GAC MOTOR

EMKOO

Hybrid

Owner's Manual

Foreword

Thanks for choosing the vehicle manufactured by GAC MOTOR CO.,LTD. (hereinafter referred to as “GAC Motor”). For a better driving pleasure, please read the Owner’s Manual carefully. This manual allows you to fully understand the operation methods and precautions of the vehicle. Proper operation of the vehicle can improve driving safety and prolong the service life of the vehicle.

The Warranty Manual supplied with the vehicle clearly describes the warranty services provided by GAC Motor and the regular maintenance of the vehicle. Please read this manual carefully to know your rights and responsibilities.

After reading this manual, please store it with the vehicle for future reference.

In case of any doubts about this manual, please contact the GAC Motor authorized shop for detailed explanation.

If you have any suggestions or recommendations, please contact GAC Motor through the customer service hotline: 400-158-9999.

We are grateful for your support and love for GAC Motor. Have a nice drive!

GAC MOTOR CO.,LTD.

Safety Instructions

The safety of you and the passengers is crucial, so driving safely is an important responsibility of the driver.

In order to make clear the safety precautions, we provide operation steps and precautions through the various signs on the vehicle and this manual, reminding you to pay attention to the potential dangers that will hurt you or the passengers.

It is impossible to list all the precautions for danger related to operation and maintenance of the vehicle in the manual, so it is up to you to make the correct judgment in time.

Safety instructions are available in many forms, including:

- **Safety signs** - pasted on the vehicle.
- **Safety notes** - the texts marked with the symbols  ,  ,  and one of the three words "**WARNING**", "**CAUTION**", or "**NOTE**" in front.

⚠ **WARNING**	Very important instructions of which the nonobservance can cause casualties.
CAUTION	Important instructions of which the nonobservance can cause damage to the vehicle.
NOTE	General instructions of which the nonobservance could not cause injuries.

- Some paragraphs of this manual do not apply to all vehicle models. For the description of options, the title of them is followed by the symbol "*".
- Unless otherwise specified, the directions of the vehicle (front, rear, left and right) referred to in this manual are based on the traveling direction of the vehicle.

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◆ **Be sure to fasten the seat belt properly**

The seat belt is the best protection device in the event of a collision. Airbags are only designed as auxiliaries, rather than replacements, of the seat belts, so even if the vehicle is equipped with airbags, make sure that you and the passengers always fasten the seat belts correctly.

◆ **Do not leave children unattended in the vehicle**

Do not leave children in an unattended vehicle, as injury or even death may occur if they trigger a control device accidentally, or when the vehicle is moved accidentally and collided with other objects due to their mis-operation, and besides, the temperature inside the vehicle may reach an extreme condition, depending on the ambient temperature.

◆ **Protect all children**

Children aged 12 or under should be properly restrained in the rear seats rather than the front seats. Child safety seats shall be used for infants and toddlers; Child safety seats and three-point seat belts shall be used for older children, until it can be assured that they can fasten the seat belts properly (without booster seats).

◆ **Beware of danger of airbag**

Airbags can save lives, but they can also cause serious or fatal injuries to occupants who are too close to the airbags or improperly restrained.

Airbags pose the greatest risk to infants, toddlers and short adults, so please follow all instructions and warnings in this manual.

◆ **Never drive after drinking**

Drinking alcohol, even a little, will reduce your response capability, and your reaction time after drinking will become longer, so drinking and driving is strictly prohibited.

◆ **During driving, please abide by the road traffic safety laws and yield to pedestrians.**

◆ **Be sure to pay attention to driving safety.**

Traffic accident will occur if you are busy answering the phone or handling other things so that you can not pay attention to road conditions, other traffics and pedestrians during driving. Please avoid distraction during driving.

◆ **Control the vehicle speed**

Excessive speed is one of the main causes of traffic accidents. The faster the speed is, the greater the risk will be. Therefore, please choose the appropriate speed for safe driving according to the actual road conditions.

◆ **Perform regular maintenance**

Tire burst or mechanical failure is very dangerous. In order to reduce the possibility of such problems, please check the tire pressure and status frequently, and carry out regular maintenance as specified in the Warranty Manual.

Event data recorder (EDR)

This vehicle is equipped with an event data recorder (EDR). The EDR is mainly designed to record data in the event of certain collisions (such as airbag deployment or collision with a barrier), so as to help understand the operation of the vehicle system. EDR is specially used to record data related to vehicle dynamic control and safety systems in a short period of time. However, depending on the severity and type of collision, data may not be recorded.

The data specially recorded by the EDR of this vehicle include:

- The status of driver depressing the brake pedal (if applicable).
- The vehicle speed.
- The longitudinal acceleration.
- The VIN.

These data help better understand the situation in the event of a collision and personal injury, and are used to assist accident analysis.

NOTE

The EDR will record data only when a certain degree of collision occurs to the vehicle; EDR will not record data during normal driving.

EDR data disclosure

GAC Motor will not disclose the data recorded in the EDR to third parties except:

- Reaching an agreement with the owner (or the lessee of the rental vehicle).
- At the official request of the police, courts or government agencies.

If necessary, the data will be used in:

- research on vehicle safety performance.

How to obtain EDR data reading tools

Special technical equipment is required to read EDR data. For more information, please contact GAC Motor authorized shop.

Hybrid electric vehicle

As a hybrid electric vehicle, this vehicle is different from conventional vehicles in terms of characteristics. Be familiar with the characteristics of this vehicle and operate it with caution. Please read this manual carefully and follow the safety instructions for the hybrid system.

Power battery

The traction battery has a limited life. For maintenance, repair, removal, installation, reuse or disposal of the traction battery, it is recommended to consult the GAC Motor authorized shop.

When the traction battery needs to be replaced or scrapped, always contact the GAC Motor authorized shop for recycling. If the traction battery is not handled correctly, electric shock and serious injury or even death may be caused. The removal, disassembly and discarding of the traction battery without authorization will cause pollution to the environment, and the vehicle owner shall bear the corresponding responsibility for the environmental pollution or safety accidents arising therefrom.

Scrapping of vehicle

When the vehicle must be scrapped, it is recommended to contact the GAC Motor authorized shop for recycling. If you touch high-voltage parts, cables and their connectors and other high-voltage components when removing the traction battery without authorization during vehicle scrapping, there may be a serious risk of electric shock.

Warning about high voltage

The vehicle is equipped with a high-voltage circuit system and a 12V low-voltage circuit system. High-voltage direct current and high-voltage alternating current are very dangerous and may cause serious burns and electric shock, resulting in serious injury or even death.

Therefore, do not touch, disassemble, remove or replace high-voltage parts, cables and their connectors.

The temperature of the high-voltage system is high when the vehicle is being started or immediately after the vehicle is shut down. Therefore, be cautious of high-voltage current and high temperature, and follow the warnings on the warning sign.

Warning about traffic accident

Do not touch exposed cables for fear of electric shock and serious injury.

If the vehicle smokes, please leave the vehicle as soon as possible.

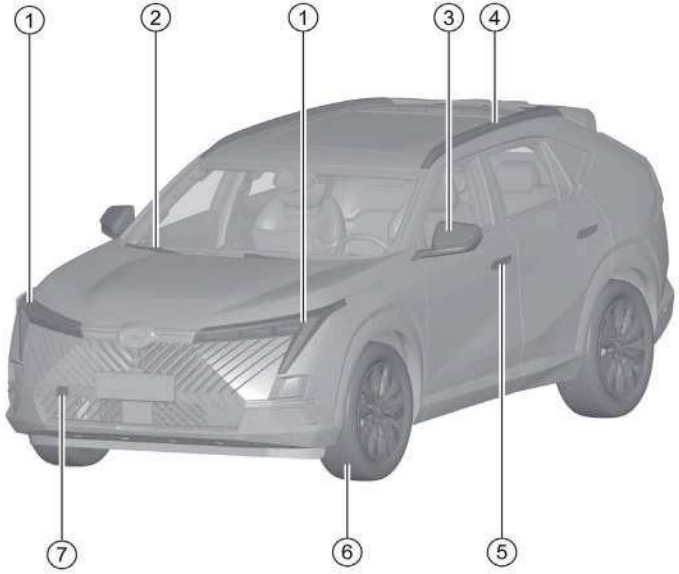
In the event of a traffic accident, always get the vehicle towed, if necessary, by the professional. => See page 284

i NOTE

Keep the front wheels off ground during towing, otherwise, the transmission and drive shaft are likely to be damaged.

3. Picture index

3.1 Exterior



① Front combination lamp
- Turning on lamps => See page 85
- Replacing bulb => See page 251
- Specifications of front combination lamp bulb => See page 266

② Front wiper
- Replacing front windshield wiper blade => See page 245

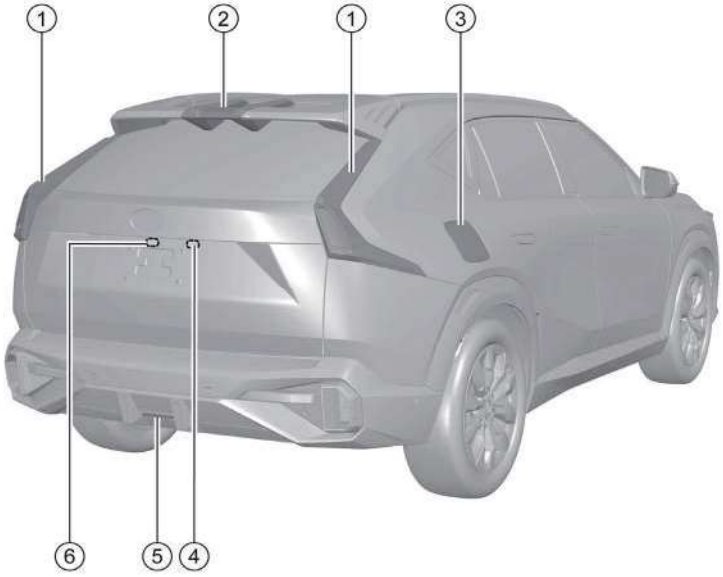
③ Exterior rearview mirror
- Side turn signal lamp => See page 85
- Specifications of side turn signal lamp => See page 266

④ Roof rack => See page 112

⑤ Door lock hole => See page 66

⑥ Wheel => See page 251

⑦ Front towing hook => See page 285



① Rear combination lamp
- Specifications of rear combination lamp bulb => See page 266

② High-mounted stop lamp
- Specifications of high-mounted stop lamp => See page 266

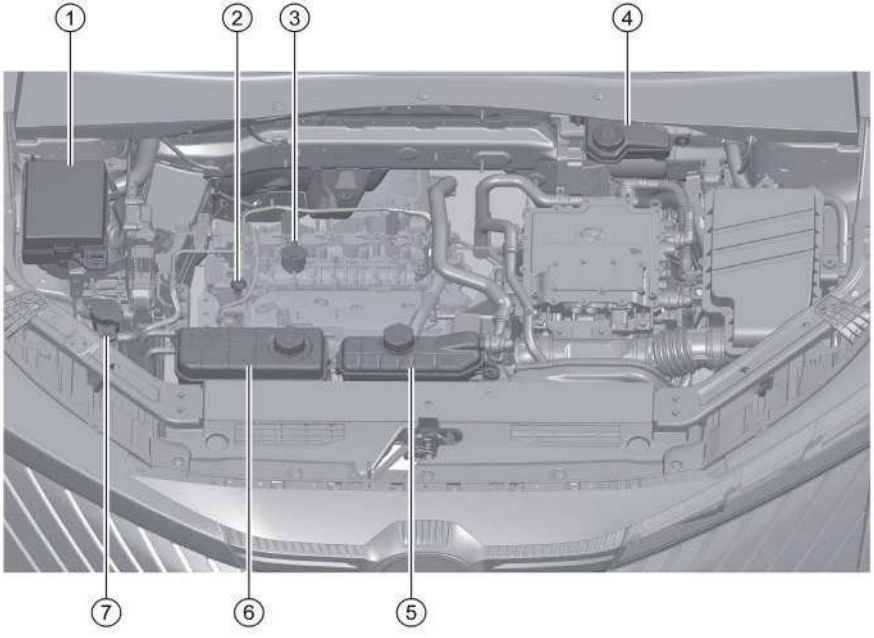
③ Fuel tank flap => See page 237

④ Liftgate opening button => See page 73

⑤ Rear fog lamp and reverse lamp
- Specifications of rear fog lamp => See page 266
- Specifications of reverse lamp => See page 266

