs (8cm, heart-shaped, octagon shaped) as such discs could lead to malfunctions.
 - If the disc is straddled on the disc slot without removal for 10 seconds, the disc will automatically be re-inserted into the disc player.
 - Only genuine audio CDs are supported. Other discs may result in recognition failure. (e.g. copy CDR, CDs with labels)
-
- Compatibility by Disc Type
 1. Playing MIXED CDs: First plays the audio CD, then plays the compressed file(s).
 2. Playing EXTRA CDs: First plays the audio CD, then plays the compressed file(s).
 3. Playing multi session CDs: Plays in order of sessions.
 - MIXED CD: CD type in which both MP3 and audio CD files are recognized in one disc.
 - Multisession CD: CD type that includes more than two sessions. Different from Extra CDs, multisession CDs are recorded by sessions and have no media limitation.

⚠ CAUTION

Upon Writing Disc

- In all cases except when creating multi session discs, check the close session option before creating the disc. Though product malfunctions will not occur, some time may be required for the device to check whether the session state is closed (approximately 25 seconds). (Additional time may also be required depending on the number of folders or files.)
- Changing the MP3/WMA file extensions or changing files of other extensions to MP3/WMA may result in product malfunction.
- When naming files with MP3/WMA file extensions, write using only Korean and English. (Korean, English and Chinese are supported.)
- Unauthorised use or duplication of music files are prohibited by law.
- Prolonged use of CD-R/CDRW discs that do not satisfy related standards and/or specifications could result in product malfunction.

*** NOTICE**

Using MP3

Supported audio formats

File System	ISO 9660 Level 1
	ISO 9660 Level 2
	Romeo/Juliet (128 characters)
Audio Compression	MPEG1 Audio Layer3
	MPEG2 Audio Layer3
	MPEG2.5 Audio Layer3
	Windows Media Audio Ver 7.X & 8.X

*** NOTICE**

File formats that do not comply with the above formats may not be properly recognized or play without properly displaying file names or other information.

Support for Compressed Files

1. Supported Bitrates (Kbps)

BIT RATE (kbps)	MPEG1	MPEG2	MPEG2.5	WMA
	Layer3	Layer3	Layer3	High Range
	32	8	8	48
	40	16	16	64
	48	24	24	80
	56	32	32	96
	64	40	40	128
	80	48	48	160
	96	56	56	192
	112	64	64	
	128	80	80	
	160	96	96	
	192	112	112	
	224	128	128	
	256	144	144	
	320	160	160	

2. Sampling Frequencies (Hz)

MPEG1	MPEG2	MPEG2.5	WMA
44100	22050	11025	32000
48000	24000	12000	44100
3000	16000	8000	48000

- For MP3/WMA compression files, differences in sound quality will occur depending on the bitrate. (Higher sound quality can be experienced with higher bitrates.)
- This device only recognizes files with MP3/WMA extensions. Other file

extensions may not be properly recognized.

3. Maximum number of recognized folders and files

- Folder: 1,000 folders for USB
- File: 5,000 files for USB
- There are no limitations to the number of recognized folder levels.

4. Text Display (Based on Unicode)

- File name: Maximum 40 English characters
- Folder name: Max 40 English characters

* NOTICE

Using the scroll feature allows you to see the entire name of files with names that are too long to be displayed at once.

Language Support (Unicode Support)

- Korean: 2,604 characters
- English: 94 characters
- Common Chinese characters: 4,888 characters
- Special symbols: 986 characters

* NOTICE

Japanese/Simplified Chinese characters are not supported.

* NOTICE

Using the USB Devices

- Connect the USB device after turning on the engine. The USB device may become damaged if it is already connected when the ignition is turned on.

- The USB device may not operate properly if the car ignition is turned on or off with the USB device connected.
- Be careful for static electricity when connecting/disconnecting USB devices.
 - Encoded MP3 Players will not be recognized when connected as an external device.
 - When connecting an external USB device, the vehicle's Infotainment System may not recognize the USB depending on what firmware is used by USB device or what files are on the USB.
 - Only products formatted with byte/sectors under 64Kbyte will be recognized.
 - This device recognizes USB devices formatted in FAT 12/16/32 file formats. This device does not recognize files in NTFS file format.
 - Some USB devices may not be supported due to compatibility issues.
 - Avoid contact between the USB connector and bodily parts or foreign objects.
 - Repeated connecting/disconnecting of USB devices within short periods of time may result in product malfunction.
 - A strange noise may occur when disconnecting the USB.
 - Make sure to connect/disconnect external USB devices with the audio power turned off.
 - The amount of time required to recognize the USB device may differ depending on the type, size or file formats stored on the USB. Such differences in time are not indications of malfunctions.

- The vehicle Infotainment System only supports USB devices designed to play music files.
- USB images and videos are not supported.
- Do not use the USB I/F to charge batteries or USB accessories that generate heat. Doing so may lead to worsened performance or damage to the Infotainment System.
- The Infotainment System may not recognize the USB device if separately purchased USB hubs and extension cables are being used. Connect the USB device directly with the USB port of the vehicle.
- When using mass storage USB devices with separate logical drives, only files saved to the root drive can be played.
- Files may not properly operate if application programs are installed on the USBs.
- The Infotainment System may not operate normally if MP3 Players, mobile phones, digital cameras, or other electronic devices (USB devices not recognized as portable disk drives) are connected with the Infotainment System.
- Charging through the USB may not work for some mobile devices.
- The device may not support normal operation when using an atypical USB memory device (miniature, keychain, etc.). For best results, use a typical USB device that has a metal case.
- 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.).
- USB memory sticks used by connecting an Adaptor (SD Type or F Type) may not be properly recognized.
- The device may not operate properly when using USB HDDs or USBs subject to connection failures caused by vehicle vibrations. (e.g. i-stick type)
- Avoid use of USB memory products that can also be used as key chains or mobile phone accessories. Use of such products may cause damage to the USB jack.
- Connecting an MP3 device or phone through various channels, such as AUX/BT or Audio/USB mode may result in pop noises or abnormal operation.



* NOTICE

Using an iPod®

- iPod® is a registered trademark of Apple Inc.
- In order to use the iPod® with your vehicle's Infotainment System, you must use a dedicated iPod® cable. (the cable that is supplied when purchasing iPod®/iPhone® products)
- If the iPod® is connected to the vehicle whilst it is playing, a high pitch sound could occur for approximately 1-2 seconds immediately after connecting. If possible, connect the iPod® to the vehicle with the iPod® stopped/paused.
- When the vehicle ignition is set to ACC or ON, connecting the iPod® through the iPod® cable will charge the iPod® through the car Infotainment System.

- When connecting with the iPod® cable, make sure to fully insert the jack to prevent communication interference.
- When the EQ features of an external device, such as the iPod®, and the Infotainment System are both active, EQ effects could overlap and cause sound deterioration and distortion. Whenever possible, turn off the EQ feature within the external device when it is connected to the Infotainment System.
- Noise may occur when an iPod® or AUX device is connected. When such devices are not being used, disconnect the device for storage.
- When the iPod® or AUX device power is connected to the power jack, playing the external device may result in noise. In such cases, disconnect the power connection before use.
- 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).
- iPod® mode cannot be operated when the iPod® cannot be recognized due to the playing of versions that do not support communication protocols, cases of iPod® abnormalities and defects.
- For fifth generation iPod® Nano devices, the iPod® may not be recognized when the battery level is low. Please charge the iPod® for use.
- The search/play orders shown within the iPod® device may differ from the orders shown within the Infotainment System.
- If the iPod® malfunctions due to an iPod® device defect, reset the iPod® and try again. (To learn more, refer to your iPod® manual)
- Some iPod®s may not sync with the System depending on the version. If the Media is removed before the Media is recognized, then the system may not properly restore the previously operated mode. (iPad® charging is not supported.)
- Use an iPod® cable shorter than 1 meter in length such as the one originally supplied with a new iPod®, longer cables may lead to the Infotainment System not recognizing the iPod®.

* NOTICE

Using the Bluetooth® Wireless Technology Audio Mode (if equipped)

- Bluetooth® Wireless Technology Audio Mode can be used only when a Bluetooth® Wireless Technology phone has been connected.
- Bluetooth® Wireless Technology Audio Mode will not be available when connecting mobile phones that do not support this feature.
- If a Bluetooth® Wireless Technology Phone is being used to play music and receives an incoming or outgoing phone call, then the music will stop.

- Moving the Track up/down whilst playing Bluetooth® Wireless Technology audio mode may result in pop noises with some mobile phones.
- Bluetooth® Wireless Technology streaming audio may not be supported in some mobile phones.
- When returning to Bluetooth® Wireless Technology Audio mode after ending a call, the mode may not automatically restart in some mobile phones.
- Receiving an incoming call or making an outgoing call whilst playing Bluetooth® Wireless Technology Audio may result in audio interference.

Media Mode

Change Mode: [MEDIA] button

- Each time the button is pressed, the media mode popup will be displayed or closed.
- The media mode popup will not be displayed when [SETUP] button ► [Display] ► [Mode popup] is turned [Off].

You can select a menu in the mode popup by using the [1] ~ [6] (Preset) buttons or **TUNE** knob.

- If media device(USB, AUX) is connected, then it will automatically operate. Once it is disconnected, the previous mode will be restored.
- The Audio/BT Audio*/AUX volume can also be controlled.

* if equipped

Repeat: [1 RPT] button

- Repeats the current song or repeats all songs within the current folder.

- Disc CD*, iPod® mode: Repeat Song → Repeat Off.
- Disc MP3*, USB mode: Repeat Song → Repeat Folder → Off.

* if equipped

Shuffle: [2 SHFL] button

- Plays all songs within the current folder(category) or play all songs in random order.
- Disc CD*, iPod® mode: Shuffle All → Shuffle Off.
- Disc MP3*, USB mode: Shuffle Folder → Shuffle All → Off.

* if equipped

Change Song/File: [SEEK/TRACK] button

[v TRACK]/[v SEEK/TRACK] button

- Pressing the button: Plays the current song from the beginning. If the [v TRACK]/[v SEEK/TRACK] button is pressed again within 2 seconds, the previous song is played.
- Pressing and holding the button: Rewinds the song.

[SEEK ^]/[SEEK/TRACK ^] button

- Pressing the button: Plays the next song.
- Pressing and holding the button: Fast-forwards the song.

* NOTICE

- AUX and BT Audio* don't support Rewind/Fast-forward feature.
- Changing the previous/next song may not be supported in some Bluetooth® devices.

* if equipped

Search Song: TUNE knob

- Turning **TUNE** knob: Searches for songs(files).
- Pressing **TUNE** knob: Plays selected song(file).

* NOTICE

- BT Audio*, iPod® and AUX don't support playlist feature.
- whilst BT Audio* is playing, pressing the **TUNE** knob plays and pauses the current song.

* if equipped

Search Folder: [FLDR] button

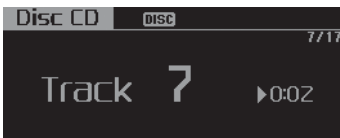
- Searches the previous/next folder. (Disc MP3*, USB)

* if equipped

* NOTICE

If a folder is selected by pressing the **TUNE** knob, the first file within the selected folder will be played.

Disc CD (Type B-5,Type B-6)



Displays Menu Popup when pressing the **[MENU]** button.

List

Moves to the list screen.

Repeat

Repeats the current song. Press it again to turn off.

Shuffle

Randomly plays all songs. Press it again to turn off.

Scan

Scans the beginning parts of all songs. (approximately 10 seconds per file)

Information

Displays information of the current song.

Sound Settings

Moves to Sound Settings.

Disc MP3 (Type B-5,Type B-6)/USB



Displays Menu Popup when pressing the **[MENU]** button.

List

Moves to the list screen.

Repeat

Repeats the current song. Press it again to turn off.

Repeat Folder

Repeats songs within the current folder. Press it again to turn off.

Shuffle Folder

Randomly plays songs within the current folder. Press it again to turn off.

Shuffle

Randomly plays all songs. Press it again to turn off.

Scan

Scans the beginning parts of all songs. (approximately 10 seconds per file)

Information

Displays information of the current song.

Sound Settings

Moves to Sound Settings.

iPod®



Displays Menu Popup when pressing the **[MENU]** button.

List

Moves to the list screen.

Repeat

Repeats the current song. Press it again to turn off.

Shuffle

Plays all songs within the currently playing category in random order. Press it again to turn off.

Information

Displays information of the current song.

Sound Settings

Moves to Sound Settings.

Bluetooth® (BT) Audio (if equipped)



Displays Menu Popup when pressing the **[MENU]** button.

Sound Settings

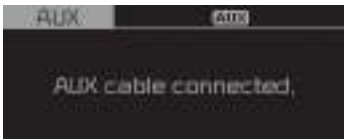
Moves to Sound Settings.

* NOTICE

- Audio may not automatically start playing in some Bluetooth® devices. If the music in the Bluetooth® device is not played after changing to audio streaming mode, press the **TUNE** knob. Check if the music is playing in the Bluetooth® device after changing to audio streaming mode.
- Audio streaming may not be supported for some Bluetooth® devices.
- If Bluetooth® device is disconnected, BT Audio* is ended.
- Bluetooth® connection is required to use BT Audio*. Refer to the Bluetooth® manual for more information.

* if equipped

AUX



Displays Menu Popup when pressing the **[MENU]** button.

Sound Settings

Moves to Sound Settings.

*** NOTICE**

- AUX mode can be used only when an external audio player has been connected.
- If only a cable is connected to the AUX without an external device, the mode will be changed to AUX, but noise may occur. When an external device is not being used, remove the connector jack.
- When the external device power is connected to the power jack, playing the external device may output noise. In such cases, disconnect the power connection before use.

Phone (if equipped)

*** NOTICE**

Using Bluetooth® (BT) Phone

What is Bluetooth® Wireless Technology?

- Bluetooth® Wireless Technology refers to a short-distance wireless networking technology which uses a 2.45GHz frequency to connect various devices within a certain distance.

- Supported within PCs, external devices, Bluetooth® phones, PDAs, various electronic devices, and automotive environments, Bluetooth® Wireless Technology to be transmitted at high speeds without having to use a connector cable.
- Bluetooth® Handsfree refers to a device which allows the user to conveniently make phone calls with Bluetooth® devices through the Multimedia system.
- The Bluetooth® Handsfree feature may not be supported in some Bluetooth® devices. For Bluetooth® supporting devices details and compatibility, visit <http://kiaeuropa.nextgen-technology.net>

⚠ WARNING

Distracted Driving

- Focus on the road whilst driving. The driver's primary responsibility is in the safe and legal operation of the vehicle. Drivers should not use any hand held devices or other equipment or vehicle systems that distract the driver during vehicle operation.
- Do not stare at the multimedia screen for long periods of time whilst driving. Staring at the screen for prolonged periods of time can lead to traffic accidents and can result in personal injuries.

⚠ CAUTION

For Safe Driving

- Bluetooth® is a feature that enables drivers to make handsfree calls. Connecting the head unit with a Bluetooth® phone allows the user to

conveniently make calls, receive calls, and manage the phonebook. Before using Bluetooth® Wireless Technology, carefully read the contents of this user's manual.

- Excessive use or operations whilst driving may lead to negligent driving practices and be the cause of accidents. Do not operate the device excessively whilst driving.
- Viewing the screen for prolonged periods of time is dangerous and may lead to accidents. When driving, view the screen only for short periods of time.
- Pairing Bluetooth® devices and use of other Bluetooth® features are not supported when the vehicle is in motion. For safety, please first park your vehicle.

CAUTION

For Connecting a Bluetooth® Phone

- Before connecting the head unit with the Bluetooth® device, check to see that the mobile device supports Bluetooth® features.
- Even if the mobile device supports Bluetooth® Wireless Technology, the device will not be found during device searches if the device has been set to hidden state or the Bluetooth® power is turned off. Disable the hidden state or turn on the Bluetooth® power prior to searching/connecting with the head unit.
- If a Bluetooth® Wireless Technology device becomes disconnected due to being out of communication range, turning the device OFF, or a Bluetooth® Wireless Technology commu-

nication error, corresponding Bluetooth® Wireless Technology devices are automatically searched and reconnected.

- If you do not want automatic connection with your Bluetooth® device, turn the Bluetooth® feature off in the Bluetooth® device.
- Only one Bluetooth® Wireless Technology device can be connected at a time.
- Bluetooth® connection may become intermittently disconnected in some Bluetooth® devices. Follow these steps to try again.
 1. Turn the Bluetooth® function within the Bluetooth® device OFF/ON and try again.
 2. Turn the Bluetooth device power OFF/ON and try again.
 3. Completely remove the Bluetooth® device battery, reboot, and then again.
 4. Reboot the Multimedia System and try again.
 5. Delete all paired devices from both of Bluetooth® device and Head Unit sides and then try again.

CAUTION

Upon Using Bluetooth® Phone

- If the Bluetooth® device is not connected, it is not possible to enter Phone mode. After connecting your Bluetooth® device to your car, use the Bluetooth® features.
- You will not be able to use the hands-free feature when your phone is outside of the mobile service area (e.g. in

- a tunnel, in a underground, in a mountainous area, etc.).
- If the mobile 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 Bluetooth® device near or inside metallic objects, otherwise communications with Bluetooth® Wireless Technology system or mobile service stations can be disturbed.
 - Placing the Infotainment System within an electromagnetic environment may result in noise interference.
 - Some Bluetooth® devices may cause interference noise or malfunction to Infotainment System. In this case, store the device in a different location may resolve the condition.
 - Whilst a device is connected through Bluetooth® Wireless Technology, your device may discharge quicker than usual for additional Bluetooth® Wireless Technology-related operations.
 - The handsfree call volume and quality may differ depending on the Bluetooth® device.
 - If Connection Priority is set upon vehicle ignition (IGN/ACC ON), the Bluetooth® Wireless Technology device will be automatically connected. Even if you are outside, the Bluetooth® Wireless Technology device will be automatically connected once you are in the vicinity of the vehicle. If you do not want to automatically connect your Bluetooth® Wireless Technology device, turn off the Bluetooth® Wireless Technology feature in your Bluetooth® device.

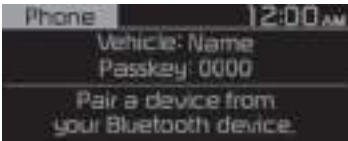
- In some Bluetooth® devices, starting the ignition whilst talking through Bluetooth® Wireless Technology enabled handsfree call will result in the call becoming disconnected due to car handsfree call transfer. If you use your phone outside the vehicle, turn off the Bluetooth® Wireless Technology feature in your phone.

Bluetooth® Connection

Before you can use the Bluetooth® feature, you must first pair/connect your Bluetooth® device to your car.

Pairing a New Device

Press the **[PHONE]** button in the head unit or **[CALL]** button in the steering wheel remote control.



- In your Bluetooth® device,
1. Pair your car after your Bluetooth® device detects the Bluetooth® device.
 2. Enter the passkey(0000) or accept the authorisation popup.
 3. Connect Bluetooth®.

* NOTICE

- Up to 5 Bluetooth® devices can be paired.
- The default passkey is 0000.
- During a Bluetooth® device connection, another device cannot be paired.
- The Vehicle Name above is an example. Check the actual information on the product.

- Pairing and connecting a Bluetooth® Wireless Technology enabled Bluetooth® device will work only when the Bluetooth® Wireless Technology option within your Bluetooth® device has been turned on. (Methods of turning on the Bluetooth® Wireless Technology enabled feature may differ depending on the Bluetooth® device.)
- After pairing is complete, a contacts download request is sent to the Bluetooth® device. Some Bluetooth® devices may require confirmation upon receiving a download request. Ensure your Bluetooth® device accepts the connection. Refer to your phone's user manual for additional information regarding phone pairing and connections.

Connecting Bluetooth® Devices

Press the **[PHONE]** button in the head unit or **[CALL]** button in the steering wheel remote control ► Select the name of the device to connect ► Connect Bluetooth®.

- Connects the Bluetooth® devices that you add.



* NOTICE

- Only one Bluetooth® device can be connected at a time.
- Bluetooth® Wireless Technology features supported within the vehicle are as follows. Some features may not be

supported depending on your Bluetooth® Wireless Technology device.