⑥ License plate lamp
- Specifications of license plate lamp => See page 266

3. Picture index



Engine compartment

① Engine compartment electrical box => See page 279

② Oil dipstick => See page 240

③ Oil filler cap => See page 241

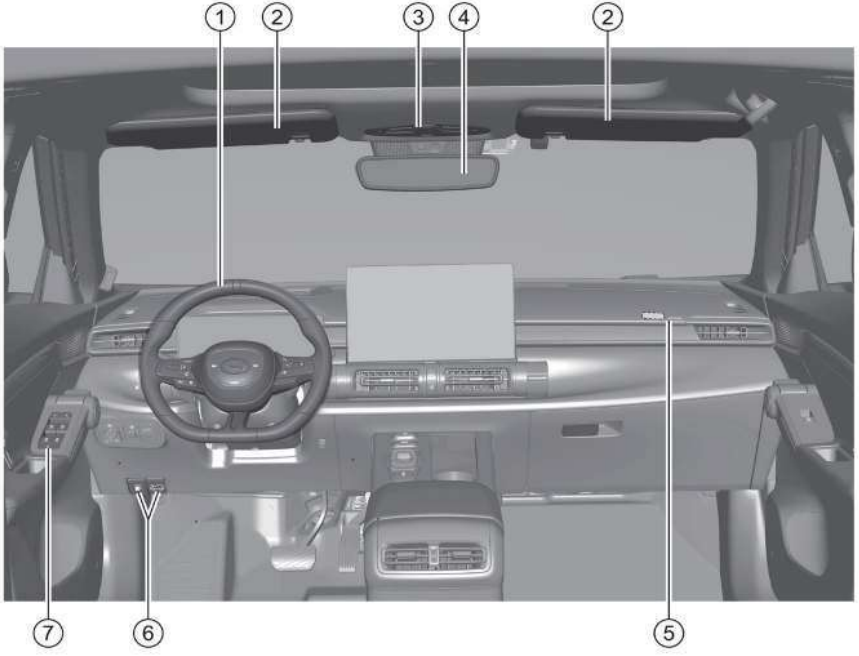
④ Brake fluid reservoir => See page 247

⑤ Coolant expansion tank of electromechanical coupling cooling system => See page 242

⑥ Engine coolant expansion tank => See page 242

⑦ Windshield washer fluid reservoir => See page 244

3.2 Interior



① Steering wheel => See page 43
- Buttons on steering wheel => See page 44
- Driver's frontal airbag => See page 19

② Sun visor => See page 98

③ Front dome lamp => See page 90
- Electric sunshade control button => See page 81
- Emergency rescue service button* => See page 137

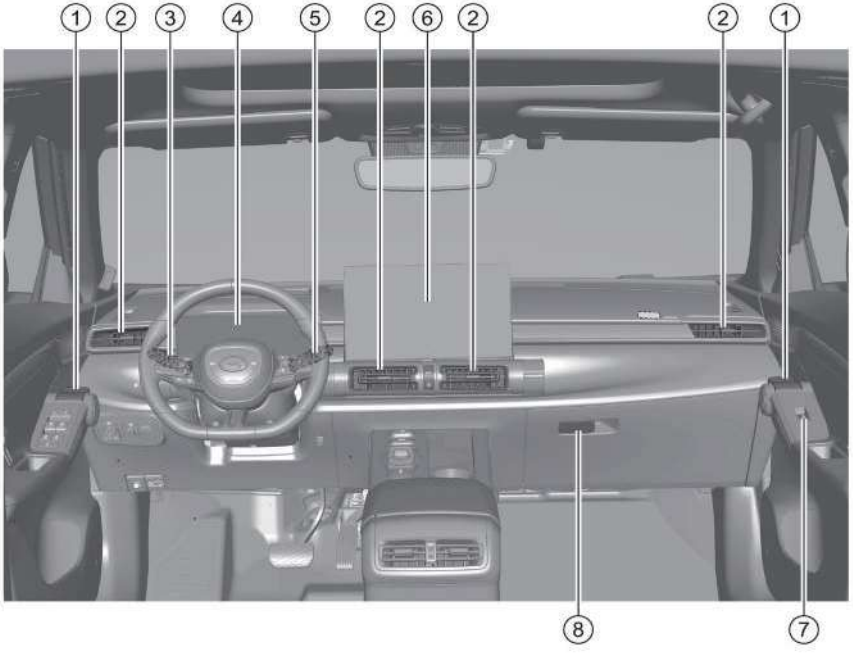
④ Rearview mirror => See page 96

⑤ Front passenger's frontal airbag => See page 20

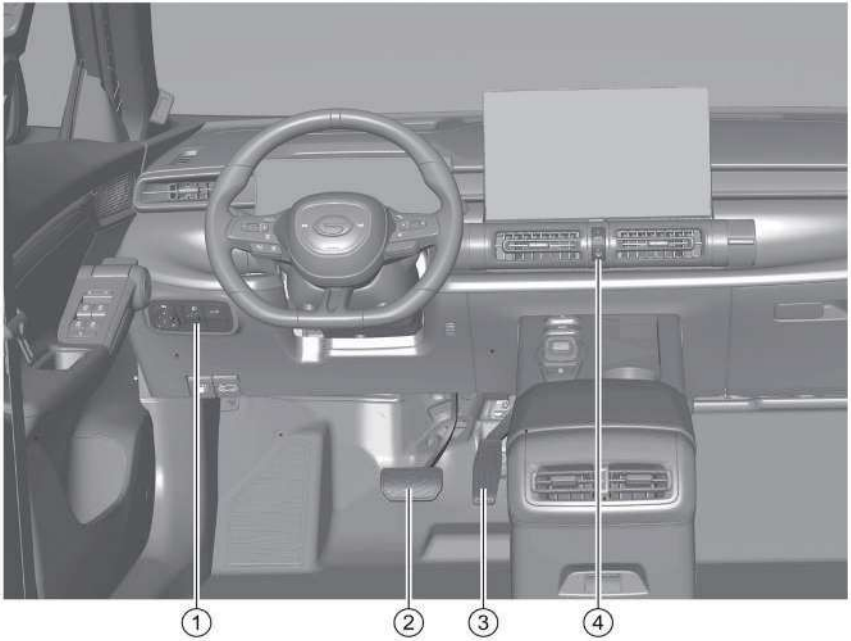
⑥ Engine hood release handle => See page 77
- Fuel tank flap opening handle => See page 237

⑦ Driver's side power window control button => See page 79
- Central locking control button => See page 65

3. Picture index



① Inside handle => See page 65
② A/C air outlet => See page 121
③ Lamplight combination switch => See page 85
④ Instrument cluster => See page 45
- Indicator lamp => See page 55
⑤ Wiper combination switch => See page 93
⑥ AV system => See page 123
⑦ Passenger's power window control button => See page 80
⑧ Glove box opening handle => See page 104



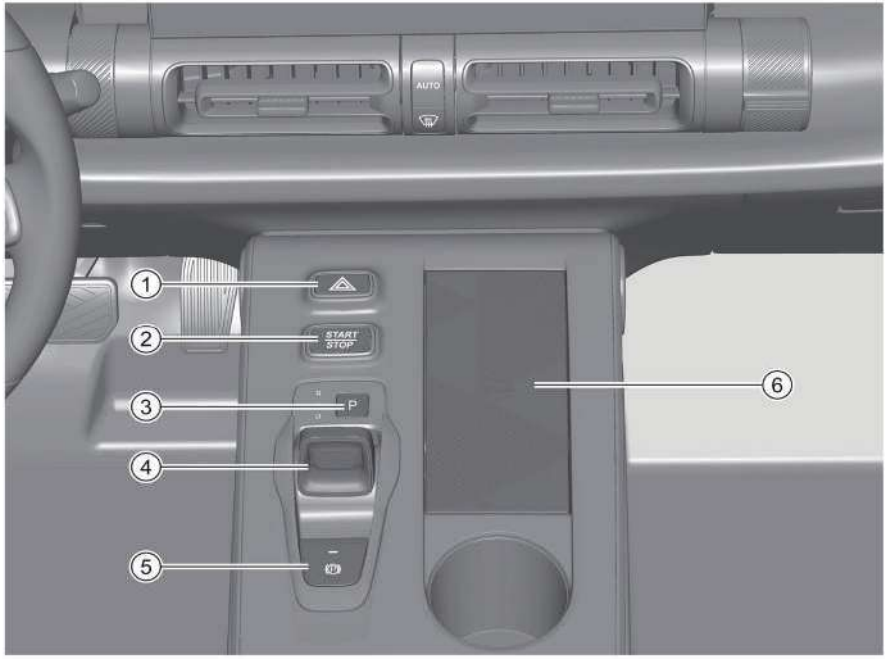
① Instrument left switch group
- Exterior rearview mirror folding button* => See page 97
- Exterior rearview mirror adjusting button => See page 96
- Manual headlamp leveling knob => See page 88
- Liftgate button => See page 73

② Brake pedal

③ Accelerator pedal

④ A/C control buttons => See page 117

3. Picture index



① Hazard warning lamp switch button => See page 89
② START/STOP button => See page 138
③ P gear button => See page 141
④ Transmission gearshift lever => See page 141
⑤ EPB button => See page 147
⑥ Mobile phone wireless charging area* => See page 107

4.1 Safe driving

4.1.1 General description

This section introduces important information, operating essentials, recommendations and safety precautions for safe driving. For the safety of you and the passengers, please read carefully and follow the relevant regulations.

NOTE

Please always keep the Owner's Manual in the vehicle. If you lend or resell the vehicle to someone else, be sure to hand the complete set of accompanying documents over to the new owner.

The following inspections must be carried out before driving:

- Check that all lamps are working properly.
- Check that the fuel level is normal.
- Check that the coolant level is normal.
- Check that the brake fluid level is normal.
- Confirm that the oil level is normal.
- Check that the windshield washer fluid level is normal.
- Check that the tire pressure is normal.
- Check that the engine hood is closed and locked properly.
- Check that all windows are clear and have a good view.
- Check that no objects obstruct the movement of the driver's foot pedals.
- Adjust the seat, head restraint and rearview mirror according to your body height and shape.
- Use appropriate child safety seats to protect children and help them fasten the seat belts correctly.
- Fasten the seat belt correctly and remind all passengers in the vehicle to fasten the seat belts correctly.

⚠ WARNING

When installing the driver's floor mat, please observe the following precautions:

- **Do not overlap two or more floor mats.**
- **Do not make the bottom surface of the floor mat upward or back-to-front.**
- **Do not use floor mats that are incompatible with this model.**

CAUTION

- Do not distract yourself from external factors during driving.
- Do not drive the vehicle when your response capability reduces, such as due to medicines, alcohol, or drugs.
- Strictly abide by traffic regulations.

4.1.2 Correct sitting posture of the driver and passengers

Correct sitting posture of the driver

The driver's sitting posture directly affects his/her fatigue level and driving safety. Before driving, the driver should:

- Sit up straight and adjust the seat back to a suitable position so that the back fits completely the seat back.
- Adjust the seat position so that all pedals can be operated effectively with slightly bent legs.
- Correctly adjust the seat headrest. => See page 99
- Fasten the seat belt correctly. => See page 16
- Adjust the steering wheel position. => See page 43

⚠ WARNING

Do not adjust the seat, headrest or steering wheel during driving; otherwise the vehicle may be out of control, leading to an accident.

Correct sitting posture of the passengers

To guarantee the safety of the passengers and reduce the risk of casualties, the passengers should:

- Sit up straightly and adjust the headrest of the seat correctly. => See page 99
- The front passenger should adjust the distance between the seat and the instrument panel as desired.
- The front passenger should adjust the seat back to a suitable position so that the back fits completely the seat back.
- Fasten the seat belt correctly. => See page 16
- The passenger should place both feet on the floor.
- Use appropriate child safety seat in accordance with applicable regulations for children. => See page 26

⚠ WARNING

- **It is forbidden to install a child safety seat in the front passenger's seat.**
- **If the front passenger is too close to the instrument panel, the SRS will not provide effective protection.**
- **When the vehicle is running, be sure to maintain a correct sitting posture and fasten the seat belt correctly, so as to avoid unexpected injuries in case of emergency braking or accidents.**

4.2 Seat belt

4.2.1 Why must you fasten the seat belt

Protection of the driver and passengers by seat belts

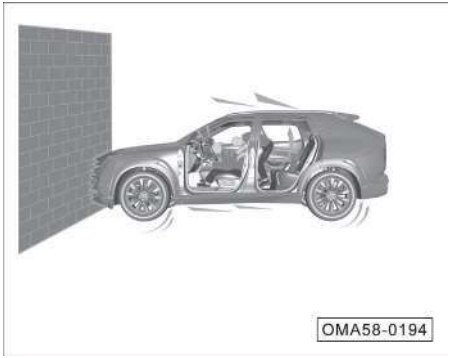
In the event of a vehicle collision, the seat belt, if fastened correctly, can restrain the driver and passengers in a proper position and slow down the inertia of their forward movement, thus preventing them from being thrown forward, and at the same time allows airbags to give their best protection, thus reducing their impact injury as much as possible.

In the event of a collision, the seat belt will assist other safety systems in simultaneously absorbing the energy generated by the collision, further reducing the injuries suffered by the driver and passengers.

⚠ WARNING

Airbags cannot replace seat belts. Regardless of whether the car is equipped with airbags, the seat belts should be worn correctly.

Consequences of not fastening the seat belt



In the event of a collision, the driver or passenger who does not fasten the seat belt will be thrown forward due to inertia and thereby injured.

Even if the vehicle speed is very low, the force acting on the human body in the event of a collision is so great that the occupant cannot control his or her body with hands at all. In that case, the occupant who does not fasten the seat belt will be thrown forward, and injured if colliding with any interior objects.

Rear passengers must also fasten the seat belts correctly, otherwise they will be thrown forward when an accident occurs. The passenger who does not fasten the seat belt will not only hurt himself or herself, but also endanger other occupants in the vehicle.