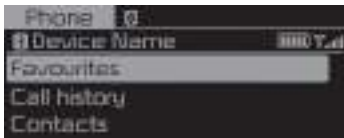
- Outgoing/Incoming Handsfree calls
- Operations during a call: Switch to Private, Switch to call waiting, MIC on/off
- Downloading Call History
- Downloading Contacts
- Bluetooth® Wireless Technology device Auto Connection
- Bluetooth® Audio Streaming

Bluetooth® Phone

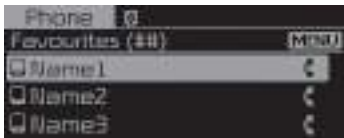
Favourites(Favorites)

Press the **[PHONE]** button ► Select **[Favourites(Favorites)]**.

- Displays Phone Menu screen.
- The connected device name is displayed in the top of the display.



- : Call signal strength indicator.
- : Battery level of the Bluetooth® devices connected.
- Lists the phone numbers saved as Favorites. Select from the list to dial the number.



Displays Menu Popup when pressing the **[MENU]** button.

- Add new favourites(Add New Favorites): Adds a phone number to Favorites.
- Delete items: Deletes numbers that you select from Favorites.
- Delete all: Deletes all of the numbers from Favorites.

*** NOTICE**

- Up to 20 favorites can be saved in favorites of each device.
- Downloading favorites in your Bluetooth® device does not be supported.
- To save favorite, contacts should be downloaded.
- Contact saved in favorites will not be automatically updated if the contact has been updated in the phone. To update Favorites, delete the favorite and create a new favorite.

Call history

Press the **[PHONE]** button ► Select [Call history].

- Displays all of your call history. Select from the list to dial the number.



Displays Menu Popup when pressing the **[MENU]** button.

- Download: Downloads the call history information from your Bluetooth® device.
- All calls: Lists the all call history.
- Dialed calls: Lists the calls that you made.
- Received calls: Lists the calls that you have received.

- Missed calls: Lists the calls you missed.

*** NOTICE**

- Call history may not be saved in the call history list in some Bluetooth® devices.
- Calls from restricted ID's are not saved in the call history list.
- Up to 50 calls can be added in each Dialed Calls/Received Calls/Missed Calls list.
- The durations of each dialed/received call are not displayed in your car's Call History list.
- Whilst the call history download is in progress, the status bar displays an icon (↕).
- If the call history download is turned off on the Bluetooth® device, the call history download will fail.
- Some devices require a device authentication for downloading your call history. If download fails, check if the Bluetooth® settings or display status are normal.

Contacts

Press the **[PHONE]** button ► Select [Contacts].

- Displays the list of Contacts. Select from the list to dial the number.



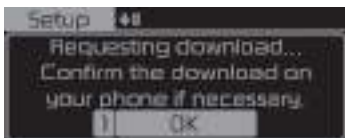
Displays Menu Popup when pressing the **[MENU]** button.

- Download: Downloads contacts from your Bluetooth® device.

Requesting Download

Some devices require a device authentication for downloading your call history and contacts.

If download fails, check the Bluetooth® Wireless Technology device settings or the screen state.



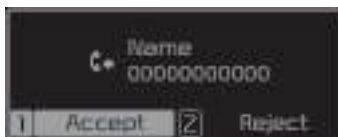
* NOTICE

- Up to 2000 phone numbers can be downloaded from a single, paired Bluetooth® device.
- You cannot edit or delete downloaded phone numbers from your car.
- Contacts can be viewed only when the Bluetooth® device is connected.
- Even if the Bluetooth® device is disconnected, the downloaded data will remain. (Note that deleting a paired device will also delete all downloaded Contacts and Call History data)
- Downloaded phone numbers may be lost depending on the condition of the head unit. Keep your important data in a safe place.
- The status bar displays a (📶) whilst downloading contacts.
- The download will not be available if the contacts download function is turned off on your Bluetooth® device.
- Phone contact names should be saved in English or they may not be displayed correctly.
- The time of contacts/call history download may differ depending on the Bluetooth® devices.

- Some devices require a device authentication for downloading your contacts. If download fails, check your phone screen and confirm the download if necessary.

Accept/Reject Call

If there is an incoming call, a popup message will appear.



- To answer the incoming call, select [Accept] on the screen or press the **[CALL]** button on the steering remote control.
- To reject the call, select [Reject] on the screen or press the **[END]** button on the steering wheel control.

* NOTICE

In some Bluetooth® devices, the caller's number may not be displayed, and the Reject feature may not be supported.

Using the Menu During a Phone Call

When making a call, you can use the following menu items.



1. Private: Switches a voice call from the car Hands-free to the Bluetooth® device.
2. End: Ends a call.

Displays Menu Popup when pressing the **[MENU]** button.

- Microphone Volume(Outgoing Volume): Displays the Mic Volume settings. You can adjust the in-call volume that the other party hears (level 1 - 5).

* NOTICE

- Up to 2000 phone numbers can be downloaded from a single, paired Bluetooth® device.
- If the caller's number is listed in Contacts, the caller's name will be displayed. Otherwise, only the number will be displayed. In some Bluetooth® devices, the phone number may not be displayed.
- In some Bluetooth® devices, the Use Private feature may not be supported.
- In some Bluetooth® devices, the Switch feature may not be supported.
- The phone number may not be properly displayed in some Bluetooth® devices.
- During a phone call on a Bluetooth® Handsfree, you cannot access other modes, such as Radio and Setup.
- Depending on handset types, the in-call volume the other party hears may differ. If the other party hears your voice too low or too loud, adjust the mic volume.

Phone Settings

Press the **[PHONE]** button ► Select [Phone settings].

- Moves to a screen of Phone Settings. Refer to [Setup] ► [Phone settings] manual for more information.

Setup

Display

Press the **[SETUP]** button ► Select [Display].

- Song information(Media Display): When playing an MP3 file, select the desired display info from [Folder/File] or [Artist/Title/Album].
- Mode popup: During [On] state, press the **[RADIO]** or **[MEDIA]** button to display the mode change popup.
- Scroll text(Text Scroll)*: If MP3 file name is too long to display, the file name is scrolled from right to left.

* if equipped

Sound

Press the **[SETUP]** button ► Select [Sound].

- Balance: Selects the sound balance.
- Equaliser(Tone): Selects the sound equaliser(tone).
- Speed dependent vol.: Controls the volume level automatically according to the speed of the vehicle.

Phone (if equipped)

Add new device

Press the **[SETUP]** button ► Select[Phone] ► Select [Add new device].

- The following steps are the same as those described in the section [Pairing a New Device] on the previous page.

Connect/Disconnect Device

Press the **[SETUP]** button ► Select[Phone] ► Select [Paired devices].

- Displays the paired Bluetooth® device list.
- From the paired device list, select the device you want to connect or disconnect.

* NOTICE

- Displays the icons when Bluetooth® device is connected.
 : An icon appears when you make a Bluetooth® Audio connection.
 : An icon appears when you make a Bluetooth® Handsfree connection.
- Only one Bluetooth® device can be connected at a time.
- Bluetooth® Handsfree and Bluetooth® Audio functions are supported. Handsfree and audiosupported devices, such as a Bluetooth® smart-phone or audio, will function normally.
- If the system is not stable due to a vehicle-Bluetooth® device communication error, delete the paired device on each device and pair/connect the Bluetooth® device again.

Delete devices

Press the **[SETUP]** button ► Select [Phone] ► Select [Delete devices].

- Displays the paired Bluetooth® device list.
- When selecting from the list, the device is deleted.

* NOTICE

- When you delete a paired device, the Call History and Contacts stored in the head unit are also deleted.

- To re-use a deleted device, you must pair the device again.

Auto Connection priority

Press the **[SETUP]** button ► Select [Phone] ► Select [Connection priority].

- Select the device to want to set the connection priority of paired devices.
- If "None" is chosen, the Bluetooth® system will try to connect to the last connected device, then to all paired devices.

* NOTICE

- When the engine is running, the selected Bluetooth® device is automatically connected. If you fail to connect the selected device, the previously-connected device is automatically connected, and if it also fails, then it tries to connect all paired devices sequentially.
- Depending on auto connection priority, connection to a device may take time.
- If a Bluetooth® Wireless Technology device becomes disconnected due to being out of communication range, turning the device OFF, or a Bluetooth® Wireless Technology communication error, corresponding Bluetooth® Wireless Technology devices are automatically searched and reconnected.
- Even if you are outside, the Bluetooth® Wireless Technology device will be automatically connected once you are in the vicinity of the vehicle. If you do not want to automatically connect your Bluetooth® Wireless Technology device, turn off the Bluetooth®

Wireless Technology feature in your Bluetooth® device.

- In some Bluetooth® devices, starting the ignition whilst talking through Bluetooth® Wireless Technology enabled handsfree call will result in the call becoming disconnected due to car handsfree call transfer. If you use your phone outside the vehicle, turn off the Bluetooth® Wireless Technology feature in your phone.
-

Language

Press the **[SETUP]** button ► Select [Language].

- Changes the display language.

Display Off

Press the **[SETUP]** button ► Select [Display off].

- Audio operation is maintained and only the screen will be turned Off. In the Screen Off state, press any button to turn the Screen On again.

Declaration of Conformity

CE for EU

Declaration of Conformity

We, manufacturers, hereby declare that the product

Model: AC00000000
 Address: Model AC00000000/AC00000000
 Type: Car Audio System

satisfies all the technical regulations applicable to the product within the scope of Council Directive 2014/53/EU:

ENEC: EN 50119-1:2018
EN 50119-2:2017/AM1:2017

All essential radio test rules have been carried out.

Testing laboratory: HCT CO., LTD.

Tel: South Korea 070-899-0000, Hwaseong-myeon, Gyeonggi-do, Korea 08181
 Tel: +82-31-940-8991 / Fax: +82-31-940-8992

Authorized representative of manufacturer:

HILINKA MOTOR CO., LTD.
 201, TONGRONG-ro, Ganghwa-gun, Gangwon-do, Korea
 Tel: +82-31-290-5098 / Fax: +82-31-896-1198

This declaration is issued under the sole responsibility of the manufacturer and, if applicable, its authorized Representative, and is marked in accordance with the CE marking directive 2014/53/EU.

Point of contact:

HILINKA MOTOR CO., LTD. Tel: +82-31-290-5098 / Fax: +82-31-896-1198

Model: Model AC00000000



刘春彦

 I-S. H. Chae
 Director

Declaration of Conformity

We, undersigned, hereby declare that the enclosed

MAGLACRICHESSE
ADDRESS: MAGLACRICHESSE / ACBCHESSE.BRONZE / MAGLACHESSE
Type: Cric Auto System

satisfies all the technical requirements applicable to the products within the scope of Council Directive 2000/18/EC, 2004/18/EC and 98/91/EC.

[illegible]

© 2005 Blackwell Publishing Ltd, *Journal of Internal Medicine* 258: 103–110

Testing laboratory: HOTTOS, LTD.

21. <http://www.fishbase.org/Species/MarineFish/Species/Species.cfm?ID=1011>
 22. <http://www.fishbase.org/Species/MarineFish/Species/Species.cfm?ID=1011>

Authorised representative of manufacturer

TRAVELERS MOTOR CO., LTD.
203, Denzomachi, Shinjuku-ku, Tokyo 162-8777, Japan
Tel. 03-33-003-0000, Fax 03-33-000-1388

This declaration is required under the sole responsibility of the manufacturer and, if applicable, his authorized Representative, and is marked in accordance with the CE marking directive 2006/95/EC.

Product will be released

HELEN & MICHELE Co., Ltd. Tel. 82 22 080 0001 Fax. 82 22 080 0788

Environ Monit Assess (2008) 141:179–189



최승연

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Declaration of Conformity

We, manufacturer, hereby declare that the product:

Model: A511SHOE
Address: Hsinchu, A511SHOE
S/N: 000000000000

satisfies all the technical regulations applicable to the product within the scope of Council Directive 2004/108/EC, 2004/108/EC and 2006/95/EC.

Radio: EN 301 221 V 1.0.1
EMC: EN 301 221 V 1.0.1
EN 301 221 V 1.0.1
EN 301 221 V 1.0.1
EN 301 221 V 1.0.1
EN 301 221 V 1.0.1

All essential radio test criteria have been satisfied.

Testing laboratory: HCT CO., LTD.

Tel: 886-3-240-0098 / Fax: 886-3-240-0098
E-mail: hct@hct.com.tw

Authorized representative or manufacturer:

HYUNDAI MOTOR CO., LTD.
201, Teheran-ro, Gyeonggi-do, Seoul 151-877, Korea
Tel: 82-2-240-0098 / Fax: 82-2-240-0098

This declaration is issued under the full responsibility of the manufacturer and, if applicable, its authorized Representative, and is marked in accordance with the CE marking directive 2006/95/EC.

Point of contact:

HYUNDAI MOTOR Co., Ltd. Tel: 82-2-240-0098 / Fax: 82-2-240-0098

Signed: Hsinchu, 14. 01. 2018



劉金龍

V.S. H. 0108

Director

NCC for Taiwan

根據交通部低功率電波輻射性電機管理辦法 規定：	
第十二條	經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。
第十四條	低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾後方得繼續使用。 前項合法通信，指依電信法規定作業之無線電通信。 低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

ANATEL for Brazil

"Este produto está homologado pela ANATEL, de acordo com os procedimentos regulamentados pela resolução nº . 242/2000 e atende aos requisitos técnicos e aplicados"

Para maiores informações, consulte o site da ANATEL www.anatel.gov.br



Este equipamento opera em caráter secundário, isto é, não tem direito a proteção contra interferência prejudicial, mesmo de estações do mesmo tipo, e não pode causar interferência a sistemas operando em caráter primário.

"Este produto está homologado pela ANATEL, de acordo com os procedimentos regulamentados pela resolução nº . 242/2000 e atende aos requisitos técnicos e aplicados"

Para maiores informações, consulte o site da ANATEL www.anatel.gov.br



Este equipamento opera em caráter secundário, isto é, não tem direito a proteção contra interferência prejudicial, mesmo de estações do mesmo tipo, e não pode causar interferência a sistemas operando em caráter primário.

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6 Driving your vehicle

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Driving your vehicle

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 colourless, odourless 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 authorised Kia 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/trunk 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 windscreen are kept clear of snow, ice, leaves or other obstructions.

Before driving

Before entering vehicle

- Be sure that all windows, outside mirror(s), and outside lights are clean.
- Check the condition of the tyres.
- 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, brake fluid, and washer fluid should be checked on a regular basis, with the exact interval depending on the fluid. Refer to "Maintenance services" on page 8-6 for further details.

WARNING

Driving whilst distracted can result in a loss of vehicle control, that may lead to an accident, severe personal injury, or death. The driver's primary responsibility is in the safe and legal operation of a vehicle. Any use of handheld devices, other equipment, or vehicle systems that take the driver's eyes, attention, and focus away from the safe operation of a vehicle are not permissible by law. These should never be used during the 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

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 judgement.

You are much more likely to have a serious accident if you drink 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.

Driving whilst under the influence of drugs is as dangerous or more dangerous than driving drunk.

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.

Key positions

Ignition switch position

LOCK



The steering wheel locks to protect against theft. The ignition key can be removed only in 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 whilst 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 whilst the vehicle is moving. This would result in loss of directional control and braking function, which could cause an immediate 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, set the parking brake fully and shut the engine off. Unexpected and sudden vehicle movement may occur if these precautions are not taken.
- Never reach for the ignition switch, or any other controls through the steering wheel whilst 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 whilst 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 (if equipped).
- 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.

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 the driving.

1. Make sure the parking brake is applied.
2. Manual Transmission - Depress the clutch pedal fully and shift the transmission into the Neutral. Keep the clutch pedal depressed whilst cranking the engine.
3. Turn the ignition switch ON position to pre-heat the engine. Then the glow indicator light will illuminate.

As for manual transmission vehicles, both the clutch pedal and brake pedal should be depressed until the engine is fully started. If the clutch pedal is released before the engine is fully started, the engine may not start.

Glow indicator light



4. If the glow indicator light goes out, turn the ignition switch to START 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 30 seconds, and then to the ON position, in order to pre-heat again.

CAUTION

Do not keep the starter engaged for more than 10 seconds. If the engine stalls or falters in starting, wait 30 seconds before reengaging the starter; otherwise you may damage it.

If the engine still does not start, call a professional workshop. Kia recommends to call an authorised Kia dealer/service partner.

NOTICE

Whether the engine is warm or cold, it should be started without first depressing the accelerator pedal. However, if the engine is unusually difficult to restart when it is warm (fails to start after repeated attempts without depressing the accelerator pedal), start it whilst depressing the accelerator pedal about halfway.

Starting the cold engine (if equipped)



1. If the glow indicator light goes out, start the engine.
2. Pull the warm-up switch out and turn it clockwise after starting the engine.
3. Turn the warm-up switch OFF by rotating it counterclockwise and depressing it in place if the engine temperature gauge moves slightly.

If you do not use the warm-up switch, your vehicle may have the excessive fuel consumption and be damaged in the emission system.

* NOTICE

If you drive with turning the warmup switch ON, the fuel consumption will be increased excessively. Also, this could the failure of engine.

Starting and stopping the engine for turbo charger 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 turbo charger unit.
2. After high speed or extended driving, requiring a heavy engine load, run the

engine on idle condition about 1 minute before turning it off. This idle time will allow the turbo charger to cool prior to shutting the engine off.

⚠ WARNING

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 turbo charger unit.

How to stop engine

1. Bring the car to a complete stop and keep both the clutch pedal and brake pedal pressed.
2. With both the clutch and brake pedals kept pressed, engage the gearshift at the N position.

Manual Transmission

Manual transmission operation

Type A



Type A



⇒ The shift lever can be moved without pushing the button (1).

➡ The button (1) must be pushed whilst moving the shift lever.

The manual transmission has 5 (or 6) forward gears.

Press the clutch pedal down fully whilst shifting, then release it slowly.

If your vehicle is equipped with an ignition lock switch, the engine will not start when starting the engine without depressing the clutch pedal. (if equipped)

A special safety feature prevents inadvertent shifting from 5 (Type A) to R (Reverse). The gearshift lever must be returned to the neutral position before shifting into R (Reverse).

Make sure the vehicle is completely stopped before shifting into R (Reverse). Never operate the engine with the tachometer (rpm) in the red zone.

* NOTICE

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, whilst waiting for a traffic light, etc.

⚠ CAUTION

- When shifting into 5th or 6th gear, press the shift lever to the right. Otherwise, the engine could be damaged by accidentally engaging 3rd or 4th gear.
- 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.
- When downshifting from fifth gear to fourth gear, caution should be taken not to inadvertently press the gear 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 redzone. Such over-revving of the engine may possibly cause engine damage.

⚠ WARNING**Manual transmission**

- 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) gear on a downhill ground. 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 a ignition lock switch, it may move and cause a serious accident when starting the engine without depressing the clutch pedal whilst the parking brake is released and the shift lever not in the N (Neutral) 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, whilst waiting for a traffic light, etc.
- 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.

Downshifting

When you must slow down in heavy traffic or whilst driving up steep hills, downshift before the engine starts to "labour". Downshifting reduces the chance of stalling and gives better acceleration when you again need to increase your

speed. When the vehicle is travelling down steep hills, downshifting helps maintain safe speed and prolongs brake life.

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 whilst driving. Do not rest your foot on the clutch pedal whilst 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.

⚠ WARNING**Using the clutch**

Depress the clutch pedal as far as possible. Be aware not to apply the pedal again before it returns to the normal position.

If the pedal is repeatedly depressed before returning to its normal position, the clutch system might be damaged.

Do not overload the vehicle. Starting or driving a vehicle in this situation generates too much frictional heat to the clutch disk which might cause damage to the clutch cover and disk.

When starting the vehicle or driving backwards, releasing the clutch pedal too soon after shifting the lever might turn off the engine and lead to an accident.

⚠ CAUTION

- If half-clutch ^{*1)} driving style is adopted, or driver's foot is placed on

the pedal whilst the driving, the clutch may be damaged or worn out prematurely.

- Whilst parking on a steep grade, do not use half clutch method to park the vehicle. It will cause premature wear of the clutch disc.
- Whilst driving at fast speed, do not abruptly shift to low speed.
It may lead to engine and transmission damage.

^{*1)} Half clutch

A condition where the clutch is half-engaged and sliding. It may occur when the clutch pedal is partially depressed (not fully depressed), or vehicle power is transferred to the clutch before the pedal is fully let go.