4.2.2 Seat belt

Seat belt indicator lamp

: Driver's seat belt indicator lamp

: Front passenger's seat belt indicator lamp

The following alarms will be triggered when the vehicle START/STOP button is set to "ON" position:

- When the vehicle speed is lower than 20 km/h, if the driver or front passenger does not fasten the seat belt, the corresponding indicator lamp in the instrument cluster will flash for several seconds and stay on.
- When the vehicle speed is 20 km/h or higher, if the driver or front passenger does not fasten the seat belt, the corresponding indicator lamp in the instrument cluster will flash for a period of time and stay on, accompanied by an alarm message and a continuous audible alarm.

CAUTION

- Before driving, please check whether there are any heavy objects on the front passenger's seat to avoid the system mistakenly determining that the seat is occupied and issuing a false alarm.
- If the alarm remains on after the seat belt is fastened correctly, it means that the seat belt reminder fails. In that case, please contact the GAC Motor authorized shop for inspection in time.

⚠ WARNING

Never insert the substitute of seat belt tongue into the buckle to eliminate the seat belt alarm.

: Rear seat belt indicator lamp*

If rear seat belt indicator lamp is on in white, it indicates that the seat belt is fastened, and if the indicator lamp is on in red, it indicates that the seat belt is not fastened or the seat belt system is faulty. If the indicator lamp stays red after the seat belt is fastened correctly, it means that the SRS is failed. In that case, please go to the GAC Motor authorized shop for inspection in time.

The 2nd-row seat belt indicator lamp comes on for a period of time and then goes out. It will light up again under the following conditions:

- The rear passenger does not fasten the seat belt when the engine starts.
- The rear passenger does not fasten the seat belt when the rear door is opened/closed.
- The rear passenger fastens or unfastens the seat belt.

Seat belt pretensioner and load limiter*

The seat belt pretensioner and load limiter can reduce the pressure of the seat belt on the chest of the driver or passenger and improve the protection performance.

- Before the collision, the seat belt pretensioner and load limiter can restrain the driver or passenger and enable him or her to maintain a correct sitting posture to prevent the body from leaning forward.
- In the event of a collision that is severe enough, the seat belt pretensioner and load limiter will deploy, driving the seat belt webbing to be quickly retracted and tensioned.
- When a vehicle collision occurs, the human body will move forward, and the seat belt load limiter will deploy at this time, so that the restraint force of the seat belt on the human body will be within a certain range, preventing the occupant from being further injured due to excessive force. And at the same time, the seat belt pretensioner and load limiter will work with the airbag to achieve a better safety protection performance.

NOTE

- When the seat belt pretensioner and load limiter is activated, a little harmless smoke together with a sound will be produced, which is normal.
- The deployed seat belt pretensioner and load limiter will no longer operate, and the supplemental restraint system (SRS) indicator lamp will stay on. In that case, please contact the GAC Motor authorized shop for replacement.

Fastening the front seat belt

- Keep a correct sitting posture. => See page 12
- Pull out the seat belt slowly at an uniform speed, and insert the tongue into the corresponding buckle until a click is heard.
- Pull the seat belt and confirm that the tongue is properly locked.

NOTE

The fastening methods for rear seat belts are the same, and the driver is responsible for reminding passengers to fasten the seat belts correctly.

Unfastening the seat belt

- Press the red button of the buckle. Then the lock tongue will pop out automatically.
- Grasp the seat belt to allow it to retract slowly.

Pregnant women must fasten the seat belts correctly

How does a pregnant woman correctly fasten the seat belt?

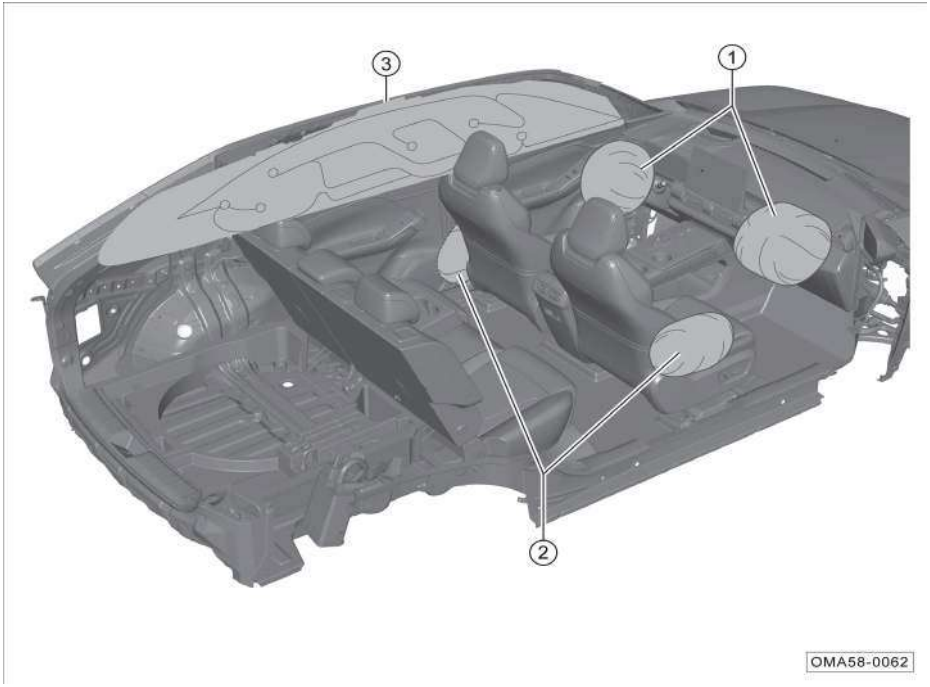
- Adjust the seat and headrest to the proper position.
- Grasp the lock tongue, slowly pull the seat belt over the shoulder, and ensure that the lap belt is as low as possible and not pressed against the abdomen.
- Insert the tongue into the corresponding buckle until a click sound is heard.
- Pull the shoulder belt upward parallel to the upper body, tension the lap belt, and make sure that the lock tongue is properly locked.

⚠ WARNING

To reduce the risk of injury during emergency braking or accidents, please observe the following precautions:

- **Before driving, make sure that all occupants have properly fastened the seat belts.**
- **Each seat belt is for one person only. Do not share a seat belt with other persons (including children).**
- **Do not recline the front seat back excessively for comfort.**
- **Do not put the shoulder belt under or behind your arm.**
- **Be sure to insert the lock tongue into the buckle of corresponding side instead of the buckle of other side.**
- **Never unfasten the seat belt before the vehicle comes to a complete stop.**

4.3 Supplemental restraint system (SRS)



Depending on vehicle configurations, the deployment positions of the SRS are as shown below:

① Front seat frontal airbag

② Front seat side airbag

③ Side curtain airbag (LH SHOWN, RH OPPOSITE).

i NOTE

The airbag will produce a little harmless smoke when deployed, which is normal.

Supplemental restraint system (SRS) indicator lamp

With the START/STOP button set to “ON” position, the indicator lamp will be on for a few seconds and go out after the system completes self-test.

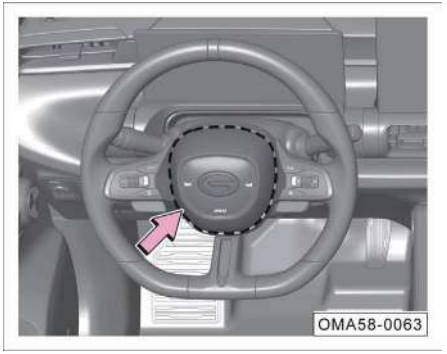
A system fault is indicated when the indicator lamp is in the following conditions:

1. The indicator lamp does not come on after the START/STOP button is set to “ON” position.
2. With the START/STOP button set to “ON” position, the indicator lamp does not go out after the system completes self-test.
3. After the START/STOP button is set to “ON” position, the indicator lamp goes out but then comes on again.
4. The indicator lamp comes on or flashes while the vehicle is running.

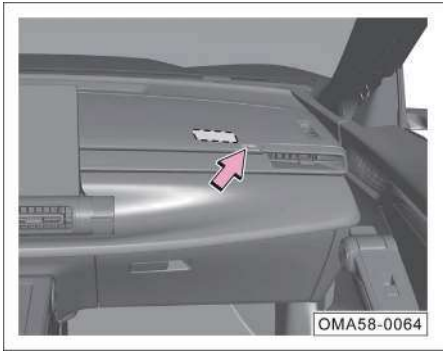
⚠ WARNING

- **Never attempt to repair, adjust or modify the airbag.**
- **The airbag can be deployed once only, and thus, if it is deployed in an accident, please contact the GAC Motor authorized shop for replacement.**
- **When the SRS is faulty, please contact the GAC Motor authorized shop for inspection and repair. Otherwise, the system cannot trigger or abnormally triggers the airbag in the event of a vehicle collision.**

Front seat frontal airbag



The driver’s frontal airbag is installed inside the steering wheel (as indicated by the dotted dash) marked with “AIRBAG”.



The front passenger's frontal airbag is installed inside the instrument panel (as indicated by the dotted dash) marked with "AIRBAG".

In the event of a frontal collision which is severe enough to meet the triggering condition of frontal airbag, the frontal airbags will be triggered by the system and deploy rapidly to assist the seat belt in protecting the driver and front passenger.

In certain collision accidents, the system may simultaneously trigger other airbags.

⚠ WARNING

Do not attach or place any decorative objects on the surface of instrument panel; otherwise, when the vehicle is running or the airbag deploys, these objects will fall, be knocked over and roll around in the vehicle, affecting the driver and hurting the passengers in the vehicle.

The front seat frontal airbags might not be triggered in the following cases:

- the vehicle power switch set to "ACC" or "OFF" position.
- minor frontal collision.
- side collision.
- rear-end collision.
- rollover.
- other special circumstances.

i NOTE

The word "minor" implies the severity of collision sensed by the SRS controller and has nothing to do with the damage of the vehicle.

Front seat side airbag

The front seat side airbags are installed in the outboard sides of the driver's seat back and the front passenger's seat back respectively (as indicated by the dotted dash) marked with "AIRBAG".

In the event of a side collision which is severe enough to meet the triggering condition of frontal airbag, the side airbags will be triggered by the system and deploy rapidly to assist the seat belt in protecting the driver and front passenger.

In certain collision accidents, the system may simultaneously trigger other airbags.

The front seat side airbags might not be triggered in the following cases:

- the vehicle power switch set to "ACC" or "OFF" position.
- 100% frontal collision.
- minor side collision.
- rear-end collision.
- other special circumstances.

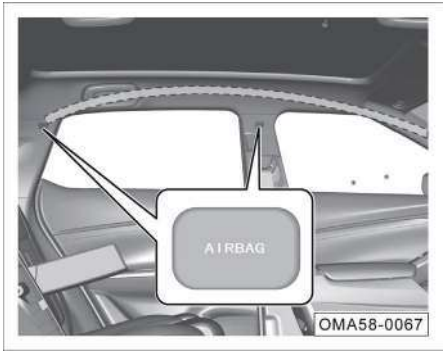
i NOTE

The word "minor" implies the severity of collision sensed by the SRS controller and has nothing to do with the damage of the vehicle.

⚠ WARNING

- **Do not lean your body against the door side equipped with side airbags during driving.**
- **Do not cover the side airbags with seat covers or other objects; otherwise, the side airbags will not be deployed to protect the occupants when an accident occurs.**

Side curtain airbag



The side curtain airbags are installed in the left and right sides of the roof respectively (as indicated by the dotted dash) marked with “AIRBAG”.

In the event of a severe side collision, the curtain airbags on the side where the vehicle is collided will be triggered by the system and deploy rapidly to assist the seat belts in protecting the driver and passengers.

In certain collision accidents, the system may simultaneously trigger other airbags.

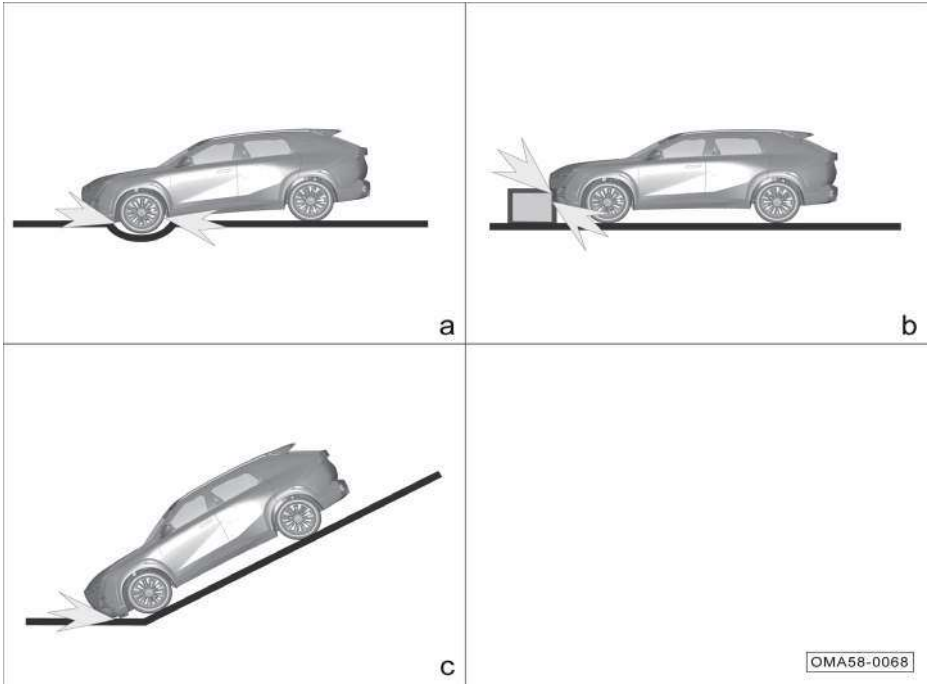
The side curtain airbags might not be triggered in the following cases:

- the vehicle power switch set to “ACC” or “OFF” position.
- 100% frontal collision.
- minor side collision.
- rear-end collision.
- other special circumstances.

i NOTE

The word “minor” implies the severity of collision sensed by the SRS controller and has nothing to do with the damage of the vehicle.

4.3.1 Cases where the airbags may deploy

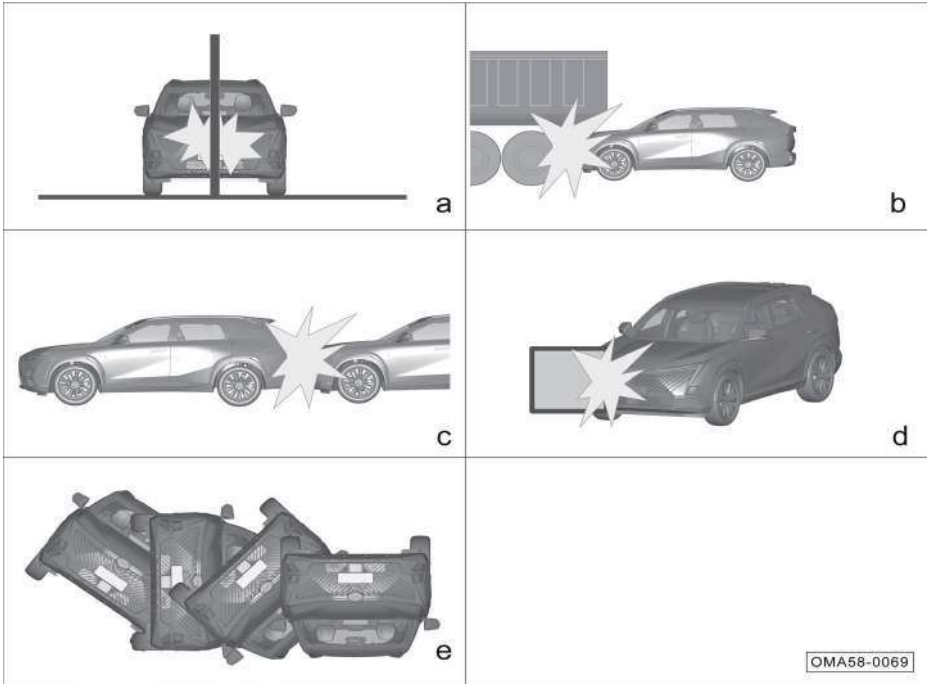


a: **Hitting of nose to the ground after crossing a deep groove.**

b: **Collision with roadside protrusions, curbs, etc.**

c: **Hitting of nose to the ground after running down a steep slope.**

4.3.2 Cases where the airbags might not deploy



a: **Collision with concrete pillars, trees or other elongated objects.**

b: **Rear-end collision with the lower rear end of large truck.**

c: **Rear-end collision by other vehicles.**

d: **Collision with a wall or another vehicle, other than frontal collision.**

e: **Rollover.**

4.4 Safe ride of children

4.4.1 General description

The child must sit in a rear seat (2nd row), and a suitable child safety seat should be selected for protection according to the body size of the child.

Warning labels are pasted on the front and back of the right sun visor to remind the front passenger of the danger of frontal airbag. Be sure to read and follow the instructions on the labels.

⚠ WARNING

- **Do not install any rear-facing child restraint system on seats with frontal airbags!**
- **Even if the child has been put in a child safety seat, do not allow him/her to rest any part of the head or body on the door area (the deployment area of the front seat side airbag or side curtain airbag); otherwise the impact force of the deployed front seat side airbag and side curtain airbag can cause serious injury or even death of the child.**
- **Do not let children stand or kneel on the seat.**
- **Do not allow children to operate devices that may trap themselves (e.g., power window, electric sunshade, etc.).**

⚠ WARNING

- **Never leave children alone in the vehicle!**
- **Never hold infants or toddlers on your knees!**
- **Seat belts are not suitable for infants and toddlers as they can cause injuries in the event of an accident.**
- **Ensure that in the event of a collision or emergency braking, children are less likely to be injured by hitting any hard objects in the vehicle.**
- **Lock the child safety lock of the door on the side where the child sits.** **=> See page 67**

4.4.2 Child safety seat

a. Group 0/0+ child safety seat

b. Group I child safety seat

c. Group II child safety seat

d. Group III child safety seat

Classification of child safety seats (for reference only):

a. Group 0/0+ child safety seat

- Suitable for infants weighing less than 13 kg.

b. Group I child safety seat:

- Suitable for toddlers weighing between 9kg and 18kg. For children weighing up to 18 kg (3 years old), rear-facing child safety seats must be installed.

c. Group II child safety seat:

- Suitable for children weighing between 15kg and 25kg.

d. Group III child safety seat:

- Suitable for children weighing between 22kg and 36kg.

For group I child safety seats, Welldon Angela's 2nd generation, i.e., product model WD002–ZJC, is recommended.

Precautions for installation:

- Adjustment of seat body: Rear-facing seat is recommended. Adjust the seat body to make it upright. (almost vertical) state.
- Adjustment of headrest: It is recommended that the headrest be flush with the shoulder of the child.
- It is recommended that the top tether anchor be fixed at the interface of the rear top cross member of the vehicle.
- It is recommended the top tether be along both sides of the child seat headrest.
- It is recommended that clip gasket and shoulder belt jacket be used.

i NOTE

During the actual installation of the child safety seat, be sure to refer to the instruction of the child safety seat for correct installation.

4.4.3 Information about child safety seat

Information about the applicability of different seating positions for child restraint systems:

Weight group	Mounting position		
	Front passenger's seat	Outboard 2nd-row seats	2nd-row center seat
Group 0: <10kg	X	U	X
Group 0+: <13kg	X	U/UF	X
Group I: 9~18 kg	X	U/UF/L	X
Group II: 15~25 kg	X	UF	X
Group III: 22~36 kg	X	UF	X

Note: **The uppercase letters in the table are defined as follows:**

U= The "general" child restraint systems approved for this weight group are suitable.

UF= The forward-facing "general" child restraint systems approved for this weight group are suitable.

L= The listed special child restraint systems are suitable, which may be for special vehicles, or of restricted or semi-general categories.

X: Not suitable for child restraint system of this mass group.

For some child safety seats, a size class is specified. Be sure to check the size class according to the manufacturer's instructions, packaging, and child safety seat label. For guidance on proper installation, please refer to the instruction of the child safety seat.

ISOFIX mounting positions for ISOFIX child safety seats

Weight group	Size class	Fixture module	Mounting position		
			Front passenger's seat	Outboard 2nd-row seats	2nd-row center seat
Carry-cot	F	ISO/L1	X	X	X
Group 0: <10kg	G	ISO/L2	X	X	X
	E	ISO/R1	X	IUF/IL	X
Group 0+: <13kg	E	ISO/R1	X	IUF/IL	X
	D	ISO/R2	X	IUF/IL	X
	C	ISO/R3	X	IUF/IL	X
Group I: 9~18 kg	D	ISO/R2	X	IUF/IL	X
	C	ISO/R3	X	IUF/IL	X
	B	ISO/F2	X	IUF/IL	X
	B1	ISO/F2X	X	IUF/IL	X
	A	ISO/F3	X	IUF/IL	X
Group II: 15~25 kg	-	-	X	IUF	X
Group III: 22~36 kg	-	-	X	IUF	X

Note: **The uppercase letters in the table are defined as follows:**

IUF - Suitable for "forward-facing" general ISOFIX child safety seats for this weight group that are fixed with top tether.

IL - Suitable for the listed special ISOFIX child restraint systems, which may be for special vehicles, or of restricted or semi-general categories.

X - Not suitable for the child safety seats for this weight group.

For some child safety seats, a size class is specified. Be sure to check the size class according to the manufacturer's instructions, packaging, and child safety seat label. For guidance on proper installation, please refer to the instruction of the child safety seat.

4.4.4 Correct installation of child safety seat

The child safety seat is generally installed by three-point seat belt, ISOFIX system, or LATCH system.

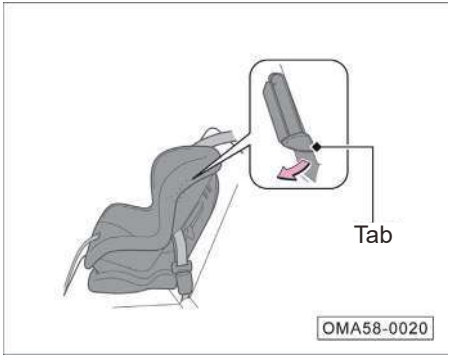
To ensure a better protection effect and prevent the headrest from affecting the performance of the child safety seat during use, it is recommended to remove the headrest of the seat on which the child safety seat is installed.

NOTE

During the actual installation of the child safety seat, be sure to refer to the instruction of the child safety seat for correct installation.

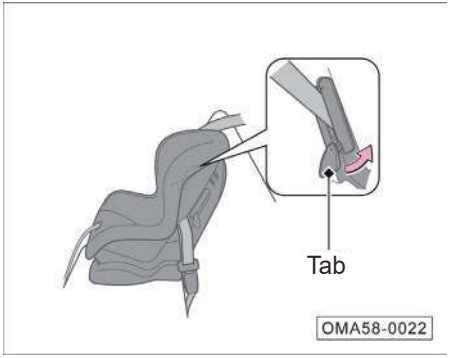
Installation of child safety seat by three-point seat belt

1. Place the child safety seat on the rear seat.
2. Pass the seat belt through the child safety seat and fully insert the tongue into the buckle until a click is heard.

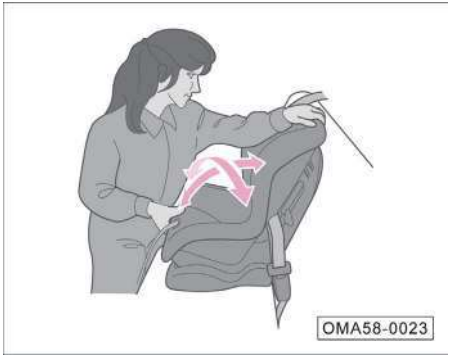


3. Push the tongue down and pass the shoulder belt through the slit on the side of the child safety seat.

4. Grasp the shoulder belt near the buckle and pull it up to tension the lap belt. At this time, press the child safety seat with your own weight and push it into the vehicle seat.

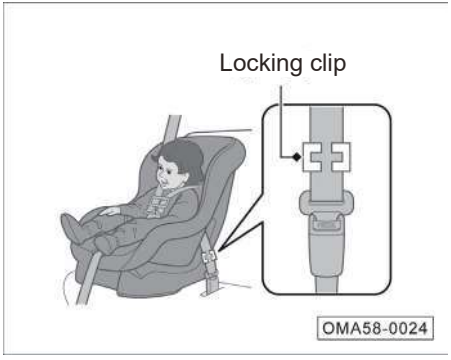


5. Place the seat belt correctly and push the tab up. Make sure the seat belt is not twisted. When pushing the tab up, pull upward the upper part of the shoulder belt to tension the belt.



6. Shake the child safety seat back and forth, left and right to make sure it is firmly fixed.

7. Make sure that all unused seat belts in the reach of the children are locked.



If no means are provided on the child safety seat for securing the seat belt, please install a locking clip on the seat belt.

- After the above steps 1 and 2, pull up the shoulder belt and make sure the lap belt is tensioned.
- Firmly grasp the seat belt near the tongue. Pinch the two parts of the seat belt together so that they do not slip out of the tongue. Unbuckle the seat belt.

Install the locking clip as shown. Place the buckle as close as possible to the locking tab and insert the locking tab into the locking clip. Go to steps 6 and 7.

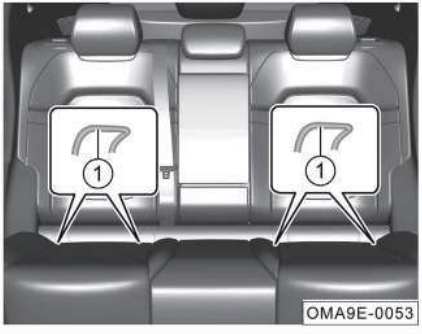
Installing ISOFIX system

The rear seats (2nd-row) of this vehicle are equipped with the ISOFIX system, and thus suitable for the ISOFIX child safety seats.

⚠ WARNING

- **The child safety seat anchorages installed in this vehicle can be used to fix the child safety seats only.**
- **Do not connect straps, hard and sharp objects or any other objects other than child safety seats to the anchorages; otherwise children may be endangered in the event of an accident.**

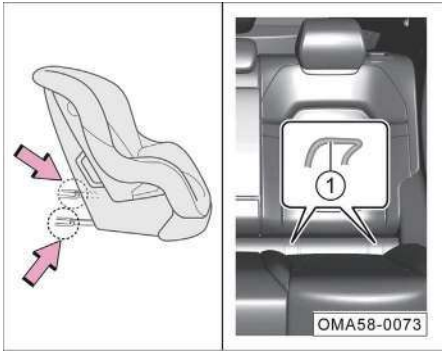
Rear seat



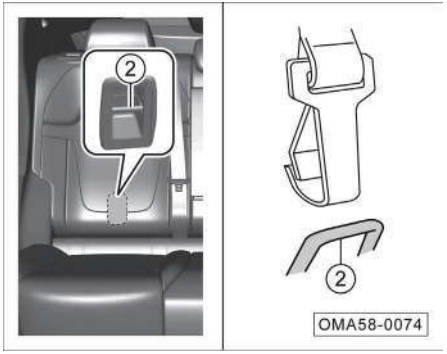
The lower anchorage ① of the rear seat is hidden in the gap between the seat back and cushion.