⚠ WARNING

- When starting a fully stopped vehicle, refrain to start in 2nd gear. When starting in 2nd gear, abnormal clutch disc friction heat may occur and result in clutch cover and clutch disc damage.
- When the vehicle is in motion, please refrain from using half clutch. The use of half clutch whilst the vehicle is in motion may result in early clutch disc wear, abnormal vibration or noise.
- The clutch pedal should be depressed fully for any operation. When letting go of the depressed pedal, make sure not to depress the pedal again before the pedal goes back to its initial position. If such unintended re-depressing occurs, the clutch system may be damaged.

Limited slip differential (for (Diesel) 2.7 VGT) (if equipped)

⚠ WARNING

To avoid injury, never run the engine with one wheel off the ground, such as when changing a tyre.

A limited slip differential, if equipped, is for the rear wheel differential only. The features of this limited slip differential are described below;

Just as with 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 limited slip 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.

Locking differential (for (Diesel) 2.5 VGT) (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.

* NOTICE

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.

* NOTICE

Usually a locking differential will operate and release automatically but occasionally it may not release automatically.

At this time you will feel the tyre is dragged when you are driving or cornering. You can release it manually by slightly turning the steering wheel right and left whilst the vehicle is moving slowly.

⚠ CAUTION

- Never start the engine with the gear-shift lever placed in the forward or reverse whilst 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.

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.

* NOTICE

- When stepping on the brake pedal under a certain driving or weather condition, you may witness your car make a sound of squealing or some other noises. This is not a brake malfunction but a normal phenomenon.
- When driving on the road to which deicing chemicals are applied, the vehicle may witness noises from the brake or abnormal abrasion of tyres because of such deicing chemicals. You should operate brake additionally so that you would be able to remove the deicing chemicals on the brake disk and pad under a safe traffic condition.

⚠ 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. Always test your brakes in this fashion after driving through deep water. To dry the brakes, apply them lightly whilst 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 whilst 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 whilst 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.

⚠ CAUTION

Do not operate the parking brake whilst the vehicle is moving except in an emergency situation. It could damage the vehicle system and make endanger driving safety.

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 brakes or rear brakes (if equipped). You may hear this sound come and go or it may occur whenever you depress the brake pedal.

⚠ CAUTION

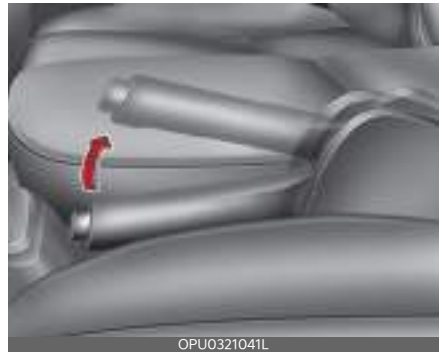
- To avoid costly brake repairs, do not continue to drive with worn brake pads.
- Always replace the front or rear brake pads as pairs.

⚠ WARNING**Brake wear**

This brake wear warning sound means your vehicle needs service. If you ignore this audible warning, you will eventually lose braking performance, which could lead to a serious accident.

Rear drum brakes

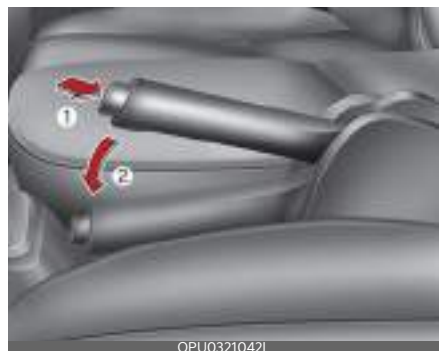
Your rear drum brakes do not have wear indicators. Therefore, have the rear brake linings inspected if you hear a rear brake rubbing noise. Also have your rear brakes inspected each time you change or rotate your tyres and when you have the front brakes replaced.

Parking brake

To apply the parking brake, pull the parking brake handle fully and firmly upward whilst applying the service brake.

⚠ CAUTION

Driving with the parking brake applied will cause excessive brake pad/lining and brake rotor wear.



To release the parking brake, pull the handle up slightly and push the release button, then lower the handle to the released position whilst holding the button in.

WARNING

Parking brake

- 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 shift lever is securely positioned in 1st (First) gear or R (Reverse) for manual transmission equipped vehicles.
- Never allow a person who is unfamiliar with the vehicle or children to touch the parking brake. If the parking brake is released unintentionally, serious injury may occur.



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, 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 whilst operating the vehicle and only continue to drive the

vehicle until you can reach a safe location or repair shop.

Parking on kerbed streets

- When parking your vehicle on an uphill grade, park as close to the kerb as possible and turn the front wheels away from the kerb so that the front wheels will contact the kerb if the vehicle moves backward.
- When parking your vehicle on a downhill grade, park as close to the kerb as possible and turn the front wheels toward the kerb so that the front wheels will contact the kerb if the vehicle moves forward.

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 litre (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:

- Avoid lengthy warm-up idling. Once the engine is running smoothly, begin driving. Remember, engine warm-up may take a little longer on cold days.
- Save fuel by accelerating slowly after stopping.
- Keep the engine in tune and follow the recommended periodic maintenance schedule. This will increase the life of all parts and lower your operating costs.
- Do not use the air conditioner unnecessarily.
- Slow down when driving on rough roads.
- For longer tyre life and better fuel economy, always keep the tyres inflated to the recommended pressures.
- Maintain a safe distance from other vehicles to avoid sudden stops. This will reduce wear on brake linings and pads. Driving in such a way will also save fuel because extra fuel is required to accelerate back to driving speed.
- Do not carry unnecessary weight in the vehicle.
- Do not rest your foot on the brake pedal whilst driving. This can cause needless wear, possible damage to the brakes, and poor fuel economy.
- Improper wheel alignment results in faster tyre wear and lower fuel economy.
- 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, have the system serviced by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

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 without the engine running. Instead, keep the engine on and downshift to an appropriate gear for engine braking effect.

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 movements in braking or steering.
- When braking, 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, tyre 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 1 (First) and R (Reverse). 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.

CAUTION

Prolonged rocking may cause engine over-heating, transmission damage or failure, and tyre damage.

WARNING

Spinning tyres

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 tyre to overheat, explode and injure bystanders.

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 windscreen wiping equipment in good shape. Replace your windscreen wiper blades when they show signs of streaking or missing areas on the windscreen.
 - If your tyres 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 tyres 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 whilst driving until normal braking operation returns.
- de-icer, a bag of sand or salt, flares, a small shovel and jumper cables.
 - Make sure you have sufficient ethylene-glycol coolant in the radiator.
 - Check the battery condition and cables. Cold temperatures reduce the capacity of any battery, so it must be in excellent condition to provide enough winter starting power.
 - Make sure the engine oil viscosity is suitable for cold weather.
 - Check the ignition system for loose connections and damage.
 - Use antifreeze-formulated windscreen washer fluid. (Do not use engine coolant antifreeze.)
 - Do not use the parking brake if it might freeze. When parking, shift to 1 (First) or R (Reverse) and block the rear wheels.

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 whilst the vehicle is moving slowly.

Driving off-road

Drive carefully off-road because your vehicle may be damaged by rocks of roots or trees. Become familiar with the off-road conditions where you are going to drive before you begin driving.

Winter driving

- We recommend that you carry emergency equipment, including tyre chains, a window scraper, windscreen

Snow tyres

If you mount snow tyres on your Kia, make sure they are radial tyres of the same size and load range as the original tyres. Mount snow tyres on all four wheels to balance your vehicle's handling in all weather conditions. Keep in mind that the traction provided by snow tyres on dry roads may not be as high as your vehicle's original equipment tyres. You should drive cautiously even when the roads are clear. Check with the tyre dealer for maximum speed recommendations.

WARNING

Snow tyre size

Snow tyres should be equivalent in size and type to the vehicle's standard tyres. Otherwise, the safety and handling of your vehicle may be adversely affected.

Do not install studded tyres without first checking local, state and municipal regulations for possible restrictions against their use.

Tyre chains

Since the sidewalls of radial tyres are thinner, they can be damaged by mounting some types of snow chains on them. Therefore, the use of snow tyres is recommended instead of snow chains. Do not mount tyre 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 manufacturer's warranty.

Install them only on the rear tyres.

⚠ CAUTION

- Make sure the snow chains are the correct size and type for your tyres. 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 tyre. 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 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.

⚠ CAUTION

- 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.

Drive your vehicle when water vapour condenses and accumulates inside the exhaust pipes

When the vehicle is stopped for a long time in winter whilst the engine is running, water vapour may condense and accumulate inside the exhaust pipes. Water in the exhaust pipes may cause noise, etc., but it is drained driving at medium to high speed.

Trailer Towing - for europe only (For 1 Ton only)

WARNING

Towing a trailer

If you don't use the correct equipment and drive properly, you can lose control when you pull a trailer. For example, if the trailer is too heavy, the brakes may not work well - or even at all. You and your passengers could be seriously or fatally injured. Pull a trailer only if you have followed all the steps in this section.

WARNING

Weight limits

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.

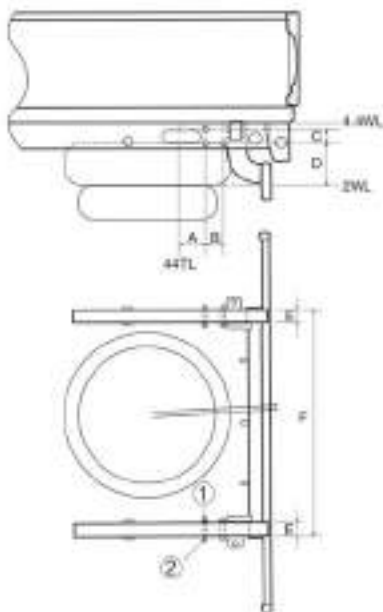
NOTICE

For Europe

- The technically permissible maximum load on the rear axle(s) may be exceeded by not more than 15 % and the technically permissible maximum laden mass of the vehicle may be exceeded by not more than 10 % or 100 kg (220.4 lbs), whichever value is lower. In this case, do not exceed 100 km/h (62.1 mph) for vehicle of category M1 or 80 km/h (49.7 mph) for vehicle of category N1.
- When towing a trailer, the additional load imposed at the trailer coupling device may cause the rear tyre maximum load ratings to be exceeded, but not by more than 15%. In such a case, do not exceed 100 km/h, and the rear

tyre pressure should be at least 20 kPa(0.2 bar) above the tyre pressure(s) as recommended for normal use (i.e. without a trailer attached).

(Diesel) 2.5 VGT/ (Diesel) 2.7 VGT



OPU0421383L

* 1: Collar

2: 6-M 12 bolt

A : 165 (6.50)

B : 70 (2.76)

C : 55 (2.17)

D : 165 (6.50)

E : 50 (1.97)

F : 880 (34.65)

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 tyres 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.

Hitches

It's important to have the correct hitch equipment. Crosswinds, large trucks going by, and rough roads are a few reasons why you'll need the right hitch. Here are some rules to follow:

- Do you have to make any holes in the body of your vehicle when you install a trailer hitch? If you do, then be sure to seal the holes later when you remove the hitch.
If you do not seal them, deadly carbon monoxide (CO) from your exhaust can get into your vehicle, as well as dirt and water.
- The bumpers on your vehicle are not intended for hitches. Do not attach rental hitches or other bumper-type hitches to them. Use only a frame-mounted hitch that does not attach to the bumper.

- Any part of the rear number plate or lighting devices of the vehicle must not be obscured by the mechanical coupling device.

If the rear number plate and/or lighting devices can be obscured partially by any part of the mechanical coupling device, mechanical coupling devices that can not be easily removed or repositioned without use of any tools, except an easily operated (i.e. an effort not exceeding 20Nm) release key which is supplied by the manufacturer of the coupling device, are not permitted for use.

Please note that the mechanical coupling device that is fitted and not in use must always be removed or repositioned if the rear number plate and/or rear lighting devices are obscured by any part of the mechanical coupling device.

Safety chains

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.

- Do not tap into or modify your vehicle's brake system.

WARNING

Trailer brakes

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, tyres 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 you're a good deal longer, 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, kerbs, road signs, trees, or other objects. Avoid jerky or sudden manoeuvres. 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.

Do not connect a trailer lighting system directly to your vehicle's lighting system. Use only an approved trailer wiring harness.

An authorised Kia 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.

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, you should not park your vehicle, with a trailer attached, on a hill. People can be seriously or fatally injured, and both your vehicle and the trailer can be damaged if they begin a downhill trajectory.

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 lose.

However, if you ever have to park your trailer on a hill, here's how to do it:

1. Apply your brakes, but don't shift into gear.
2. Have someone place chocks under the trailer wheels.
3. When the wheel chocks are in place, release the brakes until the chocks absorb the load.
4. Reapply the brakes. Apply your parking brake, and then shift to R (Reverse).
5. Release the brakes.

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 whilst 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

- 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 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.

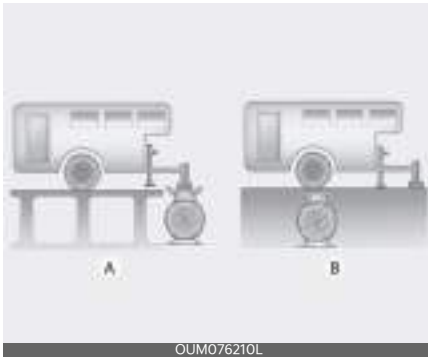
- Do not do any towing with your car during its first 2,000 km (1,200 miles) in order to allow the engine to properly break in. Failure to heed this caution may result in serious engine or transmission damage.
- When towing a trailer, Kia recommends that you consult an authorised Kia dealer/service partner on additional requirements such as a towing kit, etc.
- Always drive your vehicle at a moderate speed (less than 100 km/h (60 mph)).
- On a long uphill grade, do not exceed 70 km/h (45 mph) or the posted towing speed limit, whichever is lower.
- Carefully observe the weight and load limits provided in the following pages.

For Europe

Item		(Diesel) 2.5 VGT	(Diesel) 2.7 VGT
Maximum trailer weight kg (lbs.)	Without brake System	700 (1,543)	700 (1,543)
	With brake System	1,400 (3,086)	1,400 (3,086)
Maximum permissible static vertical load on the coupling device kg (lbs.)		56 (124)	56 (124)
Recommended distance from rear wheel centre to coupling point* mm (inch)	Standard cab	1,405 (55)	
	King cab	1,395 (54)	

* : This is only for Extra Long Body

Weight of the trailer

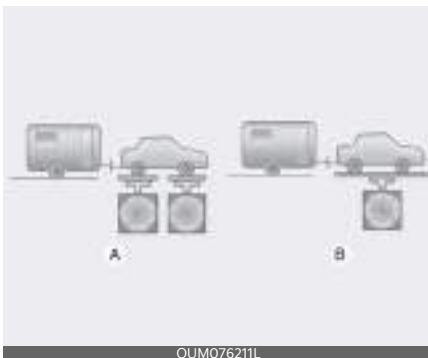


A : Tongue Load

B : Total Trailer Weight

What is the maximum safe weight of a trailer? It should never weigh more than the maximum trailer weight with trailer brakes. But even that can be too heavy. It depends on how you plan to use your trailer. For example, speed, altitude, road grades, outside temperature and how often your vehicle is used to pull a trailer are all important. The ideal trailer weight can also depend on any special equipment that you have on your vehicle.

Weight of the trailer tongue



A : Gross Axle Weight

B : Gross Vehicle Weight

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 kerb 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

Trailer

- 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.

*** NOTICE**

With increasing altitude the engine performance decreases. From 1,000 m

above sea level and for every 1,000 m thereafter 10% of vehicle/trailer weight (trailer weight + gross vehicle weight) must be deducted.

Overloading

WARNING

Vehicle weight

The gross axle weight rating (GAWR) and the gross vehicle weight rating (GVWR) for your vehicle are on the certification label attached to the driver's (or front passenger's) door. Exceeding these ratings can cause an accident or vehicle damage. You can calculate the weight of your load by weighing the items (and people) before putting them in the vehicle. Be careful not to overload your vehicle.

What to do in an emergency

7

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What to do in an emergency

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 centre 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 do not work when the hazard flasher is on.
- Care must be taken when using the hazard warning flasher whilst the vehicle is being towed.

In case of an emergency whilst 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 an 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 tyre whilst driving

If a tyre goes flat whilst you are driving:

1. Take your foot off the accelerator pedal and let the car slow down whilst 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 car 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 car is stopped, turn on your emergency hazard flashers, set the parking brake and put the transmission in reverse (manual transmission).
3. Have all passengers get out of the car. Be sure they all get out on the side of the car that is away from traffic.

4. When changing a flat tyre, follow the instruction provided later in this section.

If engine stalls whilst driving

If a tyre goes flat whilst you are 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. Try to start the engine again. If your vehicle does not start, consult a professional workshop. Kia recommends to consult an authorised Kia dealer/service partner.

Emergency starting

Jump starting

Jump starting can be dangerous if done incorrectly. Therefore, to avoid harm to yourself or damage to your vehicle or battery. 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.

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.
- 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.
- 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.

Connecting jumper cables



* A: Discharged battery

B: Booster battery

Connect cables in numerical order and disconnect in reverse order.

Jump starting procedure

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 previous illustration. First connect one end of a jumper cable to the positive terminal of the discharged battery (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 battery (4). Do not connect it to or near any part that moves when the engine is cranked. Do not connect the

jumper cable from the negative terminal of the booster battery to the negative terminal of the discharged battery.

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.

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, have the system checked by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

Push-starting

Your manual transmission-equipped vehicle should not be push-started because it might damage the emission control system.

Follow the directions in this section for jump-starting.

CAUTION

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, if you experience a loss of power, or if you hear a loud knocking or pinging noise, the engine has probably overheated. Should any of these symptoms occur, use the following procedure:

1. Turn on the hazard warning flasher, then drive to the nearest safe location and stop your vehicle; shift the manual transmission to N (Neutral) and apply the parking brake.
2. Make sure the air conditioner is off.
3. If coolant or steam is boiling out of the radiator, contact a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

If coolant is not boiling out, allow the engine to idle and lift the seat cushions to permit the engine to cool gradually.

If the temperature does not go down with the engine idling, stop the engine and allow sufficient time for it to cool.

4. The coolant level should then be checked. If the level in the reservoir is low, look for leaks at the radiator hoses and connections, heater hoses and connections, radiator, and water pump. If you find a major leak or another problem that may have caused the engine to overheat, do not operate the engine until it has been corrected. Call an authorised Kia Dealer for assistance. If you do not find a leak or other problem, carefully add coolant to the reservoir.

WARNING

Removing 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. This could cause serious injury.

If overheating happens again, call a professional workshop. Kia recommends to call an authorised Kia dealer/ service partner.

If you have a flat tyre

Storing the jack and tools



1. Tool bag
2. Jack

The jack is stored in the bonnet area and other tools are in the tool bag.

To remove the jack



1. Pull down and unhook the rubber band.
2. Lift the jack carefully.

After using, replace the jack in the reverse order of removal.

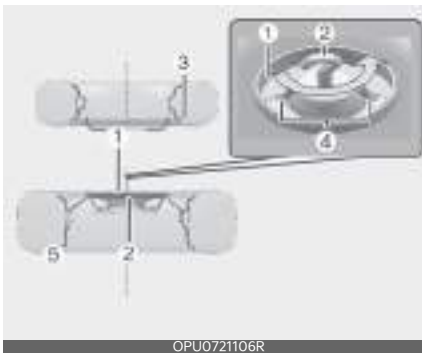
Removing the spare tyre



1. Insert the wheel nut wrench to the spare tyre carrier and insert the wrench lever to the wheel nut wrench.
2. Turn the wheel nut wrench (or crank lever) counterclockwise, and the spare tyre comes down.
3. Disconnect the steel wire from the tyre support hook after the spare tyre comes down completely.

Reinstalling the spare tyre





- * 1: Guide plate
 2: Tyre support hook
 3: Rear spare tyre
 4: Stopper bracket
 5: Front spare tyre

1. To reinstall the spare tyre, build the spare tyre as illustration and pull the tyre support.
2. Connect the steel wire with the tyre support hook.
3. Turn the wheel nut wrench (or crank lever) clockwise.

* NOTICE

To prevent the spare tyre rattling whilst the vehicle is in motion, make sure it is snug and secure against the frame.

Changing tyres

Jacking instructions

The jack is provided for emergency tyre changing only.