NOTE

The rear anchorages ② of the rear seat are located behind the seat back or in the ceiling above the rear seat. The rear anchorages behind the seat back are shown as an example, and rear anchorages ② become visible after their cover are opened.



1. Put the child safety seat on the seat, find the lower anchorage ①, and insert the lower guide groove of the child safety seat as arrowed into the lower anchorage ① until a click is heard.



2. Thread the strap through the top of seat back, open the cover of rear anchorage ②, and attach the strap hook to the rear anchorage ② with the strap not twisted.
3. Tension the strap and shake the child safety seat to ensure it is firmly fixed.

4.5 Exhaust gas hazard

Carbon monoxide gas

The exhaust gas emitted by the engine contains the toxic carbon monoxide gas. Please use the vehicle correctly to prevent the carbon monoxide gas from entering the vehicle.

Please contact the GAC Motor authorized shop to check whether the exhaust system is normal in the following cases:

- The exhaust system makes abnormal noises.
- The exhaust color is abnormal.

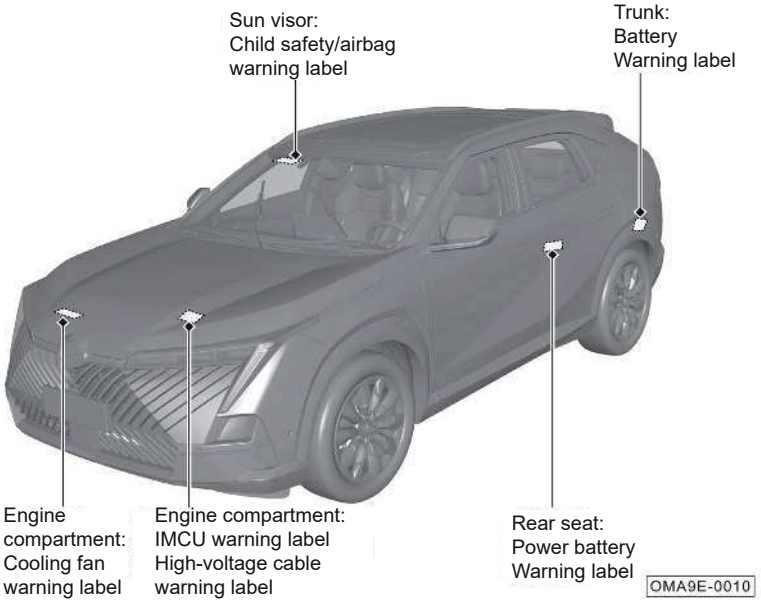
If the engine is idling during parking, please open all the windows and turn on the A/C system:

1. Select the fresh air mode.
2. Select  mode.
3. Set the fan speed to the highest.

⚠ WARNING

- **Carbon monoxide gas is toxic, and inhaling a great quantity of it will cause loss of consciousness and even death.**
- **When the engine is started for a long time in a confined space (such as a garage, etc.), carbon monoxide will quickly accumulate, resulting in excessive carbon monoxide in the vehicle. Therefore, after starting the vehicle, drive it away from the confined space immediately.**

4.6 Safety label



The labels are located as shown to remind you of the potential danger that can cause serious injury or death. Please read these labels carefully.

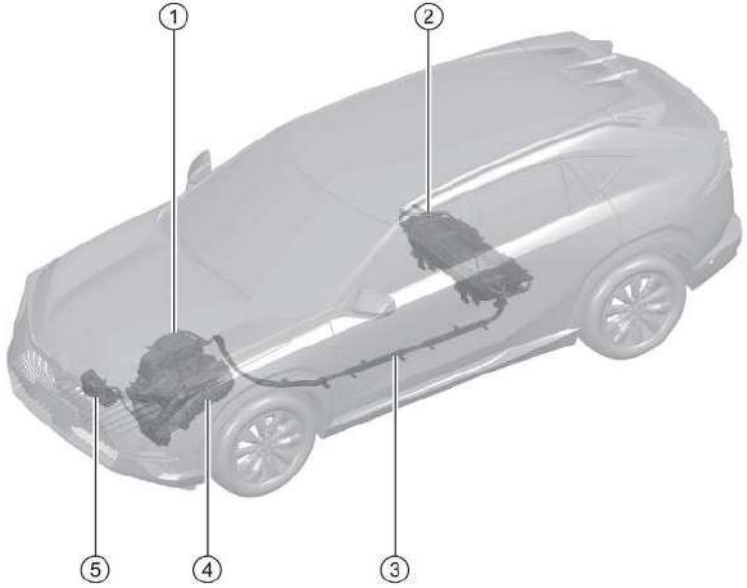
If the label comes off or is difficult to read, please go to the GAC Motor authorized shop in time for replacement.

i NOTE

In case of any discrepancy in the illustrated location or quantity of the labels, the actual vehicle shall prevail.

5.1 Overview to hybrid system

5.1.1 Hybrid system



Be careful when operating the hybrid system, as it is a high-voltage system and its internal parts will become hot when it is working. Follow the warnings on the warning labels.

Composition of high-voltage system

① IMCU
② Traction battery
③ High voltage cable (orange)
④ Electromechanical coupling transmission
⑤ A/C compressor

NOTE

The orange harnesses on the vehicle are high-voltage cables.

Fuel run-out

When the vehicle runs out of fuel and the hybrid system fails to start, fill the vehicle with fuel to such extent that the low fuel level indicator lamp goes out. If only a small amount of fuel is filled, the vehicle may not start.

Power battery

The traction battery has a limited life, which depends on the driving style and driving conditions.

In order to keep the traction battery in the optimum condition, please start the engine regularly to charge the traction battery.

Cautions on high-voltage system

⚠ WARNING

The vehicle is equipped with high-voltage DC and AC systems and a 12V low-voltage system. High-voltage direct current and high-voltage alternating current are very dangerous and may cause serious burns and electric shock, resulting in serious injury or even death.

- **Therefore, do not touch, disassemble, remove or replace high-voltage parts, cables and their connectors.**
- **The hybrid system works at a high voltage, and thus the system temperature is high after start-up. Therefore, be cautious of high voltage and high temperature, and always follow the warnings on the warning labels.**

Cautions on traffic accident

⚠ WARNING

Follow the precautions below to reduce the risk of serious injury or even death.

- **Park the vehicle on the side of the road, move the gearshift lever to P, apply the parking brake, and shut down the vehicle.**
- **Do not touch high-voltage parts, cables and their connectors.**
- **Never touch exposed wires inside or outside the vehicle, as they pose risk of electric shock.**
- **Do out touch leaking fluid, as it may be the electrolyte of the traction battery. If the skin or eyes come into contact with the electrolyte by accident, rinse immediately with plenty of water, and if possible, use boric acid solution. Then seek medical attention immediately.**

⚠ WARNING

- If the hybrid electric vehicle catches fire, leave the vehicle as soon as possible. Never use a fire extinguisher that is not effective for circuit fires, as even a small amount of water can be dangerous.
- If the vehicle needs to be towed, always keep the front wheels off ground. If the wheel connected to the drive motor is not lifted off ground, the motor may work for power generation continuously, posing a risk of fire thereafter.
- Check the ground under the vehicle carefully, and if any leaking fluid is found, the fuel system may be damaged. In this case, please leave the vehicle as soon as possible.

Cautions on traction battery

⚠ WARNING

- Do not sell, transfer or modify the traction battery Always get the traction battery removed from the end-of-life vehicle and then recovered by the GAC Motor authorized shop to prevent accidents. Never scrap the traction battery yourself.

If the traction battery is not properly recovered, the following situations may occur, posing risk of serious injury or even death:

- The traction battery is illegally scrapped or discarded and cause harm to the environment, or someone may receive an electric shock from touching high-voltage parts.
- The traction battery is dedicated to your hybrid electric vehicle. If the traction battery is used outside the vehicle or is modified in any way, accidents such as electric shock, heat, smoke, explosion and electrolyte leakage may occur.

⚠ WARNING

When the vehicle is sold or transferred, the possibility of an accident is extremely high because the buyer is not aware of these dangers.

- If the traction battery is not removed when the vehicle is scrapped, there is a risk of severe electric shock if high-voltage parts, cables and their connectors are touched unexpectedly.
- If the vehicle must be scrapped, always get the traction battery scrapped by a GAC Motor authorized shop or a qualified workshop. If the traction battery is not handled correctly, electric shock and serious injury or even death may be caused.

CAUTION

Do not load large quantities of water, such as bottled water, in the vehicle. If water splashes on the traction battery, the traction battery may be damaged. If this occurs, it is recommended to contact GAC Motor authorized shop for inspection.

Emergency power cut-off system

When the impact sensor detects a collision of certain degree, the emergency power cut-off system will cut off the high-voltage current and stop the fuel pump to minimize the risk of electric shock and fuel leakage. If the emergency power cut-off system is activated, the vehicle cannot be restarted. To restart the vehicle, it is recommended to contact the GAC Motor authorized shop.

Warning message for hybrid system

A warning message will be displayed on the instrument cluster display in the event of a fault in the hybrid system or improper user operation.

If the fault indicator lamp is on, the warning message is displayed or the battery is disconnected, the vehicle may not start. In this case, try to start the vehicle again. If the “READY” indicator lamp is not on, it is recommended to contact GAC Motor authorized shop.

If the vehicle has been stored for more than three months, check the instrument cluster for any alarms before driving the vehicle again.

5.1.2 Characteristics of hybrid system

As a hybrid electric vehicle, this vehicle is different from conventional vehicles in terms of characteristics. Be familiar with the characteristics of this vehicle and operate it with caution. The hybrid system couples the engine, drive motor, generator, and traction battery through a dual-motor control system, realizes the switching of various operation modes through the inversion of AC and DC, and high/low-voltage power, and also works for communicating with VCU. The functions of the hybrid system include control of speed, torque and gearshifting, cooling, regenerative braking, hill hold control, active discharge, jitter prevention, high-voltage operation safety functions, and system protection.

System composition

The hybrid system is mainly composed of engine, traction battery, integrated motor control unit (ICU), vehicle control unit (VCU), electromechanical coupling transmission and others, and supports idling stop & power generation, EV mode driving, extended range mode driving, hybrid mode driving, energy recovery and other functions.

Introduction to operation modes

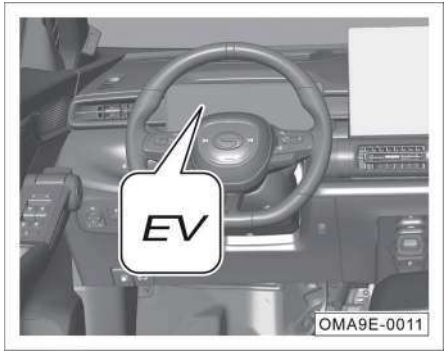
The hybrid system, through reasonable control of power coupling output of the engine, drive motor, and generator, realizes various operation modes including EV mode, extended range mode, direct driving mode, and regenerative braking mode.

- EV mode: the battery is fully charged, the engine stops working, the traction battery directly supplies power to the drive motor to drive the vehicle.
- Extended range mode: the battery SOC is lower than the requirement for vehicle control, and the engine starts and drives the generator to charge the traction battery.
- Regenerative braking mode: when the vehicle is braking, the drive motor recovers energy to charge the traction battery, which can not only increase the braking force, but also realize energy recovery.
- Direct driving mode: when the vehicle is driven at a constant high speed, both the engine and the drive motor will work to drive the vehicle.

CAUTION

In EV mode, when the SOC of the traction battery is lower than the setting, the engine starts; if the engine fails to start, the instrument cluster will display a prompt reading “System Failed. Please Contact and Check”, and the speed will be limited to 60 km/h; when the SOC of traction battery drops below 30% with vehicle in D/R, the speed will be limited to below 20 km/h, the vehicle speed will be gradually reduced and then the high-voltage system will be switched off, and if the vehicle is shifted to P in this case, the high-voltage system will be directly switched off; when the SOC of traction battery power drops below 22%, the high-voltage system will be switched off. The SOC of the traction battery, as mentioned above, is related to the outside temperature, and the SOC threshold is higher when the power is derated and the high-voltage system is switched off.

EV indicator lamp



The EV indicator lamp goes on when only the drive motor works to drive the vehicle or the engine is stopped.

Situations where the engine may not stop

The engine will start and stop automatically. However, the engine may not automatically stop:

- when the engine is being warmed up.
- when the traction battery is being charged.
- when the temperature of the traction battery is too high or too low.
- when the A/C system is working for heating.

NOTE

The engine may also not stop automatically in other conditions, depending on the actual situation.

Charging traction battery

The traction battery is charged by the engine, so no external power supply is required. However, during long-term storage without operation, the traction battery will slowly discharge. Therefore, it is recommended to keep the SOC of traction battery at about 50% and maintain the traction battery every three months as follows: start the engine and run it at idle speed to charge the traction battery until the engine automatically stops. If the traction battery is exhausted and the vehicle cannot be started, it is recommended to contact GAC Motor authorized shop.

Sound and vibration specific to hybrid vehicles

Even when the vehicle can move with “READY” indicator lamp on, there may be no sound or vibration of engine. For the sake of safety, please apply the parking brake and move the gearshift lever to P during parking.

The following sounds or vibrations may occur during operation of the hybrid system, which, however, are not indications of fault:

- working sound of drive motor from the front compartment.
- working sound of traction battery under the rear seat during start or stop of hybrid system.
- working sound of traction battery relay under the rear seat during start or stop of hybrid system, such as rapid or gentle knocking sound.
- working sound of drive motor during engine start/stop, low-speed driving or idling.
- working sound of engine during rapid acceleration.
- working sound of regenerative braking when you depress the brake pedal or release the accelerator pedal.
- vibration when the engine is started or stopped.

Maintenance, repair, recycling and scrapping

For maintenance, repair, recycling and scrapping operations, it is recommended to contact GAC Motor authorized shop. Do not scrap the vehicle yourself.

Acoustic vehicle alerting system (AVAS)

When the vehicle is being driven with engine stopped, a warning sound that changes with the vehicle speed will be given to warn passer-bys that the vehicle is approaching. When the vehicle speed rises above 25km/h, the sound will stop.

The warning sound of the AVAS may become inaudible to passer-bys in the following cases.

- when the vehicle is in a very noisy area.
- when it’s windy or rainy.

In addition, since the AVAS is installed at the front of the vehicle, the pedestrians at the rear part of vehicle are more difficult to hear the warning sound than those at the front part of the vehicle.

System failure

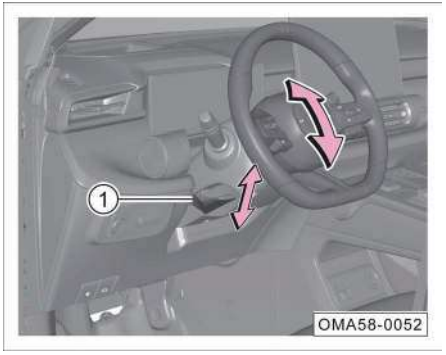
If the AVAS fails, please contact GAC Motor authorized shop for inspection.

5.2 Cab

5.2.1 Steering wheel

Adjustment of the steering wheel position

- Adjust the driver's seat until the distance between the steering wheel and your chest is not less than 25 cm.



- Push down the locking handle ① to unlock the steering wheel.
- Adjust the steering wheel to the appropriate position up, down, front, and back as required, so that you can see the instrument panel and all indicator lamps.
- Pull up the locking handle ① to lock the steering wheel and check that it is firmly locked.

CAUTION

If a great locking force is applied for locking the locking handle, you can release the locking handle again and then shake it up and down for locking again.

⚠ WARNING

- **During driving, the driver's hands should always grasp the outer ring of the steering wheel (9 o'clock and 3 o'clock positions).**
- **After adjustment, the steering wheel must be locked to prevent shifting while the vehicle is running.**
- **Only when the vehicle is stopped can the steering wheel be adjusted to avoid traffic accidents.**
- **To ensure safety, the steering wheel should face your chest, otherwise the airbag cannot provide effective protection in the event of an accident.**

Buttons on steering wheel

① Horn button: Press button to sound the horn; release the button to stop sounding the horn.

⚠ WARNING

Do not press and hold the button for a long time; otherwise the horn is highly prone to be damaged.

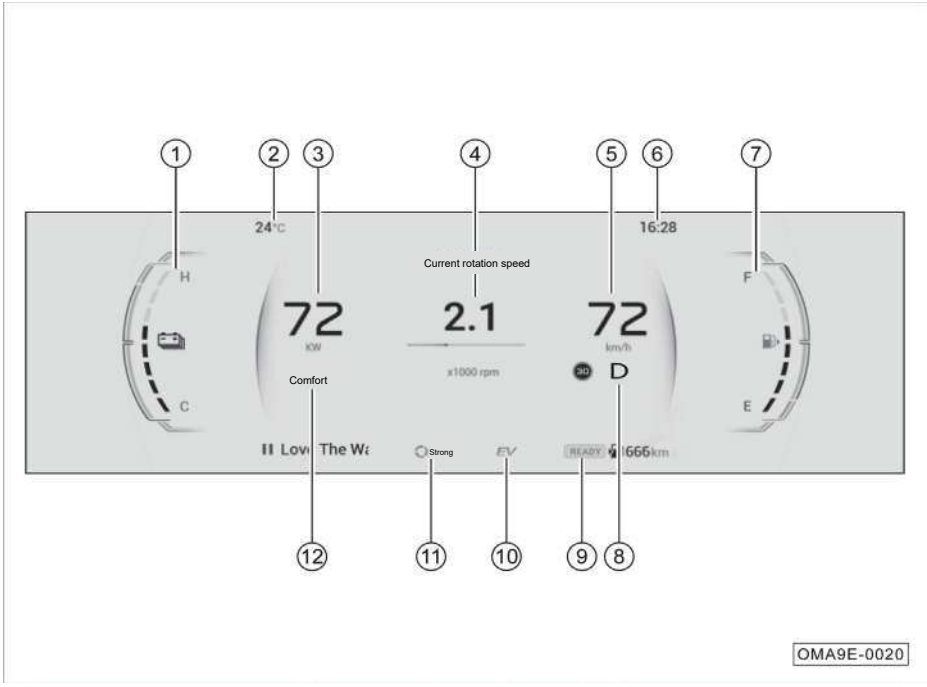
② AV system control button => See page 122

- Voice button => See page 122

③ The left buttons include the control buttons of the instrument cluster display and the cruise control buttons:

- Control buttons of the instrument cluster display:
  - Instrument cluster theme switching => See page 48
  - Driving information => See page 49
  - Alarm message => See page 51
- Cruise control buttons:
  - ACC button => See page 157
  - ICA button => See page 168

5.2.2 Instrument cluster

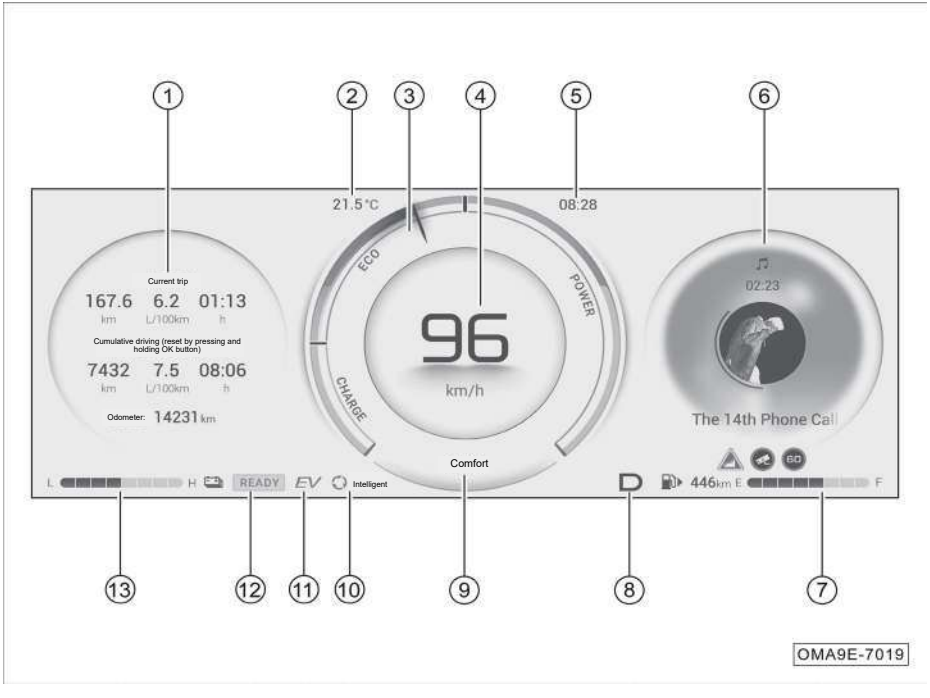


Instrument cluster with 7-inch display (global theme)*

① Battery meter
② Outside temperature indicator
③ Power meter
④ Tachometer
⑤ Speedometer
⑥ Time display
⑦ Fuel gauge
⑧ Gear display
⑨ READY indicator lamp
⑩ EV mode indicator lamp
⑪ Energy recovery level.
⑫ Driving mode

i NOTE

The global theme is shown here but is for reference only. Please refer to the actual vehicle.



Instrument cluster with 10.25-inch display * (organic theme)

① Left display of instrument panel
② Outside temperature indicator
③ Power meter
④ Speedometer
⑤ Time display
⑥ Right display of instrument panel
⑦ Fuel gauge
⑧ Gear display
⑨ Driving mode
⑩ Energy recovery level
⑪ EV mode indicator lamp
⑫ READY indicator lamp
⑬ Battery meter

NOTE

The instrument cluster with 10.25-inch display features “Organic theme” and “Intelligent driving theme”. The organic theme is shown here but is for reference only. For details, please refer to the actual vehicle.

Tachometer

The tachometer is used to indicate the current engine speed, in x1000rpm.

CAUTION

The area of 6000~8000 rpm represents the high load area of the vehicle. Avoid running the vehicle with the pointer of the tachometer within this area; otherwise, fuel shut-off and loss of power will occur due to self-protection of the engine.

Speedometer

The speedometer indicates the current speed of the vehicle in km/h, in the range of 0~240 km/h.

WARNING

For driving safety, please strictly abide by the traffic rules, and never speed the vehicle.

Power meter

The power meter is intended for indicating the current power of the vehicle:

- CHARGE zone, indicating the power of the vehicle during energy recovery.
- ECO zone, indicating that the vehicle is being driven in an environmentally friendly manner.
- POWER zone, indicating the power output by the vehicle.

Battery meter

- It is intended for indicating the current SOC of the traction battery, with L representing low voltage, and H representing high voltage. The number of lighted grids depends on the battery SOC.

Fuel gauge

The fuel gauge is used to indicate the current amount of fuel remaining in the fuel tank.

- The indication range is E~F, where “E” means the fuel tank is empty, and “F” means the fuel tank is full. The corresponding scale divisions are illuminated according to the remaining fuel in the fuel tank.
- When no scale division is illuminated or only the first scale division is illuminated, it means that the fuel in the fuel tank is insufficient. In that case, the yellow indicator lamp on the instrument cluster will flash, accompanied by the top pop-up text to remind the driver to refuel in time.

Gear display*

- The current gear information of the vehicle such as “P”, “R”, “N” or “D” is displayed according to the received signal.

Driving mode information

- The current driving mode of the vehicle is displayed according to the received signal.

Outside temperature display

- The current outside temperature is displayed on the screen.

Odometer

- The odometer indicates the traveled distance of the vehicle in the driving information screen.
- The indication range is 0~999999 km.

Instrument cluster display

The displayed information includes driving information, vehicle status, fuel consumption trend*, ADAS, energy flow*, alarm center, phone information, AV and entertainment information*, throttle sensitivity*, and alarm radar*.

CAUTION

- The protection function of the instrument cluster may be triggered under high temperature conditions to dim the brightness of the display. The brightness can be restored after the temperature of the vehicle is lowered. This is a normal phenomenon.
- If the instrument cluster display is abnormal, stop the vehicle immediately for the sake of safety, and contact the GAC Motor authorized shop for inspection.

Instrument theme switching

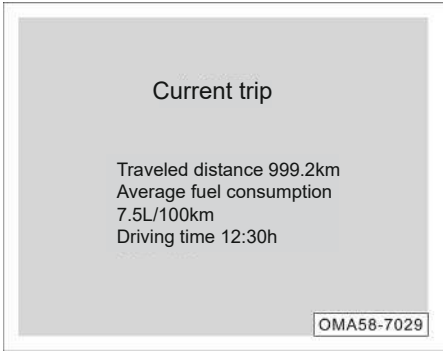
With START/STOP button set to “ON” position, press “VIEW” button on the left of steering wheel to access the screen of theme setting of instrument panel.

- For the instrument cluster with 10.25-inch display, press the “VIEW” button to enable the instrument cluster to cycle between the organic theme and intelligent driving theme.
- For the instrument cluster with 7-inch display, press the “VIEW” button to enable the instrument cluster to cycle between the organic theme and global theme.

NOTE

- The theme of the instrument cluster can also be changed by switching driving mode after the driving mode and the A/V system are bound.

Driving information



When the START/STOP button is set to “ON” position, move up or down the “OK” button on the left of the steering wheel to switch to the driving information screen.

- On the driving information screen, the current trip information, cumulative driving information and total distance are displayed.

- Current trip: It indicates the driving information (trip distance/ average fuel consumption/ driving time) of the vehicle in a single drive after the START/STOP button is set to “ON” position, where the vehicle parameters cannot be reset.
- Cumulative driving: It indicates the driving information (cumulative distance/ average fuel consumption/ driving time) of the vehicle since the last reset, where the vehicle parameters can be reset by pressing and holding “OK” button.
- Total distance: It indicates the mileage of the vehicle, which cannot be reset.

NOTE

The organic theme of instrument cluster with 7-inch display is illustrated here and for reference only. Please refer to the actual vehicle.