Follow jacking instructions to reduce the possibility of personal injury.

⚠ WARNING

Changing tyres

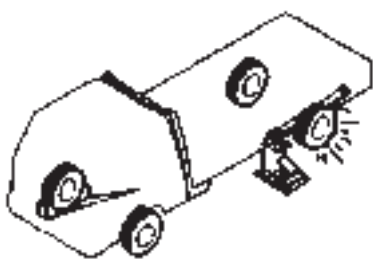
- Never attempt vehicle repairs in the traffic lanes of a public road or highway.
- Always move the vehicle completely off the road and onto the shoulder before trying to change a tyre. The jack should be used on level firm ground. If you cannot find a firm, level place off the road, call a towing service company for assistance.
- 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 whilst the vehicle is on the jack.
- Do not allow anyone to remain in the vehicle whilst 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.

Tire replacement

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 tyre from the vehicle.
5. Block both the front and rear of the wheel that is diagonally opposite the jack position.



⚠ WARNING

Changing a tyre

- To prevent vehicle movement whilst changing a tyre, always set the parking brake fully, and always block the

wheel diagonally opposite the wheel being changed.

- It is recommended that the wheels of the vehicle be chocked, and that no person should remain in a vehicle that is being jacked.

6. Insert the screwdriver into the groove of the wheel cover and pry gently to remove the wheel cover. (if equipped)
7. Loosen the wheel lug nuts counter-clockwise one turn each, but do not remove any nut until the tyre has been raised off the ground.



8. Place the jack at the front or rear jacking position closest to the tyre you are changing. Place the jack as shown in the illustration.

Front - Under cross member



Rear - Under leaf spring



9. Securely tighten the valve of the jack with the groove on the jack.
10. Move the jack handle up and down until the top of the jack contacts the proper point and takes on a slight load, raising the vehicle until the tyre just clears the ground. This measurement is approximately 30 mm (1.2 inches). Before removing the wheel lug nuts, make sure the vehicle is stable and that there is no chance for movement or slippage.

⚠ 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.



⚠ CAUTION

This jack is hydraulic, and the ram is a two-stage type. When both rams are raised and the "stop mark (yellow line)" of the upper ram becomes visible, stop jacking immediately.

11. Remove the wheel lug nuts by turning them counterclockwise, then remove the wheel.
12. Mount the spare tyre into position and install the wheel lug nuts with the beveled edge inward.
13. Gradually loosen the valve of the jack with the groove on the jack handle to lower the vehicle.



*** NOTICE**

If the valve is loosened by turning it 2 or more times in the counterclockwise direction, the jack's oil will leak and the jack cannot be used.

14. Once the wheel lug nuts have been tightened, lower the vehicle fully to the ground and continue to tighten the lug nuts until they are fully secured. Tighten the wheel lug nuts firmly in a “*” pattern.

If you are unsure of the tightness of the wheel lug nuts, have them checked at the nearest service station. Improperly tightened wheel lug nuts could cause brake pedal vibration whilst braking.



Wheel nut tightening torque :

Engine		Body type		Front			Rear			Remark
Fuel	Displacement (Litre)			Hub nut Tightening Torque			Hub nut Tightening Torque			
				kgf.m	lbf.ft	N.m	kgf.m	lbf.ft	N.m	
Diesel	2.5 VGT	Low deck	Standard/ King Cab.	19~22	137~159	186~216	19~22	137~159	186~216	
		High deck		19~22	137~159	186~216	19~22	137~159	186~216	
	2.7 VGT	Low deck	Standard/ King Cab.	9~12	65~87	88~118	19~22	137~159	186~216	
		High deck		19~22	137~159	186~216	19~22	137~159	186~216	

⚠ CAUTION

Your vehicle has metric threads on the wheel studs and nuts. Make certain during wheel removal that the same nuts 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, consult a professional workshop. Kia recommends to consult an authorised Kia dealer/service partner.

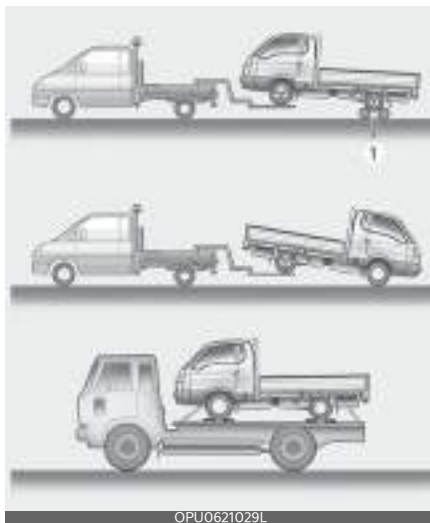
⚠ WARNING**Wheel studs**

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.

To prevent the jack, jack handle, wheel lug nut wrench and spare tyre from rattling whilst the vehicle is in motion, store them properly.

⚠ WARNING

Check the inflation pressures as soon as possible after installing the spare tyre. Adjust it to the specified pressure, if necessary. Refer to "Tyres" on page 9-3.

Towing**Towing service**

If emergency towing is necessary, we recommend having it done by an authorised Kia 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 (1) or flatbed is recommended.

It is acceptable to tow the vehicle with the front wheels on the ground (without dollies) and the rear wheels off the ground.

When being towed by a commercial tow truck and wheel dollies are not used, the rear of the vehicle should always be lifted, not the front.



⚠ CAUTION

- Do not tow the vehicle forward with the rear 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.

* NOTICE

Failure to place the transmission shift lever in N (Neutral) may cause internal damage to the transmission.

Emergency towing



If towing is necessary, we recommend you to have it done by an authorised Kia 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 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 speeds. Also, the wheels, axles, power train, steering and brakes must all be in good condition.

- Do not use the tow 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.
- Accelerate or decelerate the vehicle in a slow and gradual manner whilst maintaining tension on the tow rope or chain to start or drive the vehicle, otherwise tow hooks and the vehicle may be damaged.

- 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 manoeuvres 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 towing vehicle can hardly move, do not forcibly continue the towing. Kia recommends to consult an autho-

rised Kia dealer/service partner for details.

- Tow the vehicle as straight ahead as possible.
- Keep away from the vehicle during towing.



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- 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.
- The driver must be in the vehicle for steering and braking operations when the vehicle is towed and passengers other than the driver must not be allowed to be on board.

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.
- The vehicle should be towed at a speed of 25 km/h (16 mph) or less within the distance of 20 km (12 miles). (for Manual transmission vehicle)

*** NOTICE**

Remove the propeller shaft if it is necessary to exceed 50 km/h (31 mph) and/or 25 km (16 miles). If the drive shaft cannot be removed, stop every 25 km (16 miles) and start the engine. Allow the engine to idle for a few minutes. This will ensure that the transmission is sufficiently lubricated.

- 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.

*** NOTICE**

To prevent internal damage to the transmission, never tow your vehicle from the rear (backwards) with all four tyres in contact with the surface.

Tips for towing a stuck vehicle

The following methods are effective when your vehicle is stuck in mud, sand or similar substances that prevent the vehicle from being driven out under its own power.

- Remove the soil and sand, etc. from the front and the back of the tyres.
- Place a stone or wood under the tyres.

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Maintenance

Engine compartment

(Diesel) 2.5 VGT - Engine



(Diesel) 2.5 VGT - Bonnet



* The actual engine room in the vehicle may differ from the illustration.

* Engine Room is located under the Passenger's seat. Seat Handling Procedure for Engine inspection, refer to "Engine room access" on page 3-7.

1. Engine oil filler cap
2. Radiator cap
3. Engine oil dipstick
4. Power steering fluid reservoir
5. Engine coolant reservoir
6. Climate control air filter
7. Windscreen washer fluid reservoir

(Diesel) 2.7 VGT - Engine



OPU0721051L

(Diesel) 2.7 VGT - Engine



OPU019015L

* The actual engine room in the vehicle may differ from the illustration.

* Engine Room is located under the Passenger's seat. Seat Handling Procedure for Engine inspection, refer to "Engine room access" on page 3-7.

1. Engine oil filler cap
2. Radiator cap
3. Engine oil dipstick
4. Power steering fluid reservoir
5. Engine coolant reservoir
6. Climate control air filter
7. Windscreen washer fluid reservoir

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.

Have your vehicle serviced by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

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 Warranty & Maintenance book.

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 Warranty & Maintenance book provided with the vehicle. If you're unsure about any servicing or maintenance procedure, have the system serviced by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

⚠ WARNING

Maintenance work

- Performing maintenance work on a vehicle can be dangerous. You can be seriously injured whilst performing some maintenance procedures.
If you lack sufficient knowledge and experience or the proper tools and equipment to do the work, have the system serviced by a professional workshop. Kia recommends to visit an authorised Kia dealer/ service partner.
- Working under the bonnet 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.
Therefore, if you must run the engine whilst working under the bonnet, make certain that you remove all jewelry (especially rings, bracelets, watches, and necklaces) and all neckties, scarves, and similar loose cloth-

ing before getting near the engine or cooling fans.

WARNING

Touching metal parts

Do not touch metal parts (including strut bars) whilst the engine is operating or hot. Doing so could result in serious personal injury. Turn the engine off and wait until the metal parts cool down to perform maintenance work on the vehicle.

CAUTION

- When you inspect the fuel system (fuel lines and fuel injection devices), contact a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.
- When checking the engine room, do not go near 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.
- When you remove the interior trim cover with a flat bed (-) driver, be careful not to damage the cover.
- Be careful when you replace and clean bulbs to avoid burns or electrical shock.

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.

Any adverse conditions should be brought to the attention of your dealer as soon as possible.

These Owner Maintenance Checks are generally not covered by warranties and you may be charged for labour, parts and lubricants used.

Owner maintenance schedule

When you stop for fuel:

- Check the coolant level in the coolant reservoir.
- Check the windscreen washer fluid level.
- Look for low or under-inflated tyres.

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.

Whilst 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 straightahead position.
- Notice if your vehicle constantly turns slightly or "pulls" to one side when travelling 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 the parking brake.
- Check for fluid leaks under your vehicle (water dripping from the air conditioning system during or after use is normal).

At least monthly:

- Check the 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 tyres including the spare for tyres that are worn, show uneven wear, or are damaged.
- Check for loose wheel lug nuts.

At least twice a year (i.e., every Spring and Fall):

- Check the radiator, heater and air conditioning hoses for leaks or damage.
- Check the windscreen washer spray and wiper operation. Clean the wiper blades with clean cloth dampened with washer fluid.
- Check the headlight alignment.
- Check the muffler, exhaust pipes, shields and clamps.
- Check the lap/shoulder belts for wear and function.

At least once a year:

- Clean the body and door drain holes.
- Lubricate the door hinges and checks, and bonnet hinges.
- Lubricate the door and bonnet locks and latches.
- Lubricate the door rubber weatherstrips.
- Check the air conditioning system.
- Check the power steering fluid level.
- Clean the battery and terminals.
- Check the brake fluid level.

Scheduled maintenance service

schedule instead of the normal usage maintenance schedule.

Scheduled maintenance service precaution

Follow the Normal Maintenance Schedule if the vehicle is usually operated where none of the following conditions apply. If any of the following conditions apply, follow the Maintenance Under Severe Usage Conditions.

- Repeated driving short distance of less than 8 km (5 miles) in normal temperature or less than 16 km (10 miles) in freezing temperature
- Extensive engine idling or low speed driving for long distances
- Driving on rough, dusty, muddy, unpaved, graveled or salt-spread roads
- Driving in areas using salt or other corrosive materials or in very cold weather
- Driving in heavy dust condition
- Driving in heavy traffic area
- Driving on uphill, downhill, or mountain road repeatedly
- Using for towing or camping and driving with loading on the roof.
- Driving as a patrol car, taxi, other commercial use of vehicle towing
- Frequently driving under high speed or rapid acceleration/deceleration.
- Frequently driving in stop-and-go condition
- Engine oil usage which is not recommended (Mineral type, Semisynthetic, Viscosity grade)

If your vehicle is operated in any of the prior listed conditions, you should inspect, replace or refill more frequently, using the severe usage maintenance

Normal maintenance schedule

The following maintenance services must be performed to ensure good emission control and performance. Keep receipts for all vehicle emission services to protect your warranty. Where both mileage and time are shown, the frequency of service is determined by whichever occurs first.

Number of months or driving distance, whichever comes first											
Months		-	6	12	18	24	30	36	42	48	54
Miles×1,000		0.6	6	12	18	24	30	36	42	48	54
Km×1,000		1	10	20	30	40	50	60	70	80	90
Drive belts *1	(Diesel) 2.7 VGT		I	I	I	I	I	I	I	I	I
	(Diesel) 2.5 VGT		At first, Inspect 90,000 km (60,000 miles) or 72 months after that, Inspect every 30,000 km (20,000 miles) or 24 months								
Engine oil and engine oil filter *2	(Diesel) 2.5 VGT	For Europe, Australia, New Zealand and Russia	Replace every 15,000 km (10,000 miles) or 12 months								
		Except Europe	Replace every 10,000 km (6,200 miles) or 12 months								
	(Diesel) 2.7 VGT		Replace every 5,000 km (3,000 miles) or 6 months								
Air cleaner filter *8	For Middle East		Replace every 5,000 km (3,000 miles) or 6 months								
	Except Middle East		Clean every 15,000 km (10,000 miles) or 12 months and replace every 45,000 km (30,000 miles) or 36 months								
Vapour hose and fuel filler cap	(Diesel) 2.7 VGT				I			I			I
Vacuum and crankcase ventilation hoses	(Diesel) 2.7 VGT				I			I			I
Fuel filter cartridge *3	Diesel	For Europe			I			R			I
		Except Europe			R			R			R
Fuel lines and hoses	Diesel		I		I		I		I		

Number of months or driving distance, whichever comes first											
Months		-	6	12	18	24	30	36	42	48	54
Miles×1,000		0.6	6	12	18	24	30	36	42	48	54
Km×1,000		1	10	20	30	40	50	60	70	80	90
Fuel injection system (with EMS parts)	Diesel										
Cooling system		Inspect "Coolant level adjustment and leak" every day Inspect "Water pump" when replacing the drive belt or timing belt									
Engine coolant *4	For Europe	At first, replace at 210,000 km (120,000 miles) or 10 years: after that, replace every 30,000 km (20,000 miles) or 24 months									
	Except Europe	At first, replace at 210,000 km (120,000 miles) or 10 years: after that, replace every 40,000 km (25,000 miles) or 24 months									
Battery condition											
All electrical systems											
Brake lines, hoses and connections											
Brake pedal, clutch pedal											
Parking brake											
Brake/clutch fluid	For Europe	Inspect every 15,000 km (10,000 miles) or 12 months and, Replace every 30,000 km (20,000 miles) or 24 months									
	Except Europe	Inspect every 15,000 km (10,000 miles) or 12 months and, Replace every 45,000 km (30,000 miles) or 36 months									
Disc brakes and pads											
Drum brakes and linings											
Power steering fluid and hoses (if equipped)											
Steering gear rack, linkage and boots											
Drive shaft and boots											
Tyre (pressure & tread wear)											
Front suspension ball joints											
Leaf spring U-bolt *5 (if equipped)											
Bolt and nuts on chassis and body											
Front & rear wheel bearing play *6											

Number of months or driving distance, whichever comes first										
Months	-	6	12	18	24	30	36	42	48	54
Miles×1,000	0.6	6	12	18	24	30	36	42	48	54
Km×1,000	1	10	20	30	40	50	60	70	80	90
Climate control air filter	Replace every 15,000 km (10,000 miles) or 12 months									
Air conditioner refrigerant (if equipped)	I	I	I	I	I	I	I	I	I	
Air conditioner compressor (if equipped)	I	I	I	I	I	I	I	I	I	
Manual transmission fluid	No check, No service required									
Transfer case fluid *7							I			

I : Inspect and if necessary, adjust, correct, clean or replace.

R : Replace or change.

* 1 : Adjust alternator, water pump and air conditioner (if equipped) drive belt. Inspect and if necessary repair or replace.

Inspect drive belt tensioner, idler and alternator pulley and if necessary correct or replace.

* 2 : As it is normal for engine oil to be consumed during driving, the engine oil level should be checked on regular basis.

The engine oil change interval for normal operating conditions is based on the use of the recommended engine specification. If the recommended engine oil specification is not used, then replace the engine oil according to the maintenance schedule under severe operating conditions.

The engine oil level should be checked regularly and maintained properly. Operating with an insufficient amount oil can damage the engine, and such damage is not covered by warranty.

This maintenance schedule depends on fuel quality. It is applicable only when using a qualified fuel <"EN590 or equivalent">. If the diesel fuel specifications don't meet the EN590, it must be replaced according to the severe maintenance schedule.

* 3 : This maintenance schedule depends on fuel quality. It is applicable only when using a qualified fuel <"EN590 or equivalent">. If the diesel fuel specifications don't meet the EN590, it must be replaced 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 consult a professional workshop. Kia recommends to consult an authorised Kia dealer/service partner. (For europe)

This maintenance schedule depends on fuel quality. It is applicable only when using a qualified fuel <"EN590 or equivalent">. If the diesel fuel specifications don't meet the EN590, it must be replaced more frequently. Kia recommend "every 7,500

km (5,000 miles) inspection, every 15,000 km (10,000 miles) replacement". If there are some important safety matters like fuel flow restriction, surging, loss of power, hard starting problem etc, replace the fuel filter immediately regardless of maintenance schedule and consult a professional workshop. Kia recommends to consult an authorised Kia dealer/service partner. (Except europe)

- * 4 : 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.
- * 5 : Adjust and tighten the leaf spring U-bolt at first 1,000 km (600 miles) after replacing the leaf spring or U-bolt.
- * 6 : Add the wheel bearing grease depending on the condition.
- * 7 : Transfer case oil and differential oil should be changed anytime they have been submerged in water.
- * 8 : Middle East includes India, Libya, Algeria, Morocco, Tunisia, Sudan, Egypt and Iran.

Maintenance under severe usage conditions

The following items must be serviced more frequently on cars mainly used under severe driving conditions.

Refer to the chart below for the appropriate maintenance intervals.

R : Replace

I : Inspect and if necessary, adjust, correct, clean or replace

Maintenance item			Maintenance operation	Maintenance intervals	Driving condition
Engine oil and engine oil filter	(Diesel) 2.5 VGT	For Europe, Australia, New Zealand and Russia	R	Every 7,500 km (5,000 miles) or 6 months	A, B, C, D, E, F, G, H, I, J, K, L
		Except Europe	R	Every 5,000 km (3,000 miles) or 6 months	
	(Diesel) 2.7 VGT		R	Every 3,000 km (2,000 miles) or 6 months	A, B, C, D, E, F, G, H, I, J, K, L
Air cleaner element			I or R	Clean every time engine oil replaces Replace every 10,000 km (6,000 miles)	C, E
Manual transmission fluid			R	Every 120,000 km (80,000 miles)	A, C, E, F, G, H, I, J
Front and rear differential fluid			I or R	Every 10,000 km (6,000 miles)	C, E, G, H, I, J
Transfer case fluid (if equipped)			R	Every 120,000 km (75,000 miles)	C, E, G, H, I, J
Steering gear rack, linkage and boots			I	Inspect more frequently depending on the condition	C, D, E, F, G
Front suspension ball joints			I	Inspect more frequently depending on the condition	C, D, E, F, G
Brake discs, pads and calipers			I	Inspect more frequently depending on the condition	C, D, E, G, H
Drum brakes and linings			I	Inspect more frequently depending on the condition	C, D, E, G, H
Parking brake			I	Inspect more frequently depending on the condition	C, D, G, H
Drive shaft and boots			I	Inspect more frequently depending on the condition	C, D, E, F
Dust filter			I	Every 10,000 km (6,000 miles)	C, E

Severe driving conditions

A : Repeatedly driving short distance of less than 8 km (5 miles) in normal temperature or less than 16 km (10 miles) in freezing temperature.

B : Extensive engine idling or low speed driving for long distances.

C : Driving on rough, dusty, muddy, unpaved, graveled or saltspread roads.

D : Driving in areas using salt or other corrosive materials or in very cold weather

E : Driving in heavy dust condition.

F : Driving in heavy traffic area.

G : Driving on uphill, downhill, or mountain roads.

H : Using for towing or camping and driving with loading on the roof.

I : Driving for patrol car, taxi, commercial car or vehicle towing.