Vehicle status

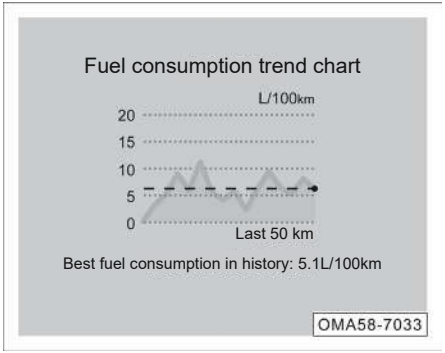
When the vehicle power switch is set to “ON” position, move up or down the “OK” button on the left of the steering wheel to view the vehicle state.

- The displayed information includes tire pressure, temperature, door state, and seat belt alarm message.
- When tire pressure is abnormal, any door/ liftgate/engine hood is ajar or any seat belt is unfastened, the screen will pop out automatically.

NOTE

The organic theme of instrument cluster with 7-inch display is illustrated here and for reference only. Please refer to the actual vehicle.

Fuel consumption trend *



Toggle the “OK” button on the left side of the steering wheel up/down to view it.

- Display the fuel consumption trend and average fuel consumption of the last 50 km.

NOTE

The organic theme of instrument cluster with 7-inch display is illustrated here and for reference only. Please refer to the actual vehicle.

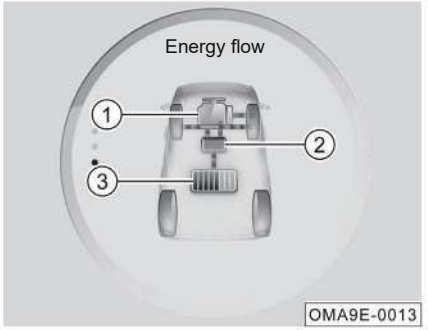
ADAS

With the START/STOP button in “ON” position, move up or down the “OK” button on the left of the steering wheel to view the current status of driver assistance system.

NOTE

The intelligent driving theme of instrument cluster with 7-inch display is illustrated here and for reference only. Please refer to the actual vehicle.

Energy flow *



With the START/STOP button in “ON” position, move up or down the “OK” button on the left of the steering wheel to view the energy flow. The energy flow interface shows the energy flow relationship between the traction battery, the drive motor, and the engine.

① Engine

② Drive motor

③ Traction battery:

NOTE

The Navigation theme of instrument cluster with 10.25-inch display is illustrated here and for reference only. For details, please refer to the actual vehicle.

Alarm radar *

Display radar alarm information.

- The parking sensor interface will pop up when the parking sensor alarm is triggered but no parking image is shown on the center console display.

NOTE

The organic theme of instrument cluster with 10.25-inch display is illustrated here and for reference only. Please refer to the actual vehicle.

Alarm center

On the alarm center screen, the current state of the vehicle is displayed in the form of texts or pictures. The driver should always pay attention to checking for alarm message.

- If the vehicle is in normal condition, no alarm message is displayed.
- If the vehicle is faulty or certain function is activated/deactivated, corresponding text or picture message will appear at the upper part of the screen of the instrument cluster, reminding the driver about the current state of the vehicle.
- If any alarm message appears, press “OK” button on the left of the steering wheel to confirm the message. Then the message will be displayed on the alarm center screen.
- In case of several alarm messages, corresponding number and current text message will be displayed on the alarm center screen.

i NOTE

The organic theme of instrument cluster with 10.25-inch display is illustrated here and for reference only. Please refer to the actual vehicle.

Throttle sensitivity*

With the START/STOP button in “ON” position, move up or down the “OK” button on the left of the steering wheel to view the throttle sensitivity.

- Current steering wheel assist mode: Sport/Standard/Comfort.
- The AVDC embodies the current state of AVDC function.

NOTE

The organic theme of instrument cluster with 10.25-inch display is illustrated here and for reference only. Please refer to the actual vehicle.

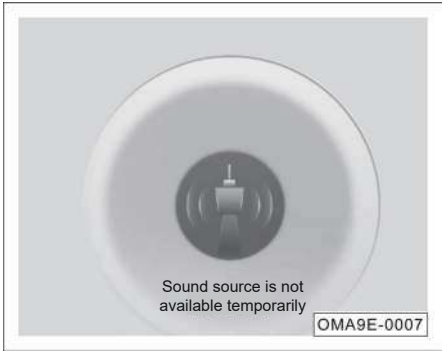
Call information*

- When the AV system is connected to the Bluetooth of the mobile phone and there is an incoming call, the call information will be displayed at the lower right of the instrument cluster display.
- When the E-CALL* is used, the call information screen will display E-CALL* status.

NOTE

The organic theme of instrument cluster with 10.25-inch display is illustrated here and for reference only. Please refer to the actual vehicle.

AV and entertainment information *



- With the START/STOP button in “ON” position, press the audio source button on the right of the steering wheel to switch to the AV and entertainment information screen. When the AV system is not turned on, the prompt message “Audio source is not available temporarily” is displayed on the AV and entertainment information screen.

- When the AV system is turned on, the current playback information will be displayed on the AV and entertainment information screen.

NOTE

- The organic theme of instrument cluster with 10.25-inch display is illustrated here and for reference only. Please refer to the actual vehicle.
- When the AV system activates the link function through CarPlay, the corresponding entertainment function screens of CarPlay will not be accessed.

Instrument cluster setting

With the START/STOP button in “ON” position, when the vehicle speed is zero, set the instrument cluster via “Settings → Display Setting → Instrument Cluster” on the AV system display;

NOTE

For details on instrument panel setting, please refer to System Settings section. => See page 132

5.2.3 Indicator lamps

No.	Icon	Designation	Color	Function
1		Charging system warning lamp	Red	The warning lamp will come on when the vehicle is not started with the START/STOP button in "ON" position, and will go out after the vehicle is started.
				If this warning lamp comes on after the vehicle is started, it indicates that the charging system is faulty.
2		MIL	Yellow	If there is no fault, this indicator lamp will come on and stay on for a few seconds when the engine is not started with the START/STOP button set to "ON" position, and then will go out after the system self-test.
				If this indicator lamp comes on after the vehicle is started, it indicates that the engine system is faulty.
3		Low oil pressure warning lamp	Red	The warning lamp will come on when the vehicle is not started with the START/STOP button in "ON" position, and will go out after the vehicle is started.
				If this warning lamp comes on after the vehicle is started, it indicates that the engine oil pressure is low.
4		Emission fault indicator lamp	Yellow	The indicator lamp will come on when the vehicle is not started with the START/STOP button set to "ON" position, and will go out after the vehicle is started.
				If this indicator lamp comes on after the engine is started, it indicates that the exhaust system is faulty.
5		Left turn signal indicator lamp and hazard warning lamp	Green	When the left turn signal indicator lamp flashes alone, it indicates that the left turn signal lamp of the vehicle is on. When the hazard warning lamp switch is pressed, the left/right turn signal indicator lamps and all turn signal lamps will flash simultaneously.
6		High engine coolant temperature indicator lamp	Red	If the red indicator lamp comes on, it indicates that the engine coolant temperature is too high.
7		Supplemental restraint system (SRS) indicator lamp	Red	If the red indicator lamp comes on, it indicates that the SRS system is faulty.
8		Low fuel level indicator lamp	Yellow	If the yellow indicator lamp flashes, it indicates that the fuel level of the fuel tank is low.
				If the yellow indicator lamp comes on, it indicates that the fuel pump may be faulty.

No.	Icon	Designation	Color	Function
9		Right turn signal indicator lamp and hazard warning lamp	Green	If the right turn signal indicator lamp flashes alone, it indicates that the right turn signal lamp of the vehicle is on. When the hazard warning lamp switch is pressed, the left/right turn signal indicator lamps and all turn signal lamps will flash simultaneously.
10		EPB status indicator lamp	Red	If the red indicator lamp comes on, it indicates that the EPB is applied.
				If the red indicator lamp flashes, it indicates that the EPB is engaged partially or faulty.
			Green	If the green indicator lamp comes on, it indicates that the EPB is activated.
11		EPB fault indicator lamp	Yellow	If the yellow indicator lamp comes on, it indicates that the EPB is faulty.
				If the yellow indicator lamp flashes, it indicates that the EPB is in the service mode.
12		Brake system indicator lamp	Red	If the red indicator lamp comes on, it indicates that the brake booster system or the electronic brake force distribution (EBD) system is faulty.
				If the indicator lamp flashes red, it indicates that the brake fluid level is too low or the brake fluid level sensor is faulty.
13		ESP indicator lamp	Yellow	If the yellow indicator lamp comes on, it indicates that the ESP is faulty.
				If the yellow indicator lamp flashes, it indicates that the ESP is working.
14		ESP OFF indicator lamp	Yellow	If the yellow indicator lamp comes on, it indicates that the ESP is off.
15		Anti-lock braking system (ABS) indicator lamp	Yellow	If the yellow indicator lamp comes on, it indicates that the ABS is faulty.
16		Tire pressure monitoring system (TPMS) indicator lamp	Yellow	If the yellow indicator lamp comes on, it indicates that the TPMS is faulty.
17		Electric power steering (EPS) indicator lamp	Red	If the red indicator lamp comes on, it indicates that the EPS system is faulty.
18		Intelligent high beam indicator lamp	White	If the white indicator lamp comes on, it indicates that the intelligent high beam is in standby state.
			Blue	If the blue indicator lamp comes on, it indicates that the intelligent high beam is activated.

No.	Icon	Designation	Color	Function
19		ACC indicator lamp (no vehicle ahead)	Grey	If the gray indicator lamp comes on, it indicates that the ACC system is in the ready state, and there is no target vehicle ahead.
			Blue	If the blue indicator lamp comes on, it indicates that the ACC system is working, and there is no target vehicle ahead.
20		ACC indicator lamp (a vehicle ahead)	Grey	If the gray indicator lamp comes on, it indicates that the ACC system is in the suppression or ready state, and there is a target vehicle ahead.
			Blue	If the blue indicator lamp comes on, it indicates that the ACC system is working, and there is a target vehicle ahead.
21		ACC fault indicator lamp	Yellow	If the yellow indicator lamp comes on, it indicates that the ACC system is faulty.
22		LDW status indicator lamp	White	If the white indicator lamp comes on, it indicates that the LDW system is activated.
			Yellow	If the yellow indicator lamp comes on, it indicates that the LDW system is faulty. In that case, please go to the GAC Motor authorized shop for inspection in time.
			Blue	If the blue indicator lamp comes on, it indicates that the LDW system is working normally or intervenes with the steering wheel for deviation correction.
23		FCW status indicator lamp	Yellow	If the yellow indicator lamp comes on, it indicates that the FCWS is faulty. In that case, please go to the GAC Motor authorized shop for inspection in time.
			Red	If the red indicator lamp flashes, it indicates that the FCWS is being triggered and activated.
24		Front passenger's seat belt indicator lamp	Red	If the red indicator lamp comes on, it indicates that the front passenger's seat belt is not fastened or the system is faulty.
25		Driver's seat belt indicator lamp	Red	If the red indicator lamp comes on, it indicates that the driver's seat belt is not fastened or the seat belt system is faulty.
26		High beam indicator lamp	Blue	If the blue indicator lamp comes on, it indicates that the high beam is on.
27		Position lamp indicator lamp	Green	If the green indicator lamp comes on, it indicates that the position lamp, instrument panel lamp, license plate lamp, etc. are on.
28		Rear fog lamp indicator lamp	Yellow	If the yellow indicator lamp comes on, it indicates that the rear fog lamp is on.

No.	Icon	Designation	Color	Function
29		BSD system status indicator lamp *	Green	If the green indicator lamp comes on, it indicates that the BSD system is activated.
			Yellow	When the indicator lamp is yellow, it indicates that the BSD system is faulty.
30		Hill descent control (HDC) indicator lamp	Yellow	If the yellow indicator lamp comes, it indicates that the HDC system is activated.
31		Hands-on indicator lamp	Blue	If the blue indicator lamp comes on, it indicates that hands on steering wheel is detected by ICA.
			Red	If the yellow indicator lamp comes on, it indicates that hands off steering wheel is detected by ICA.
32		Lateral control status indicator lamp	Grey	If the gray indicator lamp comes on, it indicates that ICA is in standby state.
			Blue	If the blue indicator lamp comes on, it indicates that ICA is activated.
			Yellow	If the yellow indicator lamp comes on, it indicates that ICA is faulty.
33		Rear seat belt indicator lamp *	White	If the white indicator lamp comes on, it indicates that the corresponding rear seat belt is fastened.
			Red	If the red indicator lamp comes on, it indicates that the corresponding rear seat belt is not fastened or the seat belt system is faulty.
34		Door ajar indicator lamp	Red	If the indicator lamp is on in red, it indicates that the engine hood, any door or trunk lid has not been closed.
35		GPF indicator lamp	White	If the white indicator lamp comes on, it indicates that the accumulated carbon of the GPF exceeds a certain limit, and it is necessary to run at a high speed for more than 40 minutes to clean the carbon.
			Yellow	If the yellow indicator lamp comes on, it indicates that the accumulated carbon of the GPF is excessive, and it is necessary to run at a high speed for more than 40 minutes to clean the carbon.
36	READY	READY indicator lamp	Green	If the indicator lamp is on in green, it indicates that the vehicle is in READY state and can be driven normally.
37	EV	EV mode indicator lamp	Green	If the indicator lamp is on in green, it indicates that vehicle is in EV mode.
38		System fault indicator lamp	Red	If the indicator lamp is on in red, it indicates that the hybrid system is faulty.
39		Low battery indicator lamp	Yellow	If the indicator lamp is on in yellow, it indicates that the traction battery is low. In this case, please start the engine to charge the traction battery after READY. The judgment of low battery is related to the temperature outside the vehicle, and if the temperature outside the vehicle is lower, the threshold is higher.