J : Frequently driving under high speed or rapid acceleration/deceleration.

K : Frequently driving in stop and go conditions.

L : Engine oil usage which is not recommended (Mineral type, Semi-synthetic, Viscosity grade).

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 (for diesel)

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. Have the fuel filter replaced by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

Fuel lines, fuel hoses and connections

Check the fuel lines, fuel hoses and connections for leakage and damage. Have the fuel lines, fuel hoses and connections replaced by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

WARNING

Diesel only

Never work on the injection system with the engine running or within 30 seconds after shutting off the engine. High pressure pump, rail, injectors and high pressure pipes are subject to high pressure even after the engine stops. The fuel jet produced by fuel leaks may cause serious injury, if it touches the body. People using pacemakers should not move more than 30 cm closer to the ECU or wiring harness within the engine room whilst the engine is running, since the high currents in the Common Rail system produce considerable magnetic fields.

Vapour hose (for petrol engine) and fuel filler cap

The vapour hose and fuel filler cap should be inspected at those intervals specified in the maintenance schedule. Make sure that a new vapour 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

Have the air cleaner filter replaced by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

Cooling system

Check the cooling system components, such as the 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

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/Clutch fluid

Check the brake/clutch fluid level in the brake/clutch fluid reservoir. The level should be between "MIN" and "MAX" marks on the side of the reservoir. Use only hydraulic brake/clutch fluid conforming to DOT 3 or DOT 4 specification.

Parking brake

Inspect the parking brake system including the parking brake lever (or pedal) and cables.

Brake discs, pads and calipers

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, we recommend to refer to the Kia web site.

(www.Kia-hotline.com)

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.

Drive shafts and boots

Check the drive shafts, boots and clamps for cracks, deterioration, or dam-

age. Replace any damaged parts and, if necessary, repack the grease.

Air conditioning refrigerant (if equipped)

Check the air conditioning lines and connections for leakage and damage.

Engine oil (for (Diesel) 2.5 VGT)

Checking the engine oil level

Engine oil is used for lubricating, cooling, and operating various hydraulic components in the engine. Engine oil consumption whilst driving is normal, and it is necessary to check and refill the engine oil regularly. Also, check and refill the oil level within the recommended maintenance schedule to prevent deterioration of oil performance.

Check the engine oil following the below procedure.



1. 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, remove the oil filler cap and pull the dipstick out. Wait for 15 minutes for the oil to return to the oil pan.
4. Wipe the dipstick clean and reinsert it fully.
5. Pull the dipstick out again and check the level. The level should be in the C range. If the level is in the D range, add enough engine oil to bring the level up the range.

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.

Range	Required action according to the respective engine oil level
A	Contact an authorised Kia dealer/service partner.
B	Do not refill oil.
C	You may add oil as long as the oil level does not go above C-range.
D	You must add oil and make sure that the oil level is in the C-Range.

CAUTION

When you wipe the oil level gauge, you should wipe it with a clean cloth. When mixed with debris, it can cause engine damage.



Use only the specified engine oil. (Refer to "Capacities" on page 9-6.)

- Do not spill engine oil when adding or changing engine oil. Wipe off spilled oil immediately.
- The engine oil consumption may increase whilst you break in a new vehicle and it will be stabilized after driving 6,000 km (4,000 miles).
- The engine oil consumption can be affected by driving habits, climate conditions, traffic conditions, oil quality, etc. Therefore, it is recommended that you inspect the engine oil level regularly and refill it if necessary.

Changing the engine oil and filter

Have the engine oil and filter replaced by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

- If the maintenance schedule to replace engine oil is exceeded, the engine oil performance may deteriorate, and the engine condition may be affected. Therefore, replace the engine oil according to the maintenance schedule.
- To keep the engine in optimal condition, use the recommended engine oil and filter. If the recommended engine oil and filter are not used replace it according to the maintenance schedule under severe usage conditions.
- The purpose of the maintenance schedule for engine oil replacement is to prevent oil deterioration and it is irrelevant to oil consumption. Check and refill engine oil regularly.

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 ani-

mals. Always protect your skin by washing your hands thoroughly with soap and warm water as soon as possible after handling used oil. Do not leave used engine oil within the reach of children.

CAUTION

The engine oil is very hot immediately after the vehicle has been driven and can cause burns during replacement. Replace the engine oil after the engine oil has cooled down.

Engine oil (for (Diesel) 2.7 VGT

Checking the engine oil level

Engine oil is used for lubricating, cooling, and operating various hydraulic components in the engine. Engine oil consumption whilst driving is normal, and it is necessary to check and refill the engine oil regularly. Also, check and refill the oil level within the recommended maintenance schedule to prevent deterioration of oil performance.

Check the engine oil following the below procedure.



1. 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, remove the oil filler cap and pull the dipstick out. Wait for 15 minutes for the oil to return to the oil pan.
4. Wipe the dipstick clean and reinsert it fully.
5. Pull the dipstick out again and check the level. Check if the oil level is between the F-L line, and if it is below the L line, add enough oil to bring the level to F line.

⚠ 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.

⚠ CAUTION

When you wipe the oil level gauge, you should wipe it with a clean cloth. When mixed with debris, it can cause engine damage.



Use only the specified engine oil. (Refer to "Capacities" on page 9-6.)

- Do not spill engine oil when adding or changing engine oil. Wipe off spilled oil immediately.
- The engine oil consumption may increase whilst you break in a new vehicle and it will be stabilized after driving 6,000 km (4,000 miles).
- The engine oil consumption can be affected by driving habits, climate conditions, traffic conditions, oil quality, etc. Therefore, it is recommended that you inspect the engine oil level regularly and refill it if necessary.

Changing the engine oil and filter

Have the engine oil and filter replaced by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

- If the maintenance schedule to replace engine oil is exceeded, the engine oil performance may deteriorate, and the engine condition may be affected. Therefore, replace the engine oil according to the maintenance schedule.
- To keep the engine in optimal condition, use the recommended engine oil and filter. If the recommended engine oil and filter are not used replace it according to the maintenance schedule under severe usage conditions.
- The purpose of the maintenance schedule for engine oil replacement is to prevent oil deterioration and it is irrelevant to oil consumption. Check and refill engine oil regularly.

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. Do not leave used engine oil within the reach of children.

CAUTION

The engine oil is very hot immediately after the vehicle has been driven and can cause burns during replacement.

Replace the engine oil after the engine oil has cooled down.

Engine Coolant

The high-pressure cooling system has a reservoir filled with year round anti-freeze coolant. The reservoir is filled at the factory.

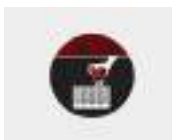
Check the antifreeze protection and coolant level at least once a year, at the beginning of the winter season, and before travelling to a colder climate.

⚠ CAUTION

- When the engine overheats from low engine coolant, suddenly adding engine coolant may cause cracks in the engine. To prevent damage, add engine coolant slowly in small quantities.
- Do not drive with no engine coolant. It may cause water pump failure and engine seizure, etc.

Checking the coolant level

⚠ WARNING



Removing radiator cap

- Never attempt to remove the radiator cap whilst the engine

is operating or hot. Doing so might lead to cooling system and engine damage. Also, hot coolant or steam could cause serious personal injury.

- 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 whilst the pressure is released from the cooling system. When you are sure all the pressure has been released, press down on the

cap, using a thick towel, and continue turning counterclockwise to remove it.

- Even if the engine is not operating, do not remove the radiator cap or the drain plug whilst 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. The electric motor (cooling fan) may operate until you disconnect the negative battery cable.



OPU0721102L

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 (Full) and L (Low) marks on the side of the coolant reservoir when the engine is cool.

If the coolant level is low, add enough specified coolant to provide protection against freezing and corrosion. Bring the level to F (Full), but do not overfill. If frequent additions are required, have the system inspected by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

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 with phosphate based coolant to prevent corrosion and freezing.
- DO NOT USE alcohol or methanol coolant or mix them with the specified coolant.
- Do not use a solution that contains more than 60% antifreeze or less than 35% antifreeze, which would reduce the effectiveness of the solution.

For mixture percentage, refer to the following table.

Ambient Temperature	Mixture Percentage (volume)	
	Anti-freeze	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

Have the coolant replaced by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

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 alternator.

⚠ WARNING

Coolant

- Do not use radiator coolant or anti-freeze in the washer fluid reservoir.
- Radiator coolant can severely obscure visibility when sprayed on the wind-screen and may cause loss of vehicle control or damage the paint and body trim.

Brake/clutch fluid

Checking the brake/clutch fluid level



Check the fluid level in the reservoir periodically. The fluid level should be between MAX and MIN marks on the side of the reservoir.

Before removing the reservoir cap and adding brake/clutch fluid, clean the area around the reservoir cap thoroughly to prevent brake/clutch fluid contamination.

Periodically check that the fluid level in the brake fluid reservoir is between MIN and MAX. The level will fall with accumulated mileage. This is a normal condition associated with the wear of the brake linings.

If the fluid level is excessively low, have the system checked by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

Use only the specified brake/clutch fluid. (Refer to "Capacities" on page 9-6.)

Never mix different types of fluid.

⚠ WARNING

Loss of brake/clutch fluid

In the event the brake/clutch system requires frequent additions of fluid, have

the system inspected by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

⚠ WARNING

Brake/clutch fluid

When changing and adding brake/clutch fluid, handle it carefully. Do not let it come in contact with your eyes. If brake/clutch 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/clutch fluid to contact the vehicle's body paint, as paint damage will result. Brake/clutch 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 properly disposed. Don't put in the wrong kind of fluid. A few drops of mineral-based oil, such as engine oil, in your brake/clutch system can damage brake/clutch system parts.

⚠ CAUTION

To maintain your vehicle's best brake performance, use Kia genuine brake fluid as in the specification. (Classification : SAE J1704 DOT4 LV, ISO4925 CLASS-6, FMVSS116 DOT-4 or DOT-3)

Power steering fluid (if equipped)

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.

In the event the power steering system requires frequent addition of fluid, have the system inspected by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

*** NOTICE**

- 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 tank.
- 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 "Capacities" on page 9-6.)

Checking the power steering hose

Check the connections for oil leaks, damage and twists in the power steering hose before driving.

Checking the free-play

Steering wheel



To check the steering wheel free-play, stop the car with the wheels pointed straight ahead and gently move the steering wheel back and forth. Use very light finger pressure and be sensitive to changes in resistance that mark the limits of the freeplay. If the free-play is greater than standard value, have the system serviced by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

Standard value : 30 mm (1.2 inches) or less

Clutch pedal



With the engine off, press lightly on the clutch pedal until you feel a change in resistance. This is the clutch pedal free-play. If the free-play is greater than standard value, have the system serviced by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

Standard value : 6 ~ 13 mm (0.24 ~ 0.51 inches) or less

Brake pedal



With the engine off, press down on the brake pedal several times to reduce the vacuum in the brake booster. Then, using your hand, press down slowly on the brake pedal until you feel a change in resistance. This is the brake pedal free-play.

If the free-play is greater than standard value, have the system serviced by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

Standard value : 3 ~ 8 mm (0.12 ~ 0.31 inches) or less

Washer fluid

Checking the washer fluid level



The reservoir is translucent so that you can check the level with a quick visual inspection.

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

Coolant

- Do not use radiator coolant or anti-freeze in the washer fluid reservoir.
- Radiator coolant can severely obscure visibility when sprayed on the windscreen and may cause loss of vehicle control or damage to paint and body trim.
- Windscreen 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.
- Windscreen washer fluid is poisonous to humans and animals. Do not drink

and avoid contacting windscreen washer fluid. Serious injury or death could occur.

Parking brake

Checking the parking brake



Check whether the stroke is within specification when the parking brake pedal is depressed with 20 kg (44 lbs, 196 N) of force. Also, the parking brake alone should securely hold the vehicle on a fairly steep grade. If the stroke is more or less than specified, have the system serviced by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

Stroke : 3 notch

Fuel filter (for diesel)

If water accumulates in the fuel filter, the warning light comes on when the ignition key is in the "ON" position.

⚠ 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.

Extracting air in the fuel system

(Diesel) 2.5 VGT - Type A



(Diesel) 2.5 VGT - Type B



(Diesel) 2.7 VGT



The fuel system should be bled to remove air as described in the illustration if the fuel supply is exhausted during travel, when the fuel filter is replaced, or if the vehicle is not used for a long time.

1. Loosen the air plug at the upper part of the fuel filter.
2. Pump the hand pump until there are no more bubbles in the fuel coming out of the air plug. When doing this, place a cloth around the air plug to prevent the escaping fuel from spewing about.
3. Tighten the air plug when there are no more bubbles in the fuel.
4. Continue pumping until the hand pump becomes stiff.
5. Finally, check to be sure that there is no leakage of fuel.

* NOTICE

The type B fuel filter of (Diesel) 2.5 VGT Engine does not need extracting air from the fuel filter.

⚠ WARNING

Coolant

- Do not smoke or have any other open flame near the vehicle whilst bleeding the fuel system.
- Be sure to carefully wipe away any water drained out in this manner, because the fuel mixed in the water might be ignited and result in a fire.

Draining water from fuel filter

(Diesel) 2.5 VGT - Type A



OPU0721075L

(Diesel) 2.5 VGT - Type B



OPU0721076L

(Diesel) 2.7 VGT



OPU0721077L

If the fuel filter warning light illuminates during driving, it indicates that water has accumulated in the fuel filter. If this occurs, remove the water as described below.

1. Loosen the drain plug at the bottom of the fuel filter.
2. Operate the hand pump slowly 6 or 7 times in order to force the water out through the drain plug.
3. Tighten the drain plug when water no longer comes out.
4. Loosen the air plug and bleed the air. (Refer to "Extracting air in the fuel system" on page 8-29.)
5. Check to be sure that the warning light illuminates when the ignition key is turned to "ON", and that it goes off when the engine is started.

⚠ WARNING

Coolant

- Do not smoke or have any other open flame near the vehicle whilst bleeding the fuel system.
- Be sure to carefully wipe away any water drained out in this manner, because the fuel mixed in the water might be ignited and result in a fire.

Air cleaner

Filter inspection



Air cleaner filter may be air cleaned or replaced, depending on its condition. Unless it is very dirty, merely shake it to remove foreign particles. Each time this filter is inspected, wipe the inside of the air cleaner housing and cover with a damp cloth. If the vehicle is operated in extremely dusty or sandy areas, clean or replace air cleaner filter more often than at the usual recommended intervals.

Filter replacement



A dry paper air cleaner filter is used. It must be replaced when necessary.

1. Loosen the air cleaner cover attaching clips and open the cover.

2. Wipe the inside of the air cleaner housing with a clean, damp cloth.
3. Replace the air cleaner filter. We recommend that the air cleaner filter be replaced with genuine Kia parts.
4. Lock the cover with the cover attaching clips.

Replace the filter according to the Scheduled Maintenance Section.

If the vehicle is operated in extremely dusty or sandy areas, replace the filter more often than the usual recommended intervals. (Refer to "Maintenance under severe usage conditions" on page 8-14.)

⚠ CAUTION

- Do not drive with the air cleaner removed; this will result in excessive engine wear.
- Driving without an air cleaner encourages backfiring, which could cause a fire in the engine compartment.
- When removing the air cleaner filter, be careful that dust or dirt does not enter the air intake, or damage may result.

Climate control air filter

Filter inspection

Inspect the climate control air filter according to the regular maintenance schedule. If the vehicle is being driven in severe conditions such as air polluted city area or dusty unpaved road for a long period, it is recommended to inspect frequently and replace it earlier than the schedule. If you replace it by yourself, please refer to following instruction and be careful not to damage other components.

Filter replacement

Paper filter type



1. Open the bonnet.
2. Disassemble the Air Inlet Duct nut from the dash panel.
3. Disassemble the Air Inlet Duct Assembly (1).
4. Disassemble the Dust paper filter (2).
5. Replace the Air Filter for Climate Control System.
6. Assemble it in the reverse order of disassemble and install it.

Washable type



1. Open the bonnet.
2. Disassemble the Air Inlet Duct nut from the dash panel.
3. Disassemble the Air Inlet Duct Assembly (1).
4. Disassemble the filter (2) and wash it by using water or compressed air. In case of water wash, install it after completely dry.
5. Assemble it in the reverse order of disassemble and install it.

Wiper blades

Blade inspection



OQL076114R

* NOTICE

Commercial hot waxes applied by automatic car washes have been known to make the windscreen difficult to clean.

Contamination of either the windscreen or the wiper blades with foreign matter can reduce the effectiveness of the windscreen wipers. Common sources of contamination are insects, tree sap, and hot wax treatments used by some commercial car washes. If the blades are not wiping properly, clean both the window and the blades with a good cleaner or mild detergent, and rinse thoroughly with clean water.

⚠ CAUTION

To prevent damage to the wiper blades, do not use petrol, 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 windscreen wiper blade

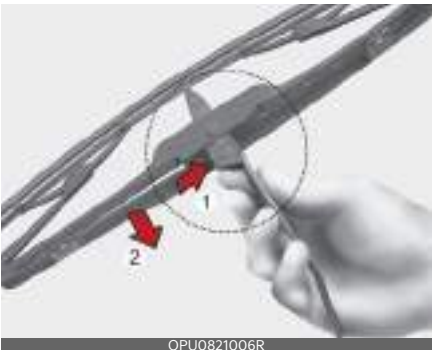
1. Raise the wiper arm and turn the wiper blade assembly to expose the plastic locking clip.



OPU0821005R

⚠ CAUTION

Do not allow the wiper arm to fall against the windscreen.



OPU0821006R

2. Compress the clip (1) and slide the blade assembly downward (2).
3. Lift it off the arm.



4. Install the blade assembly in the reverse order of removal.

Battery

For best battery service



- Keep the battery securely mounted.
- Keep the battery top clean and dry.
- Keep the terminals and connections clean, tight, and coated with petroleum jelly or terminal grease.
- Rinse any spilled electrolyte from the battery immediately with a solution of water and baking soda.
- If the vehicle is not going to be used for an extended time, disconnect the battery cables.

* 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. Contact a professional work-

shop. Kia recommends to visit an authorised Kia dealer/service partner.

⚠ 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, which is 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.



If any electrolyte gets into your eyes, flush your eyes with clean water for at least 15 minutes and get immediate medical attention. If possible, continue to apply water with a sponge or cloth until medical attention is received.

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.

- 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 charge 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

- When you don't use the vehicle for a long time in the low temperature area, separate the battery and keep it indoors.
- Always charge the battery fully to prevent battery case damage in low temperature area.
- If you connect unauthorised electronic devices to the battery, the battery may be discharged. Never use unauthorised devices.

Battery capacity label



- * The actual battery label in the vehicle may differ from the illustration.
1. CMF65L-BCI : The Kia model name of battery
 2. 12V : The nominal voltage
 3. 60Ah(20HR) : The nominal capacity (in Ampere hours)
 4. 92RC : The nominal reserve capacity (in min.)
 5. 550CCA : The cold-test current in amperes by SAE
 6. 440A : 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 whilst 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 whilst the vehicle is being used, recharge it at 20-30A for two hours.

⚠ 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).

- Wear eye protection when checking the battery during charging.
- 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.

⚠ CAUTION

- Keep the battery away from water or any liquid.
- For your safety, use parts for replacement from a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

Reset items

Items should be reset after the battery has been discharged or the battery has been disconnected.

- Auto up/down window
- Climate control system
- Audio

Tyres and wheels

Tyre care

For proper maintenance, safety, and maximum fuel economy, you must always maintain recommended tyre inflation pressures and stay within the load limits and weight distribution recommended for your vehicle.

Recommended cold tyre inflation pressures

All tyre pressures (including the spare) should be checked when the tyres are cold. "Cold Tyres" means the vehicle has not been driven for at least three hours or driven less than 1.6 km (one mile).

Recommended pressures must be maintained for the best ride, top vehicle handling, and minimum tyre wear.

For recommended inflation pressure, refer to "Tyres" on page 9-3.

All specifications (sizes and pressures) can be found on a label attached to the vehicle.

WARNING

Tyre underinflation

Severe underinflation (70 kPa (10 psi, 0.7 bar) or more) can lead to severe heat build-up, causing blowouts, tread separation and other tyre 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.

CAUTION

- Underinflation also results in excessive wear, poor handling and reduced fuel economy. Wheel deformation also is possible. Keep your tyre pressures at the proper levels. If a tyre fre-

quently needs refilling, have the system checked by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

- Overinflation produces a harsh ride, excessive wear at the centre of the tyre tread, and a greater possibility of damage from road hazards.

CAUTION

- Warm tyres normally exceed recommended cold tyre pressures by 28 to 41 kPa (4 to 6 psi, 0.28 to 0.41 bar). Do not release air from warm tyres to adjust the pressure or the tyres will be underinflated.
- Be sure to reinstall the tyre 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

Tyre Inflation

Overinflation or underinflation can reduce tyre life, adversely affect vehicle handling, and lead to sudden tyre failure. This could result in loss of vehicle control and potential injury.

CAUTION

Tyre pressure

Always observe the following:

- Check tyre pressure when the tyres are cold. (After vehicle has been parked for at least three hours or hasn't been driven more than 1.6 km (one mile) since startup.)

- Check the pressure of your spare tyre each time you check the pressure of other tyres.
- Never overload your vehicle. Be careful not to overload a vehicle luggage rack if your vehicle is equipped with one.
- Worn, old tyres can cause accidents. If your tread is badly worn, or if your tyres have been damaged, replace them.

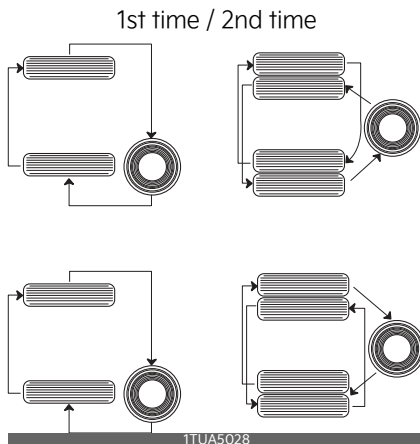
Tyre rotation

To equalize tread wear, it is recommended that the tyres be rotated every 10,000 km (6,500 miles) or sooner if irregular wear develops.

During rotation, check the tyres for correct balance.

When rotating tyres, check for uneven wear and damage. Abnormal wear is usually caused by incorrect tyre pressure, improper wheel alignment, out-of-balance wheels, severe braking or severe cornering. Look for bumps or bulges in the tread or side of tyre. Replace the tyre if you find either of these conditions. Replace the tyre if fabric or cord is visible. After rotation, be sure to bring the front and rear tyre pressures to specification and check lug nut tightness.

Refer to "Tyres" on page 9-3.



Disc brake pads and rear brake shoes should be inspected for wear whenever tyres are rotated.

* NOTICE

Rotate radial tyres that have an asymmetric tread pattern only from front to rear and not from right to left.

⚠ WARNING

- Do not use the compact spare tyre (if equipped) for tyre rotation.
- Do not mix bias ply and radial ply tyres under any circumstances. This may cause unusual handling characteristics that could result in death, severe injury, or property damage.

Wheel alignment and tyre balance

The wheels on your vehicle were aligned and balanced carefully at the factory to give you the longest tyre life and best overall performance.

In most cases, you will not need to have your wheels aligned again. However, if you notice unusual tyre 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.

Tyre replacement



If the tyre is worn evenly, a tread wear Indicator (A) 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 tyre. Replace the tyre when this happens.

Do not wait for the band to appear across the entire tread before replacing the tyre.

* NOTICE

We recommend that when replacing tyres, use the same originally supplied with the vehicles.

If not, that affects driving performance.

⚠ CAUTION

When replacing the tyres, recheck and tighten the wheel nuts after driving about 50 km (31 miles) and recheck after driving about 1,000 km (620 miles). If the steering wheel shakes or the vehicle vibrates whilst driving, the tyre is out of balance. Align the tyre balance. If the problem is not solved, contact a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

⚠ WARNING

- When replacing tyres, never mix radial, bias-belted, and bias-type tyres. All four tyres should be of the same size, design and construction. Use only the tyre sizes listed on the Tyre Label found below the door striker on the driver's side. Make sure that all tyres and wheels are the same size and have the same load-carrying capacity. Use only tyre and wheel combinations recommended on the Tyre Label or by an authorised Kia Dealer. Failure to follow these precautions can adversely affect the safety and handling of your vehicle.
- The use of any other tyre size or type may seriously affect ride, handling, ground clearance, tyre clearance, and speedometer calibration.
- Driving on worn-out tyres is very hazardous and will reduce braking effectiveness, steering accuracy, and traction.
- It is best to replace all four tyres at the same time. If that is not possible, or necessary, then replace the two front or two rear tyres as a pair. Replacing

just one tyre can seriously affect your vehicle's handling.

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-tyre clearance, snow chain clearance, speedometer and odometer calibration, headlight aim and bumper height.

Tyre traction

Tyre traction can be reduced if you drive on worn tyres, tyres that are improperly inflated or on slippery road surfaces. Tyres should be replaced when tread wear indicators appear. Slow down whenever there is rain, snow or ice on the road to reduce the possibility of losing control of the vehicle.

Tyre maintenance

In addition to proper inflation, correct wheel alignment helps to decrease tyre wear. If you find a tyre is worn unevenly, have a professional workshop check the wheel alignment. Kia recommends to visit an authorised Kia dealer/service partner.

When you have new tyres installed, make sure they are balanced. This will increase vehicle ride comfort and tyre life. Additionally, a tyre should always be rebalanced if it is removed from the wheel.

Tyre sidewall labeling



This information identifies and describes the fundamental characteristics of the tyre and also provides the tyre identification number (TIN) for safety standard certification. The TIN can be used to identify the tyre in case of a recall.

1. Manufacturer or brand name

Manufacturer or Brand name is shown.

2. Tyre size designation

A tyre's sidewall is marked with a tyre size designation. You will need this information when selecting replacement tyres for your vehicle. The following explains what the letters and numbers in the tyre size designation mean.

Example tyre size designation:

195 R14C 106/104R

(These numbers are provided as an example only; your tyre size designator could vary depending on your vehicle.)

195 - Tyre width in millimeters.

R - Tyre construction code (Radial).

14 - Rim diameter in inches.

C - Commercial tyre.

106/104 - Load Index, a numerical code associated with the maximum load the tyre can carry.

R - Speed Rating Symbol. See the speed rating chart in this section for additional information.

5.00 R12LT 83/81P

(These numbers are provided as an example only; your tyre size designator could vary depending on your vehicle.)

5.00 - Tyre width in inches.

R - Tyre construction code (Radial).

12 - Rim diameter in inches.

LT - Light truck tyre.

83/81 - Load Index, a numerical code associated with the maximum load the tyre can carry.

P - Speed Rating Symbol. See the speed rating chart in this section for additional information.

Wheel size designation

Wheels are also marked with important information that you need if you ever have to replace one. The following explains what the letters and numbers in the wheel size designation mean.

Example wheel size designation:

7.5JX19

7.5 - Rim width in inches.

J - Rim contour designation.

19 - Rim diameter in inches.

Tyre speed ratings

The chart below lists many of the different speed ratings currently being used for passenger car tyres. The speed rating is part of the tyre size designation on the sidewall of the tyre. This symbol corresponds to that tyre's designed maximum safe operating speed.

Speed Rating Symbol	Maximum Speed
P	150 km/h (93 mph)
Q	160 km/h (99 mph)
R	170 km/h (106 mph)
S	180 km/h (112 mph)
T	190 km/h (118 mph)
H	210 km/h (130 mph)
V	240 km/h (149 mph)
Z	Above 240 km/h (149 mph)

3. Checking tyre life (TIN : Tyre Identification Number)

Any tyres that are over 6 years old, based on the manufacturing date, (including the spare tyre) should be replaced by new ones. You can find the manufacturing date on the tyre sidewall (possibly on the inside of the wheel), displaying the DOT Code. The DOT Code is a series of numbers on a tyre consisting of numbers and English letters. The manufacturing date is designated by the last four digits (characters) of the DOT code.

DOT : XXXX XXXX 0000

The front part of the DOT means a plant code number, tyre size and tread pattern and the last four numbers indicate week and year manufactured.

For example:

DOT XXXX XXXX 1622 represents that the tyre was produced in the 16th week of 2022.

⚠ WARNING

Tyre age

Tyres degrade over time, even when they are not being used.

Regardless of the remaining tread, we recommend that tyres be replaced after approximately 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 tyre failure, which could lead to a loss of control and an accident involving serious injury or death.

4. Tyre ply composition and material

The number of layers or plies of rubber-coated fabric in the tyre. Tyre manufacturers also must indicate the materials in the tyre, 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 tyre. Do not exceed the maximum permissible inflation pressure. Refer to the Tyre 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 tyre. When replacing the tyres on the vehicle, always use a tyre that has the same load rating as the factory installed tyre.

7. Uniform tyre quality grading

Quality grades can be found where applicable on the tyre sidewall between tread shoulder and maximum section width.

For example:

TREADWEAR 200

TRACTION AA

TEMPERATURE A

Tread wear

The tread wear grade is a comparative rating based on the wear rate of the tyre when tested under controlled conditions on a specified government test course. For example, a tyre graded 150 would wear one-and-a-half times (1½) as well on the government course as a tyre graded 100.

The relative performance of tyres depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices and differences in road characteristics and climate.

These grades are molded on the sidewalls of passenger vehicle tyres. The tyres available as standard or optional equipment on your vehicle may vary with respect to grade.

Traction - AA, A, B & C

The traction grades, from highest to lowest, are AA, A, B and C. Those grades represent the tyre's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tyre marked C may have poor traction performance.

Temperature -A, B & C

The temperature grades are A (the highest), B, and C, representing the tyre's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel.

Sustained high temperature can cause the material of the tyre to degenerate and reduce tyre life, and excessive temperature can lead to sudden tyre failure. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

WARNING

The traction grade assigned to this tyre is based on straightahead braking traction tests, and does not include acceleration, cornering, hydroplaning, or peak traction characteristics.

WARNING

Tyre temperature

The temperature grade for this tyre is established for a tyre that is properly inflated and not overloaded. Excessive speed, underinflation, or excessive loading, either separately or in combination, can cause heat build-up and possible sudden tyre failure. This can cause loss of vehicle control and serious injury or death.

Low aspect ratio tyre (if equipped)

Low aspect ratio tyres, whose aspect ratio is lower than 50, are provided for sporty looks.

Because the low aspect ratio tyres are optimized for handling and braking, it

may be more uncomfortable to ride in and there is more noise compare with normal tyres.

CAUTION

Because the sidewall of the low aspect ratio tyre is shorter than the normal, the wheel and tyre of the low aspect ratio tyre is easier to be damaged. So, follow the instructions below.

- When driving on a rough road or off road, drive cautiously because tyres and wheels may be damaged. And after driving, inspect tyres and wheels.
- When passing over a pothole, speed bump, manhole, or kerb stone, drive slowly so that the tyres and wheels are not damaged.
- If the tyre is impacted, inspect the tyre condition or contact a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.
- To prevent damage to the tyre, inspect the tyre condition and pressure every 3,000 km (1,900 miles).

CAUTION

- It is not easy to recognize the tyre damage with your own eyes. But if there is the slightest hint of tyre damage, even though you cannot see the tyre damage with your own eyes, have the tyre checked or replaced because the tyre damage may cause air leakage from the tyre.
- If the tyre is damaged by driving on a rough road, off road, pothole, manhole, or kerb stone, it will not be covered by the warranty.
- You can find out the tyre information on the tyre sidewall.

Fuses

Standard



Main fuse



* Left side : Normal, Right side : Blown
A vehicle's electrical system is protected from electrical overload damage by fuses.

This vehicle has two fuse panels, one located in the driver's side fuse panel, the other at frame of the driver side. 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 melt.

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 immediately consult a professional workshop. Kia recommends to consult an authorised Kia dealer/service partner.

Two kinds of fuses are used: standard for lower amperage rating and main fuse for higher amperage ratings.

* NOTICE

The actual fuse/relay panel label may differ from equipped items.

⚠ 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.
- Do not arbitrarily modify or add on electric wiring of the vehicle.

⚠ 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

- When replacing fuse, turn the ignition "OFF" and turn off switches of all elec-

trical devices then remove battery (-) terminal.

- 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 a professional workshop. Kia recommends to consult an authorised Kia dealer/service partner.
- 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.
- Do not plug in screwdrivers or after-market wiring into the terminal originally designed for fuse and relays only. The electrical system and wiring of the vehicle interior may be damaged or burned due to contact failure.
- If you directly connect the wire on the taillight or replace the bulb which is over the regulated capacity to install trailers etc., the inner junction block can get burned.

⚠ CAUTION

Visually inspect the battery cap to ensure it is securely closed. If the battery cap is not securely closed, moisture may enter the system and damage the electrical components.

* NOTICE

Random wiring prohibited when retrofitting equipment

Use of random wiring in the vehicle might cause danger due to failure and damage of the vehicle's performance. Using random wires especially when retrofitting Infotainment System or theft alarm system, remote engine control, car phone or radio might damage the vehicle or cause fire.

* NOTICE

Remodeling Prohibited

Do not try remodeling the vehicle in any way. It is illegal, and may affect the vehicle's performance, durability, and safety. Warranty is also not provided for problems caused by remodeling.

Be aware of safety problems caused by remodeling the vehicle with unauthorised electrical devices (lamp, black box, electrical equipment, diagnostic device, communication device, etc.). It might cause malfunction of the vehicle, wiring damage, battery discharge, connector damage, or fire.

* NOTICE

Window tinting precaution

Window tint (especially metallic film) might cause communication disorder or poor radio reception, and malfunction of the automatic lighting system due to

excessive change of illumination inside the vehicle. The solution used might also flow into electric, electronic devices causing disorder and failure.

Inner panel fuse replacement

(Diesel) 2.7 VGT



(Diesel) 2.5 VGT



Main fuse box



1. Turn the ignition switch and all other switches off.
2. Pull the suspected fuse straight out. Use the removal tool (1) provided in the main fuse box.
3. Check the removed fuse; replace it if it is blown.

Spare fuses are provided in the fuse panel.

4. Push in a new fuse of the same rating, and make sure it fits tightly in the clips.

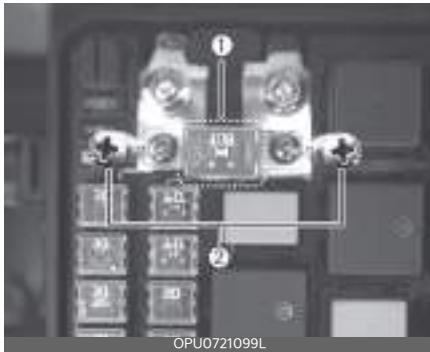
If it fits loosely, consult a professional workshop. Kia recommends to consult an authorised Kia dealer/service partner.

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 headlight or other electrical components do not work and the fuses are OK, check the fuse block in the MAIN FUSE BOX. If a fuse is blown, it must be replaced.

Main fuse replacement

(Diesel) 2.7 VGT



(Diesel) 2.5 VGT



If the MAIN (100A) fuse (1) is blown, it must be removed as follows:

1. Disconnect the negative battery cable.
2. Remove the main fuse box cover.
3. Remove the screws (2) 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.

⚠ CAUTION

Visually inspect the battery cap for secure closing. If the battery cap is not securely latched, the electrical system

may be damaged due to influx of moisture into the system.

* NOTICE

The main fuse box is located between front tyre and rear tyre on driver side.

Memory fuse replacement

(Diesel) 2.7 VGT



(Diesel) 2.5 VGT



Your vehicle is equipped with a memory fuse (1) to prevent battery discharge if your vehicle is parked without being operated for prolonged periods.

Use the following procedures before parking the vehicle for prolonged period.

1. Turn off the engine.

2. Turn off the headlights and tail lights.
3. Open the driver's side fuse panel cover and pull up the "MEMORY 15A".

* NOTICE

- If the memory fuse is pulled up from the fuse panel, the warning chime, audio, clock and interior lamps, etc., will not operate. Some items must be reset after replacement.
- Even though the memory fuse is pulled up, the battery can still be discharged by operation of the headlights or other electrical devices.

* NOTICE

The actual fuse panel label may differ from equipped items.

Fuse/relay panel description

Driver's side fuse panel



Inside the fuse/relay panel covers, you can find the fuse/relay label describing fuse/relay name and capacity.

* 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 panel in your vehicle, refer to the fuse panel label.

(Diesel) 2.7 VGT



OPU079058L

(Diesel) 2.5 VGT



OPU079059L

Driver's side fuse panel ((Diesel) 2.7 VGT

Fuse Name	Symbol	Fuse rating	Protected Component
START		10A	ECM (Electronic Control Module), Engine Room Junction Block (Start Relay)
AUDIO	AUDIO	15A	Audio
B/UP LAMP	B/UP LAMP	10A	Back-Up Lamp Switch, Reverse Parking Distance Warning (PDW) Buzzer
IG 1	IG1	10A	ECM (Electronic Control Module), Alternator, Vehicle Speed Sensor, Fuel Filter Warning Sensor, Fuel Injection Pump (JT)
MODULE 1	¹ MODULE	10A	Auto Light Sensor
CLUSTER	CLUSTER	10A	ETACM, Instrument Cluster
T/SIGNAL LAMP		10A	Hazard Switch, Multifunction Switch (Light)

Fuse Name	Symbol	Fuse rating	Protected Component
A/CON 1		10A	Heater Control Module, Engine Room Junction Block (Blower Relay)
MODULE 2		10A	Front Fog Lamp Relay, Head Lamp High Relay
MODULE 3		10A	Rear Fog Lamp Relay, Head Lamp Low Relay
WIPER		20A	Wiper Motor, Multifunction Switch (Wiper)
A/CON 2		10A	Heater Control Module, Heater Actuator Assembly, Blower Switch
C/ LIGHTER		15A	Cigarette Lighter
ACC	ACC	10A	Audio, Outside Mirror Switch
HLLD	HLLD	10A	Head Lamp Levelling Device Switch, Head Lamp Levelling Device Actuator Left Handle side/Right Handle side
DOOR LOCK		20A	ICM Relay Box (Door Lock Relay, Door Unlock Relay)
STOP LAMP	STOP LAMP	10A	Stop Signal Relay, Data Link Connector
REAR FOG LAMP		10A	Rear Fog Lamp Relay
FRONT FOG LAMP		15A	Front Fog Lamp Relay
LUMBAR SUPPORT	LUM-BAR SUP-PORT	10A	Driver Lumbar Support Switch
HEATED MIRROR		10A	ICM Relay Box (Outside Mirror Heated Relay)
HAZARD		15A	ICM Relay Box (Hazard Relay), Hazard Switch, Flasher Control Module
KEY ILLUMI	KEY ILLUMI	10A	Door Warning Switch

Fuse Name	Symbol	Fuse rating	Protected Component
TAIL LAMP LH		10A	Instrument Cluster, Audio, Clock Spring, AUX & USB Jack, Head Lamp Levelling Device Switch, Hazard Switch, Outside Mirror Defogger Switch, Heater Control Module, Power Window Main Switch, Passenger Power Window Switch, Rear Combination Lamp Left Handle side, Position Lamp Left Handle side, Head Lamp Left Handle side
TAIL LAMP RH		10A	Rear Combination Lamp Right Handle side, Position Lamp Right Handle side, Head Lamp Right Handle side, License Lamp, License Lamp (Dual)
HEAD LAMP LH		15A	Head Lamp Left Handle side
HEAD LAMP RH		15A	Head Lamp Right Handle side, Instrument Cluster, Fuse (HLLD)
MEMORY	MEMORY	15A	Fuse (AUDIO), ETACM, Instrument Cluster, Heater Control Module, Front Room Lamp, Centre Room Lamp

Relay ((Diesel) 2.7 VGT

Relay Name	Sym- bol	Type
Tail Lamp Relay		MICRO
Head Lamp Low Relay		MICRO
Front Fog Lamp Relay		MICRO
Rear Fog Lamp Relay		MINI
Head Lamp High Relay		MINI

Driver’s side fuse panel ((Diesel) 2.5 VGT)

Fuse Name	Symbol	Fuse rating	Protected Component
TAIL LAMP RH		10A	Instrument Cluster, Audio, Clock Spring, Hazard Switch, LPI Switch, AUX & USB Jack, Heater Control Module, DRL (Daytime Running Light) Control Module, Head Lamp Levelling Device Switch, Outside Mirror Defogger Switch, PTO Switch, TOP Control Connector, Power Window Main Switch, Passenger Power Window Switch, Rear Combination Lamp Right Handle side, Position Lamp Right Handle side, Head Lamp Right Handle side, License Lamp, License Lamp (Dual)
FRONT FOG LAMP		10A	Front Fog Lamp Relay
FRONT P/ WINDOW		25A	Power Window Main Switch, Passenger Power Window Switch
HEATED MIRROR 1		30A	Heated Mirror Relay
TAIL LAMP LH		10A	Rear Combination Lamp Left Handle Side, Position Lamp Left Handle Side, Head Lamp Left Handle Side, ESC (Electronic Stability Control) Off Switch
START		10A	Engine Room Junction Block (Start Relay), ECM (Electronic Control Module)
ACC	ACC	10A	Audio, Outside Mirror Switch
C/ LIGHTER		15A	Cigarette Lighter
STOP LAMP	STOP LAMP	10A	Stop Signal Relay, Stop Signal Electronic Module, Data Link Connector
DOOR LOCK		15A	Door Lock Relay, Door Unlock Relay
LUMBAR SUPPORT	LUMBAR SUPPORT	10A	Driver Lumbar Support Switch
AUDIO	AUDIO	10A	Not Used
A/CON 2		10A	Heater Control Module, Heater Actuator Assembly, Blower Switch, ECM (Electronic Control Module)

Fuse Name	Symbol	Fuse rating	Protected Component
A/CON 1		10A	Heater Control Module, Engine Room Junction Block (Blower Relay)
WIPER		20A	Wiper Motor, Multifunction Switch (Wiper)
T/SIGNAL LAMP		10A	Hazard Switch, Multifunction Switch (Light)
ECU		10A	ECM (Engine Control Module), Air Flow Sensor, Stop Lamp Switch, Glow Control Module
MEMORY	MEMORY	15A	Audio, Instrument Cluster, ETACM, Heater Control Module, Door Warning Switch, Tyre Pressure Monitoring Module, Front Room Lamp, Centre Room Lamp
MODULE 2	² MODULE	10A	DRL (Daytime Running Light) Unit, DRL (Daytime Running Light) Relay
MODULE 1	¹ MODULE	10A	Vehicle Speed Sensor, Fuel Filter Warning Sensor, Auto Light Sensor, Tyre Pressure Monitoring Module, Passenger Seat Belt Reminder Unit, Head Lamp Levelling Device Switch, Dosing Control Module, Head Lamp Levelling Device Actuator Left Handle side/Right Handle side
B/UP LAMP	B/UP LAMP	10A	Back-Up Lamp Switch, Reverse Parking Distance Warning (PDW) Buzzer
AIR BAG		15A	SRS (Supplemental Restraint System) Control Module
MODULE 3	³ MODULE	10A	Head Lamp High Relay, Instrument Cluster
REAR FOG LAMP		10A	Rear Fog Lamp Relay
CLUSTER	CLUSTER	10A	ETACM, Instrument Cluster, Alternator Resister
ABS		10A	ABS Control Module, ESC (Electronic Stability Control) Control Module, ESC (Electronic Stability Control) Off Switch, Diode, Steering Angle Sensor
A/BAG IND		10A	Instrument Cluster
HEATED MIRROR 2		10A	Outside Mirror Defogger Switch
FUEL HEATER		10A	Engine Room Junction Block (Fuel Heater Relay)
HEAD LAMP RH		15A	Head Lamp Right Handle side, DRL (Daytime Running Light) Relay

Fuse Name	Symbol	Fuse rating	Protected Component
HEAD LAMP LH		15A	Head Lamp Left Handle side, DRL (Daytime Running Light) Relay
HAZARD		15A	Hazard Relay, Hazard Switch, Flasher Control Module
DRL	DRL	15A	DRL (Daytime Running Light) Control Module

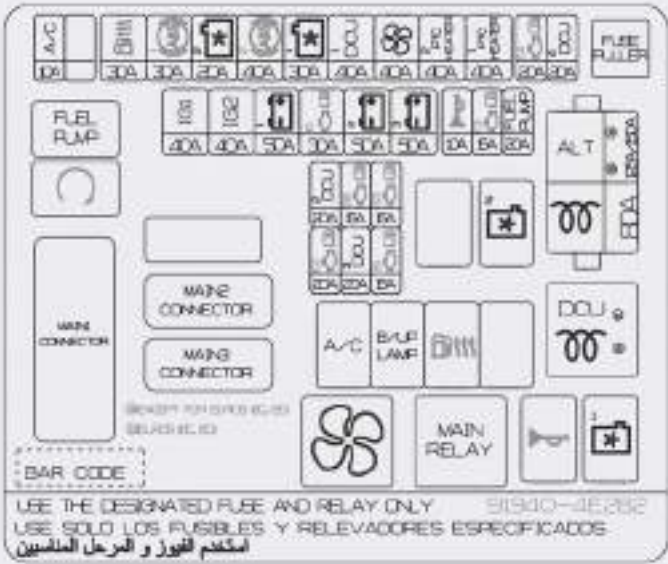
Main fuse panel



*** NOTICE**

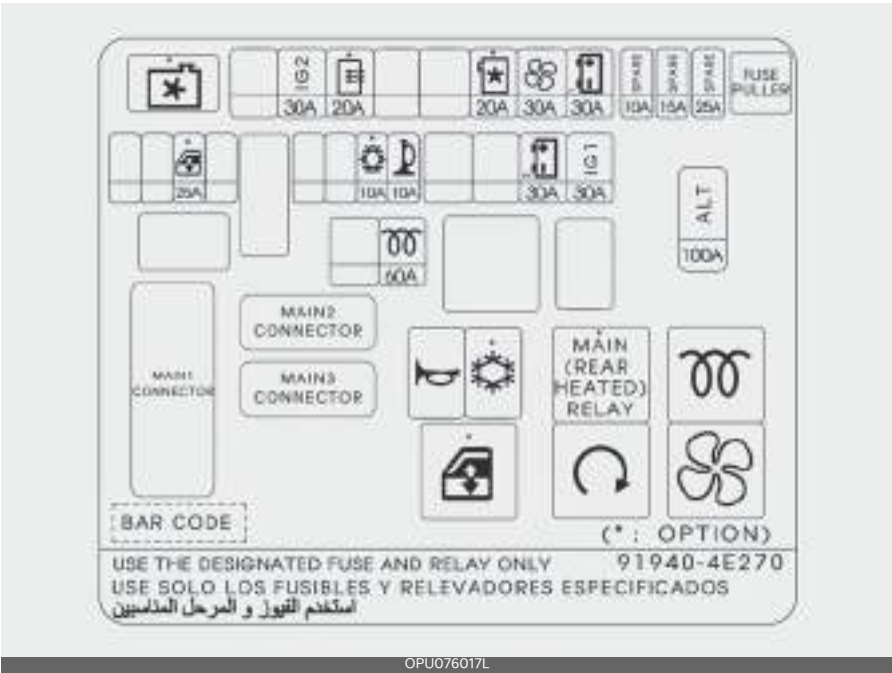
The actual fuse panel label may differ from equipped items.

(Diesel) 2.5 VGT



OPU0721061L

(Diesel) 2.7 VGT



OPU076017L

Main fuse panel ((Diesel) 2.7 VGT

Descri ption	Sym- bol	Fuse Name	Fuse rating	Protected Component
FUSE	ALT	ALT	100A	Alternator, Fuse - IG2/Rear Heated/Cooling Fan/ Blower/Battery1
	IG2	IG 2	30A	Ignition Switch
		RR HEATED	20A	Main (Rear Heated) Relay
		COOLING FAN	20A	Cooling Fan Relay
		BLOWER	30A	Blower Relay
	¹ 	BATT 1	30A	Power Window Relay, Instrument Panel Junc- tion Block (Fuse : Heated Mirror, Hazard, Key Illumi)
		P/WINDOW	25A	Power Window Main Switch, Passenger Power Window Switch
		A/C	10A	A/C Relay
		HORN	10A	Horn Relay
	² 	BATT 2	30A	Instrument Panel Junction Block (Tail Lamp Relay, Fuse - Rear Fog Lamp/Front Fog Lamp/ Lumbar Support/Door Lock/Stop Lamp, Power Connector Fuse -Memory)
	IG1	IG 1	30A	Ignition Switch, Start Relay
		GLOW	60A	Glow Relay

Relay ((Diesel) 2.7 VGT

Relay Name	Symbol	Type
Main (Rear Heated) Relay		MINI
Glow Relay		MINI
Start Relay		MINI
Blower Relay		MINI
Horn Relay		MICRO
A/C Relay		MICRO
Power Window Relay		MICRO
Cooling Fan Relay		MICRO

Main fuse panel ((Diesel) 2.5 VGT)

Descri ption	Sym- bol	Fuse Name	Fuse rating	Protected Component
FUSE	ALT	ALT	125A*1 150A* 2	Alternator, Fuse (A/CON/FUEL HEATER/ABS 1/ COOLING FAN 2/ABS 2/COOLING FAN 1/DCU 1/ BLOWER) *1. Without EURO 6/6C : 125A *2. With EURO 6/6C : 150A
		GLOW	80A	[Without EURO 6/6C] Glow Relay [With EURO 6/6C] Glow Control Module
	A/C	A/CON	10A	A/CON Relay
		FUEL HEATER	30A	Fuel Heater Relay
	¹ 	ABS 1	30A	ABS Control Module, ESC (Electronic Stability Control) Control Module
	² 	COOLING FAN 2	20A	Cooling Fan 2 Relay
	² 	ABS 2	40A	ABS Control Module, ESC (Electronic Stability Control) Control Module
	¹ 	COOLING FAN 1	30A	Cooling Fan 1 Relay
	¹ DCU	DCU 1	40A	[With EURO 6C] DCU Relay
		BLOWER	40A	Blower Relay
	^{E4} 	ECU 4	20A	[With EURO 6/6C] ECM (Engine Control Module)
	⁴ DCU	DCU 4	20A	[With EURO 6C] Dosing Control Module

Descri ption	Sym- bol	Fuse Name	Fuse rating	Protected Component
FUSE	IG1	IG 1	40A	Ignition Switch
	IG2	IG 2	40A	Ignition Switch, Start Relay
	¹ 	BATT 1	50A	Instrument Panel Junction Block (Fuse : HEATED MIRROR 1/STOP LAMP/DOORLOCK/LUMBAR SUPPORT, Power Connector Fuse : MEMORY)
	^{E1} 	ECU 1	30A	Main Relay
	² 	BATT 2	50A	Instrument Panel Junction Block (Fuse : FRONT FOG LAMP/ECU 2/AUDIO, Tail Lamp Relay, Power Window Relay)
	³ 	BATT 3	50A	Instrument Panel Junction Block (Head Lamp Low Relay, Fuse : AIR BAG/MODULE 3), Sub Junction Block (Fuse : H/LAMP HI, DRL)
		HORN	10A	Horn Relay
	^{E3} 	ECU 3	15A	ECM (Engine Control Module)
	FUEL PUMP	FUEL PUMP	20A	Fuel Pump Relay
	² DCU	DCU 2	20A	[With EURO 6C] Dosing Control Module
	^{S2} 	SENSOR 2	15A	Immobiliser Module, WGT Solenoid [Without EURO 6/6C] Stop Lamp Switch, Inlet Metering Valve [With EURO 6/6C] EGR Cooling Bypass Valve
	^{S3} 	SENSOR 3	15A	[With EURO 6/6C] PM Sensor, Lambda Sensor #1/#2 (EURO 6), Lambda Sensor (EURO 6), Front Nox Sensor, Rear Nox Sensor
	^{E2} 	ECU 2	20A	ECM (Engine Control Module) [With EURO 6/6C] Fuel Pump Relay, Inlet Metering Valve, Rail Pressure Regulator Valve
	³ DCU	DCU 3	20A	[With EURO 6C] Dosing Control Module
	^{S1} 	SENSOR 1	15A	Cooling Fan 2 Relay, A/C Relay, Glow Relay (without EURO 6/6C), Cooling Fan 1 Relay

Relay ((Diesel) 2.5 VGT)

Relay Name	Symbol	Type
Fuel Pump Relay		MICRO
Start Relay		MICRO
Cooling Fan 2 Relay		MICRO
A/C Relay		MICRO
Fuel Heater Relay		MICRO
Glow Relay (Without EURO 6/6C)		MINI
DCU Relay (With EURO 6C)		MINI
Blower Relay		MINI
Main Relay		MINI
Horn Relay		MICRO
Cooling Fan 1 Relay		MICRO

Light bulbs

Bulb replacement precaution

Please prepare bulbs with appropriate standards in case of emergencies. Refer to "Light bulbs" on page 9-9.

When changing bulbs and sorts, first turn off the engine at a safe place, firmly apply the side brake and take out the battery's negative (-) terminal.

 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.

 WARNING

Be sure to replace the burnedout bulb with one of the same wattage rating. Otherwise, it may cause extensive wiring damage and possible fire.

 CAUTION

If you don't have necessary tools, the correct bulbs and the expertise, consult a professional workshop. Kia recommends to consult an authorised Kia dealer/service partner.

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). Remov-

ing/ installing the headlight assembly can result in damage to the vehicle.

⚠ CAUTION

- If unauthentic parts or substandard lights are used when changing lights, it may lead to fuse disconnection and malfunction, and other wiring damages.
- Do not install extra lamps or LED to the vehicle. If supplementary lights are installed, it may lead to lamp malfunction and flickering of the lights. In addition, the fuse box and other wiring may be damaged.

• Lamp part malfunction due to network failure

The headlamp, taillight, and fog light may lit up when the head lamp switch is turned ON, and not light up when the taillight or for light switch is turned ON. This may be caused by network failure or vehicle electrical control system malfunction. If there is a problem, have the system serviced by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

• Lamp part malfunction due to electrical control system stabilization

A normally functioning lamp may flicker momentarily. This momentary occurrence is due to stabilization function of the vehicle's electrical control system. If the lamp soon returns to normal, the vehicle does not require service.

However, if the lamp goes out after the momentary flickering, or the flickering continues, have the system serviced by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

* NOTICE

After an accident or after the headlight assembly is reinstalled, have the headlight aiming adjusted by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

* NOTICE

You can find moisture inside the lens of lamps after a car wash or driving in the rain. It is a natural event caused by the temperature difference between the inside and the outside of the lamp and does not mean a problem with its functions. The moisture inside the lamp would disappear if you drive the vehicle with the headlamp turned on, however, the level at which the moisture is removed may differ depending on the size / location / condition of the lamp. If the moisture continues to stay inside the lamp, have the vehicle checked by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

Light bulb position (Front)



OPU0821008R

1. Front turn signal lamp (Bulb type)
2. Front fog lamp (Bulb type)
3. Headlamp (Low/High) (Bulb type)

4. Position lamp (Bulb type)

Light bulb position (Rear)

1. Left side :
Back-up lamp (Bulb type)
Right side :
Rear fog lamp (Bulb type)
2. Rear turn signal lamp (Bulb type)
3. Stop and tail lamp (Bulb type)

Light bulb position (Side)

1. Side repeater lamp (Bulb type)



2. Side repeater lamp (LED type)

**Position lamp (Bulb type) bulb replacement**

1. Open the bonnet.
2. Remove a headlamp assembly mounting bolt with a spanner.



3. Remove the bulb-socket from the headlamp assembly by turning the bulb-socket counterclockwise until the tabs on the bulb-socket align with the slots on the headlamp assembly.
4. Remove the bulb from the bulb-socket by pressing it in and rotating it counterclockwise until the tabs on the bulb align with the slots in the bulb-socket. Pull the bulb out of the bulb-socket.

5. Insert a new bulb by inserting it into the bulb-socket and rotating it until it locks into place.



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6. Install the socket in the headlamp assembly by aligning the tabs on the bulb-socket with the slots in the assembly. Push the bulb-socket into the headlamp assembly and turn the socket clockwise.

Headlamp (Low/High) (Bulb type) bulb replacement

1. Open the bonnet.
2. Remove a headlamp assembly mounting bolt with a spanner.



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3. Disconnect the power cord from the bulb base in the back of the headlamp.
4. Remove the dust cover (1).
5. Push the bulb spring to remove the headlamp bulb.
6. Remove the protective cap from the replacement bulb and install the new bulb by matching the plastic base with the headlight hole. Reattach the bulb spring and install the dust cover. Reconnect the power cord.
7. Use the protective cap and carton to dispose of the old bulb.
8. Check for proper headlamp aim.

* If it is difficult to replace light bulbs, have your vehicle checked by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

Headlamp bulb



⚠ WARNING

Halogen bulbs

- Halogen bulbs contain pressurized gas that will produce flying pieces of glass if broken.
- 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.

Front turn signal lamp (Bulb type) bulb replacement

1. Open the bonnet.
2. Remove a headlamp assembly mounting bolt with a spanner.



3. Remove the bulb-socket from the headlamp assembly by turning the bulb-socket counterclockwise until the tabs on the bulb-socket align with the slots on the headlamp assembly.



4. Remove the bulb from the bulbsocket by pressing it in and rotating it counterclockwise until the tabs on the bulb align with the slots in the bulb-socket. Pull the bulb out of the bulb-socket.
5. Insert a new bulb by inserting it into the bulb-socket and rotating it until it locks into place.
6. Install the socket in the headlamp assembly by aligning the tabs on the bulb-socket with the slots in the assembly. Push the bulb-socket into the headlamp assembly and turn the socket clockwise.

Front fog lamp (Bulb type) bulb replacement



1. Disconnect the negative (-) battery terminal.
2. Disconnect the side after loosening the front bumper sides screws and clips.
3. Disconnect the front fog lamp(1) connector.
4. Remove the socket from the assembly by turning the socket counterclockwise until the tabs on the socket align with the slots on the assembly.
5. Remove the bulb from the socket by pressing it in and rotating it counterclockwise until the tabs on the bulb align with the slots in the socket. Pull the bulb out of the socket.
6. Insert a new bulb by inserting it into the socket and rotating it until it locks into place.
7. Install the socket 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. Connect the front fog lamp connector.
9. Install the front bumper side assembly to the body of the vehicle.

Side repeater lamp (Bulb type) bulb replacement



1. Remove the lamp assembly from the vehicle by prying the lens and pulling the assembly out.
2. Disconnect the bulb electrical connector.
3. Separate the socket and the lens parts by turning the socket counterclockwise until the tabs on the socket align with the slots on the lens part.
4. Remove the bulb by pulling it straight out.
5. Insert a new bulb in the socket.
6. Reassemble the socket and the lens part.
7. Connect the bulb electrical connector.
8. Reinstall the lamp assembly to the body of the vehicle.

Side repeater lamp (LED type) bulb replacement



OPU079031

If the side repeater lamp (LED type) (1) does not operate, have your vehicle checked by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

The LED lamp cannot be replaced as a single component because it is an integrated unit. The LED lamp has to be replaced with the unit.

A skilled technician should check or repair the side repeater lamp (LED type), for it may damage related parts of the vehicle.

Rear combination lamp (Bulb type) bulb replacement



OPU0721029L

1. Press the lock tabs on the cover with your fingers and remove the cover.
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 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.
6. Install the cover.

License plate lamp (Bulb type) bulb replacement



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1. Loosen the lens retaining screws with a cross-tip screwdriver.
2. Remove the bulb from the socket by pressing it in and rotating it until the tabs on the bulb align with the slots in the socket. Pull the bulb out of the socket.

3. Insert a new bulb by inserting it into the socket and rotating it until it locks into place.
4. Install a new bulb.
5. Reinstall the lens securely with the lens retaining screws.

Map lamp (Bulb type) bulb replacement



⚠ WARNING

Prior to working on the Interior lamps, ensure that the “OFF” button is depressed to avoid burning your fingers or receiving an electric shock.

1. Using a flat-blade screwdriver, gently pry the lens cover from lamp housing.
2. Remove the bulb by pulling it straight out.
3. Install a new bulb in the socket.
4. Align the lens cover tabs with the lamp housing notches and snap the lens into place.

⚠ CAUTION

Be careful not to dirty or damage the lens, lens tab, and plastic housings.

Appearance care

Exterior care

*** NOTICE**

If you park the vehicle around a stainless signboard or windscreen building etc., the plastic exterior trim (bumper, spoiler, garnish, lamp, outside mirror etc.) may be damaged by reflected sunlight from the external structure. To avoid damaging the plastic exterior trim, park the vehicle away from the areas where the reflected light may occur or use a vehicle cover. (Depending on the vehicle, the type of exterior trim applied such as spoiler may differ.)

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 whilst driving slowly to see if they have been affected by water. If braking performance is impaired, dry the brakes by applying them lightly whilst maintaining a slow forward speed.

High-pressure washing

- When using high-pressure washers, make sure to maintain sufficient distance from the vehicle.
Insufficient clearance or excessive pressure can lead to component damage or water penetration.
- Do not spray the camera, sensors or its surrounding area directly with a

high pressure washer. Shock applied from high pressure water may cause the device to not operate normally.

- Do not bring the nozzle tip close to boots (rubber or plastic covers) or connectors as they may be damaged if they come into contact with high pressure water.



⚠ 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. Do not apply wax on embossed unpainted unit, as it may tarnish the unit.

CAUTION

- Wiping dust or dirt off the body with a dry cloth will scratch the finish.
- Do not use steel wool, abrasive cleaners, acid detergents or strong detergents containing high 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 brightmetal parts from corrosion, apply a coating of wax or chrome preservative and rub to a high luster.
- During winter weather or in coastal areas, cover the bright metal parts with a heavier coating of wax or pre-

servative. 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 the doors, rocker panels, and frame members have drain holes that should not clog with dirt; trapped water in these areas can cause rusting.

WARNING

After washing the vehicle, test the brakes whilst driving slowly to see if they have been affected by water. If braking performance is impaired, dry the brakes by applying them lightly whilst maintaining a slow forward speed.

Aluminum wheel maintenance

The aluminum wheels are coated with a clear protective finish.

- Do not use any abrasive cleaner, polishing compound, solvent, or wire brushes on aluminum 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 car wash brushes.
- Do not use any alkaline or acid detergent. It may damage and corrode the aluminum 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 longterm 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's surface by moisture that evaporate slowly.

Mud is particularly corrosive because it dries slowly and holds moisture in contact with the vehicle. Although the mud appears to be dry, it can still retain moisture and promote corrosion.

High temperatures can also accelerate corrosion of parts that are not properly ventilated so the moisture can be dispersed.

For all these reasons, it is particularly important to keep your vehicle clean and free of mud or accumulations of other materials. This applies not only to the visible surfaces but particularly to the underside of the vehicle.

To help prevent corrosion

You can help prevent corrosion from getting started by observing the following:

Keep your vehicle clean

The best way to prevent corrosion is to keep your vehicle clean and free of corrosive materials. Attention to the underside of the vehicle is particularly important.

- If you live in a high-corrosion area — where road salts are used, near the

ocean, areas with industrial pollution, acid rain, etc.—, you should take extra care to prevent corrosion. In winter, hose off the underside of your 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 and 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. If necessary, use a mixture of warm water and mild non-detergent cleaner (test all cleaners on a concealed area before use).

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 colour of the leather may fade or the surface may get stripped off.

Cleaning the upholstery and interior trim

Car interior surfaces

Remove dust and loose dirt from interior surfaces with a whisk broom or a vacuum cleaner. If necessary, clean interior surfaces with a mixture of warm water and mild non-detergent cleaner (test all cleaners on a concealed area before use).

Fabric

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 colour 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 a 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 of the rear window defroster grid.

Taking care of leather seats

- Vacuum the seat periodically to remove dust and sand on the seat. It will prevent abrasion or damage of the leather and maintain its quality.
- Wipe the leather seat cover often with dry or soft cloth.
- Sufficient use of a leather protective may prevent abrasion of the cover and helps maintain the colour. Be sure to read the instructions and consult a specialist when using leather coating or protective agents.
- Leather with bright colours (beige, cream beige) is easily contaminated and clear in appearance. Clean the seats frequently.
- Avoid wiping with wet cloth. It may cause the surface to crack.

Cleaning the leather seats

- Remove all contaminations instantly. Refer to instructions below for removal of each contaminant.
- Cosmetic products (sunscreen, foundation, etc.)

- Apply cleansing cream on a cloth and wipe the contaminated point. Wipe off the cream with a wet cloth and remove water with a dry cloth.
- Beverages(coffee, soft drink, etc.)
 - Apply a small amount of neutral detergent and wipe until contaminations do not smear.
- Oil
 - Remove oil instantly with absorbable cloth and wipe with stain remover for leather only.
- Chewing gum
 - Harden the gum with ice and remove gradually.

Fabric seat cover using precautions (if equipped)

Please clean the fabric seats regularly with a vacuum cleaner in consideration of fabric material characteristics. If they are heavily soiled with beverage stains, etc., use a suitable interior cleaner. To prevent damage to seat covers, wipe off the seat covers down to the seams with a large wiping motion and moderate pressure using a soft sponge or microfiber cloth.

Velcro closures on clothing or sharp objects may cause snagging or scratches on the surface of the seats. Make sure not to rub such objects against the surface.

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 Warranty & Maintenance book in your vehicle.

Your vehicle is equipped with an emission control system to meet all applicable emission regulations.

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 colourless and odourless, it is dangerous and could be lethal if inhaled. Follow the instructions on this page 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 the vehicle over or near flammable objects, such as grass, vegetation, paper, leaves, etc.
- The exhaust system and catalytic system are very hot whilst 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:

- Use diesel only.
- 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 min-

utes or more). Avoid idling the engine for periods longer than 10 minutes.

- Do not modify or tamper with any part of the engine or emission control system. All inspections and adjustments must be made by a professional workshop. Kia recommends to visit an authorised Kia dealer/service centre.
- Avoid driving with an extremely low fuel level. Running out of fuel could 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)

Type A

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 at low speed for long time, the accumulated soot may not be automatically removed because of low exhaust gas temperature. In this particular case, the amount of soot is out of detection limit, the soot oxidation process by engine control system may not happen

and the malfunction indicator light may blink.

When the malfunction indicator light blinks, it may stop blinking by driving the vehicle at more than 60 km/h (37 mph) or at more than second gear with 1500 ~ 2000 engine rpm for a certain time (for about 25 minutes).

If the malfunction indicator light continues to be blinked in spite of the procedure, have the system checked by a professional workshop. Kia recommends to visit an authorised Kia dealer/service partner.

If you continue to drive with the malfunction 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.

Type B

The Diesel Particulate Filter (DPF) system removes the soot in the exhaust gas.

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 at repeated short distance or driven at low speed for a long time, the accumulated soot may not be automatically removed because of low exhaust gas temperature. More than a certain amount of soot deposited, the malfunction indicator light (≡) illuminates.

When the malfunction indicator light blinks, it may stop blinking by driving the vehicle at more than 60 km/h (37 mph) or at more than second gear with 1500 ~ 2500 engine rpm for a certain time (for about 25 minutes).

If the malfunction indicator light (≡) continues to be blinked or the warning message "Check exhaust system" illuminates in spite of the procedure, visit a professional workshop and check the DPF system. Kia recommends to visit an authorised Kia dealer/service partner.

If you continue to drive with the malfunction 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.

EGR system (if equipped)

This system helps control oxides of nitrogen by recirculating a part of the

exhaust gas into the engine, there by reducing cylinder combustion temperature.

The EGR system helps reduce Nox (Oxides of Nitrogen) emission gasses.

Specifications & Consumer information

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Specifications & Consumer information

The specifications given here are for general information only. For more precise and more up-to-date information, we recommend that you check an authorised Kia dealer.

Dimensions

Item		1 Ton			
		Long Body	Extra Long Body		Long Body (High deck)
					2WD
		Standard cab	Standard cab	King cab	Standard cab
Overall length		4,825	5,125	5,115	4,825
Overall width		1,740	1,740	1,740	1,740
Overall height	(Diesel) 2.5 VGT	1,995	1,995	1,995	1,995
	(Diesel) 2.7 VGT	1,975	1,970	1,970	-
Front tread		1,490	1,490	1,490	1,490
Rear tread		1,340	1,340	1,340	1,460
Wheel base		2,415	2,615	2,615	2,415
Cargo deck	Length	2,810	3,110	2,860	2,810
	Width	1,630	1,630	1,630	1,630
	Height	355	355	355	355

Tyres

Engine		Body type		Front			Rear			Remarks
Fuel	Displacement (Litre)			Tyre	Inflation Pressure		Tyre	Inflation Pressure		
					kPa	psi		kPa	psi	
Diesel	(Diesel) 2.5 VGT	Low deck	Standard/King Cab.	195R15-8PR	310	45	5.00R12-8PR	390	57	
		High deck		195R15-8PR	345	50	195R15-8PR	390	57	
	(Diesel) 2.7 VGT	Low deck	Standard/King Cab.	195R14-6PR	310	45	5.00R12-8PR	390	57	
		High deck		195R14-8PR	310	45	195R14-8PR	390	57	

⚠ CAUTION

When replacing tyres, use the same size originally supplied with the vehicle. Using tyres of a different size can damage the related parts or make it work irregularly.

*** NOTICE**

- We recommend that when replacing tyres, use the same originally supplied with the vehicles. If not, that affects driving performance.
- When driving in high altitude grades, it is natural for the atmospheric pressure to decrease. Therefore, please check the tyre pressure and add more air when necessary. Additionally required tyre air pressure per km above sea level: 1.5psi/km

Load capacity and speed rating for each tyres

Item			Front					Rear					OEM Tyre Maker
			Tyre	Load Capacity		Speed rating		Tyre	Load Capacity		Speed rating		
			Front	Li ^{*1}	Kg	SS ^{*2}	Km/h	Rear	Li ^{*1}	Kg	SS ^{*2}	Km/h	
(Diesel) 2.5 VGT	Low-deck	Standard cab. King cab.	195R15-8PR	106 (Single)	950	R	170	5.00R12-8PR	82 (Dual)	475	P	150	Han-kook/ Kumho
	Highdeck		195R15-8PR	106 (Single)	950	R	170	195R15-8PR	106 (Single)	950	R	170	Han-kook/ Kumho
(Diesel) 2.7 VGT	Low-deck	Standard cab. King cab.	195R14-6PR	102 (Single)	850	R	170	5.00R12-8PR	82 (Dual)	475	P	150	Han-kook/ Kumho
	Highdeck		195R14-8PR	106 (Single)	950	R	170	195R14-8PR	106 (Single)	950	R	170	Han-kook/ Kumho

*1. Load Index
*2. Speed Symbol

Wheel

Item				Front	Rear	Wheel lug nut torque kgf·m (lbf·ft, N·m)
	Engine	Material		Steel	Steel	
Wheel	(Diesel) 2.5 VGT	Low deck: Standard cab King- cab	Size	5.5JX15	3.5JX12	Front&Rear 19.0-22.0 (137~159,186~216)
			Off- set(mm)	42	87.5	
			PCD(mm)	139.7	145	
		Highdeck	Size	5.5JX15	5.5JX15	
			Off- set(mm)	53	53	
			PCD(mm)	160	160	
	(Diesel) 2.7 VGT	Low deck: Standard cab King- cab	Size	5JX14	3.5JX12	Front 9.0-12.0 (65~87,88~118) Rear 19.0~22.0 (137~159,186~216)
			Off- set(mm)	35	87.5	
			PCD(mm)	139.7	145	
		Highdeck	Size	5JX14	5JX14	Front&Rear 19.0-22.0 (137~159,186~216)
			Off- set(mm)	42	42	
			PCD(mm)	160	160	

Capacities

Lubricant				Volume	Classification
Engine oil ^{*1, *2} (drain and refill)  	(Diesel) 2.5 VGT	with DPF		7.4 L (7.8 US qt.)	ACEA C2 ^{*3}
		without DPF			ACEA B4 ^{*3}
		(Diesel) 2.7 VGT	2WD		6.4 L (6.8 US qt.)
Engine oil consumption	Normal driving condition			MAX. 1 L /1500 km	-
	Severe driving condition			MAX. 1 L / 1000 km	-
Manual transmission fluid	(Diesel) 2.5 VGT			2.2 ~ 2.3 L (2.3 ~ 2.4 US qt.)	HK MTF (SK), HD MTF (SHELL) Kia GENUINE PARTS MTF SAE75W/85 (API GL-4)
	(Diesel) 2.7 VGT			2.2 ~ 2.3 L (2.3 ~ 2.4 US qt.)	
Transfer case fluid (if equipped)				1.2 L (1.27 US qt.)	HK MTF(SK), HD MTF(SHELL), Kia GENUINE PARTS MTF SAE 75W/85 (fill for-life), API SERVICE GL-4
Differential fluid	Axle maker :Hyundai Wia	(Diesel) 2.7 VGT	ALL (With LD, Without LD)	1.6 L (1.7 US qt.)	Differential Oil API Service GL-5 (SAE 90)
			With LSD	1.3 L (1.4 US qt.)	LSD OIL API Service GL-5 (SAE 85W-90)
	Axle maker : SeAH Besteel Corp.	(Diesel) 2.7 VGT	Without LSD	1.3 L (1.4 US qt.)	Differential Oil API Service GL-5 (SAE 90)
			(Diesel) 2.5 VGT	ALL (With LD, Without LD)	
Power steering fluid				1.1 L ~1.2 L (1.2 ~ 1.3 US qt.)	PSF-4

Lubricant		Volume	Classification
Coolant	(Diesel) 2.5 VGT	12.6 L (13.3 US qt.)	Ethylene glycol base for aluminum radiator
	(Diesel) 2.7 VGT	11.2 L (11.8 US qt.)	
Brake/clutch fluid*4		0.35 L (0.37 US qt.)	SAE J1704 DOT4 LV, ISO4925 CLASS-6, FMVSS116 DOT-4 or DOT-3
Fuel	(Diesel) 2.7 VGT	60 L (15.9 US gal)	-
	(Diesel) 2.5 VGT	65 L (17.2 US gal)	

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

*3. ACEA certificated engine oil must be used as service engine oil. Only in case that ACEA engine oil is not available, engine oil above API CJ-4 is allowed restrictively.

*4. To maintain your vehicle’s best brake and ABS/ESC performance, use Kia genuine brake fluid as in the specification.

Recommended SAE viscosity number

* NOTICE

Always be sure to clean the area around any filler plug, drain plug, or dipstick before checking or draining any lubricant. This is especially important in dusty or sandy areas and when the vehicle is used on unpaved roads. Cleaning the plug and dipstick areas will prevent dirt and grit from entering the engine and other mechanisms that could be damaged.

Engine oil viscosity (thickness) has an effect on fuel economy and cold weather operating (starting and oil flow). 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	(Diesel)	15W-40								
	2.5 VGT/	10W-30, 10W-40								
	(Diesel)	5W-30, 5W-40								
	2.7 VGT	0W-30 ^{*1} , 0W-40								

* 1. It is only for extreme cold area and to be restricted by driving condition and area.(Especially, not recommended for sustained high loaded and high speed operation.).

Light bulbs

Light Bulb			Wattage	Bulb type
Front	Headlamp (Low/High)		55/60	H4
	Front turn signal lamp		21	PY21W
	Front fog lamp *		35	H8
	Position lamp		5	W5W
	Side repeater lamp	Bulb type	5	W5W
		LED type	LED	LED
Rear	Rear turn signal lamp		27	PY27W
	Stop and tail lamp		27/8	PY27/8W
	Back-up lamp		27	P27W
	Rear fog lamp *		21	P21W
	License plate lamp		10	W10W
Interior	Map lamp		8	FESTOON

* If equipped

Vehicle identification number (VIN)

Type A



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

The vehicle identification number is the attached as shown in the illustration.

⚠ WARNING

The film is on VIN (Type A) for preventing damage.

Do not detach this film at any reason.

VIN label

Type B (if equipped)



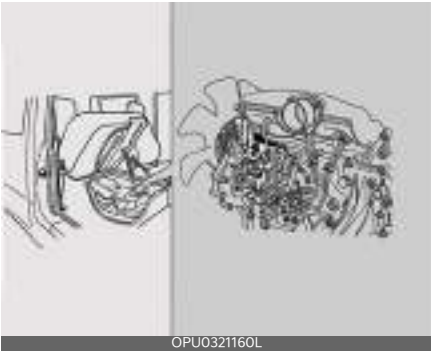
The VIN is also on a plate attached to the frame on the driver's side.

Engine number

(Diesel) 2.5 VGT



(Diesel) 2.7 VGT



The engine number is stamped as shown in the above illustration. The engine number is an important number in determining the history of the engine.

Declaration of conformity



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 Kia web site as follows;
<http://www.kia-hotline.com>

A

Abbreviation

CRS

Child Restraint System

EBD

Electronic Brake force Distribution

MDPS

Motor Driven Power Steering

MIL

Malfunction Indicator Lamp

PDW

Reverse Parking Distance Warning

SRS

Supplemental Restraint System

SRSCM

SRS Control Module

TBT

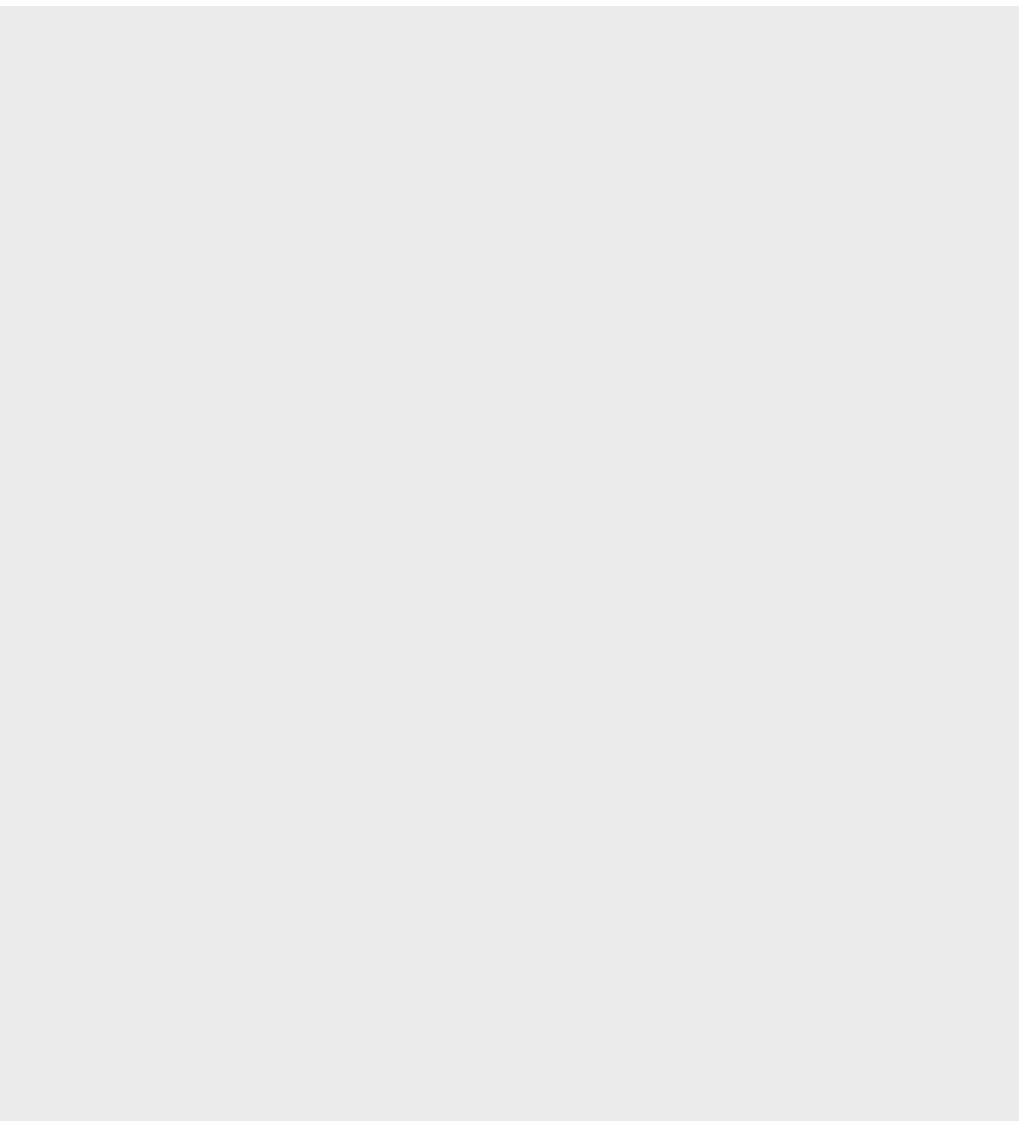
Turn By Turn

TIN

Tyre Identification Number

VIN

Vehicle Identification Number



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