No.	Icon	Designation	Color	Function
40		Power derating indicator lamp	Yellow	If the indicator lamp is on in yellow, it indicates that the vehicle travels at a derated power.

Note: If any indicator or warning lamp on the instrument cluster comes on after the vehicle is started or during driving, it indicates that the related system or function is in a certain working state or faulty. You should read carefully and understand the meaning of each indicator lamp and warning lamp. In case of failure, please go to or contact the GAC Motor authorized shop in time to repair the vehicle.

5.3 Vehicle locking and unlocking

5.3.1 Remote control key

This vehicle is accompanied with two intelligent remote control keys (including emergency mechanical key) and the corresponding key barcodes. If the key needs to be re-customized, please inform the GAC Motor authorized shop of the key barcode. If the key barcode is missing, please inform the GAC Motor authorized shop of the VIN.

NOTE

After the vehicle is started, do not place the remote control key on the instrument panel under the front windshield, otherwise the prompt “No key detected” may appear.

Poor signal strength of remote control key

The operation of the remote control key button may be interfered or unstable in the following cases:

- Nearby equipment is emitting strong radio waves.
- The intelligent remote control key is carried together with telecommunication equipment, laptop, mobile phone, or wireless signal transmitter.
- The remote control key is put together with magnetic cards (such as bank card and bus card).
- Metal objects are in contact with or cover the remote control key.

CAUTION

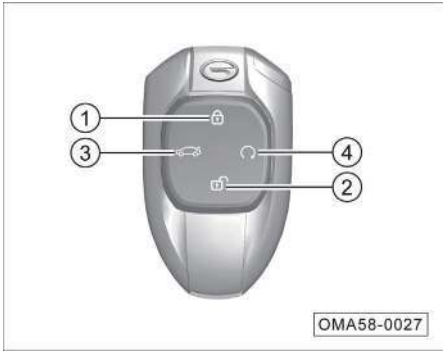
The remote control key contains an electronic circuit that can trigger the engine immobilizer system. If the circuit is damaged, the vehicle may not be started. Therefore,

- Avoid placing the remote control key in direct sunlight or in a high-temperature or humid place.
- Avoid dropping the remote control key from a high place or crushing it by heavy objects.
- Avoid exposing the remote control key to any liquid. If the key gets wet accidentally, dry it immediately.

NOTE

- The buttons of the remote control key do not work when the START/STOP button is set to “ACC” or “ON” position.
- If the unlocking or locking function of the remote control key is deactivated, you can try to press the buttons on the remote control key 3 times continuously to activate the function.

Button operations



① : Locking button
② : Unlocking button
③ : Liftgate unlocking button
④ : READY/READY OFF button

① button

- If the button is pressed once within the effective range of the remote control key, all doors will be locked; if the button is pressed and held, only the driver's door window will be automatically closed for some models, and the four door windows and sunshades will be automatically closed for some other models; if the button is released in the automatic closing process of the windows and sunshades, the windows and sunshades will stop closing.
- If this button is pressed continuously for 2 times, the vehicle locating function will be activated and the turn signal lamps will flash 4 times quickly.

CAUTION

Before closing the windows by the remote control key, make sure that there are no body parts (such as head and hands) in the movement path of the windows so as to prevent a risk of pinch injury.

NOTE

- When the doors are locked, the turn signal lamps will flash once and the horn will sound once. The horn prompt can be activated or deactivated via "Settings → Sound Effect Settings → System Sound Effect → Unlocking/Locking Horn" in the AV system.
- For some models, the locking-sensitive window closing function can be switched on/off by selecting "Settings → Body Accessories → Door/Window Lock → Locking-sensitive Window Closing" on the AV system display. After the function is turned on, press the button once within the effective range, so that all doors will be locked and the windows will be closed automatically.

② button

- If the button is pressed once within the effective range of the remote control key, all doors will be unlocked; if the button is pressed and held, only the driver's door window will automatically open for some models, and the four door windows will be automatically closed for some other models; if the button is released in the automatic opening process of the windows, the windows will stop opening.

CAUTION

If the door is not opened within 30 s after being unlocked by pressing the unlocking button on the remote control key, the system will lock the door again.

NOTE

- When the doors are unlocked, the turn signal lamps will flash twice and the horn will sound twice. The horn prompt can be activated or deactivated via "Settings → Sound Effect Settings → System Sound Effect → Unlocking/ Locking Horn" in the AV system.
- All the four doors or the driver's door can be unlocked by pressing the button after setting via "Settings → Body Accessories → Door/Window Lock → Remote Unlocking".

③ Button operations

- If the vehicle has the PLG function, two presses on the button within the effective range can open the liftgate electrically. During the opening process, if the button is pressed again, the liftgate will stop at the current position.
- If the vehicle does not have the PLG function, two presses on the button within the effective range will unlock the liftgate with the need of manual opening of the liftgate.

④ Button operations

- With traction battery fully charged and the remote control key within the effective range, when the button is pressed, and the button is pressed and held within 2s, the turn signal lamp will flash, the "READY" indicator lamp on the instrument cluster will go on, and the vehicle is started
- When the vehicle has been started remotely, press and hold the button for about 3s to shut down the vehicle remotely.

NOTE

- Before remotely stopping the vehicle, make sure that the vehicle is locked. If you are not sure about it, press the button once, and then press and hold the button to remotely stop the vehicle.
- To remotely stop the vehicle, keep the key within the effective range, otherwise the unlocking function may be triggered and then the engine cannot be started.
- The maximum holding time for starting is about 5 min by default (30 min for models equipped with T-BOX). If you need to change the duration, please go to the GAC Motor authorized shop to change it.

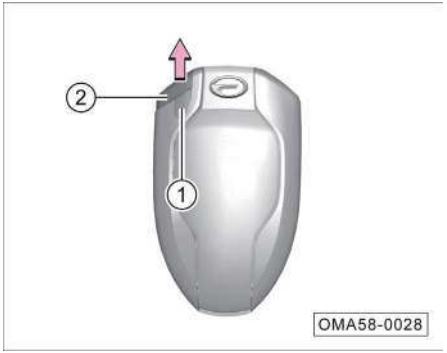
Battery replacement

Each time you press the buttons on the remote control key, the indicator lamp of the key will flash once. If the indicator lamp fails to flash, or you need to press the buttons several times to lock or unlock the doors, the battery may be exhausted or about to run out. It is recommended to go to GAC Motor authorized shop for the battery replacement.

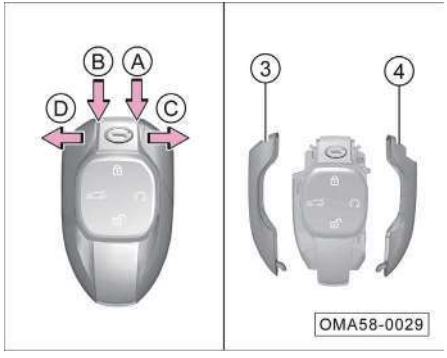
CAUTION

- Be sure to replace the battery with a new one of the same model.
- An inappropriate battery may damage the remote control key.
- Always comply with relevant environmental regulations to dispose of the exhausted battery.

Battery replacement steps



- Press the locking button ① and pull out the emergency mechanical key ② as arrowed.

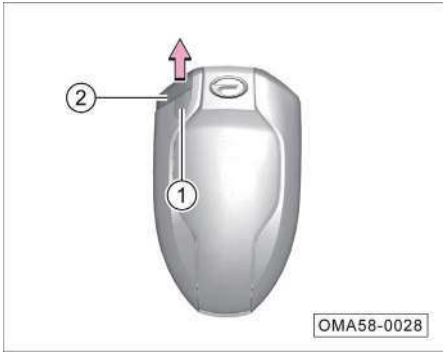


- Use a slotted screwdriver wrapped by cloth to pry open the chrome plated housing of the remote control key at positions (arrows A and B) in the direction of arrows C and D.
- Remove the chrome plated housings ③ and ④ of the remote control key.

- Take off the transparent trim cover ⑤.
- Use a slotted screwdriver wrapped by cloth to pry open the housing of the remote control key at position (arrow E).
- Take out the battery ⑥.
- Assemble the remote control key in the reverse steps mentioned above.

5.3.2 Emergency mechanical key

Emergency mechanical key



- Press the locking button ① and pull out the emergency mechanical key ② as arrowed.

5.3.3 Door lock system

Central locking button

The central locking button ① can be used to lock and unlock the doors in the vehicle:

- Lock all the doors: Press the button of ①.
- Unlock all the doors: Press the end of the central locking control button ①.

Door inner handle

- If the vehicle is locked, pull the inside handle of any door once to unlock that door only; Pull the door inside handle again to open the door.
- If the vehicle is unlocked, pull any door handle once to directly open the door.

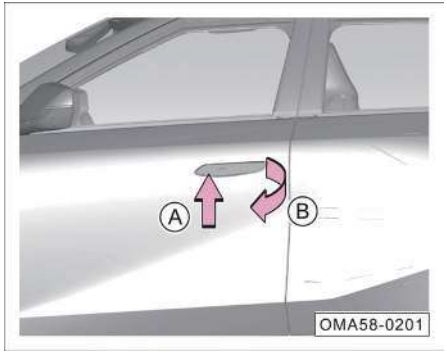
NOTE

When the child safety lock is activated => See page 67, even if the rear door latch is unlocked, the rear door cannot be opened by the inside handle. In this case, the rear door shall be opened from outside. And do not pull the inside handle with force to avoid damages.

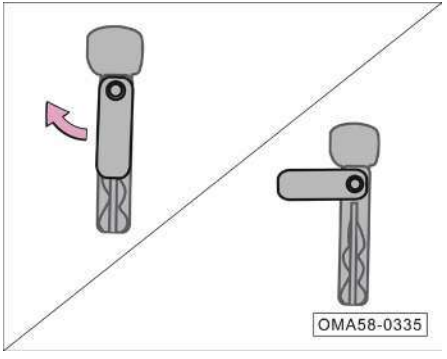
CAUTION

- Before driving the vehicle, make sure that all doors are properly closed and locked.
- Do not pull the inside handle during driving to avoid accidents due to opening of door.
- When opening or closing the door, check the surroundings of the vehicle, for example, check whether the vehicle is on a slope, check whether there is enough space to open the door or check whether there is strong wind. When opening or closing the door, hold the door handle tightly for any unpredictable movement.

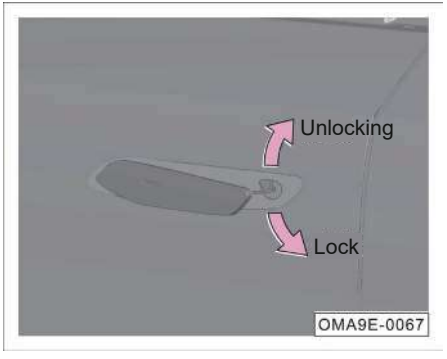
Door lock hole



- Take out the emergency mechanical key. => See page 64
- Press the left side of the door handle in the direction of -arrow A- to make the right side of the door handle tilt out, and then pull the handle out at a certain angle in the direction of -arrow B.



- Unfold the mechanical key handle.



- Insert the emergency mechanical key into the driver's door lock hole.
- Pull the mechanical key handle clockwise to unlock the driver's door.
- Press the mechanical key handle counterclockwise to lock the driver's door.

Mechanical child safety lock *

- Activation: pull the child safety lock switch ① to the lock position in the arrowed direction to turn on the child safety lock.
- Deactivation: turn the child safety lock switch ① in the opposite direction of the arrow to the unlock position to turn off the child safety lock.

Electronic child safety lock *

- Activation: Press the electronic child safety lock button ① to turn on the electronic child safety lock, and then the button indicator lamp comes on.
- Deactivation: Press the electronic child safety lock button ① again to turn off the electronic child safety lock, and then the button indicator lamp goes out.

i NOTE

Electronic child safety lock button is integrated with rear passenger's window locking function. After the electronic child safety lock is activated, the rear passenger's power window control button cannot effectively operate the corresponding window.

i NOTE

- Before driving the vehicle, if a child is seated in the rear seat, make sure that the child safety lock is activated.
- When the child safety lock is activated, the rear door cannot be opened by operating the inside handle. In this case, the rear door shall be opened from outside. And do not pull the inside handle with force to avoid damages.

⚠ WARNING

When the child safety lock is activated, never leave children or handicapped persons in the vehicle alone. Once the doors are locked, it is difficult for children or handicapped persons to leave the vehicle in an emergency; locked doors in an accident will make it more difficult to rescue persons inside the vehicle.

Auto unlock function

If the vehicle stops with the doors locked and the vehicle START/STOP button set to “OFF” position, the four doors will be automatically unlocked.

i NOTE

The automatic unlock function can be activated or deactivated via “Settings → Body Accessories → Door/window lock → Automatic unlock function” in the AV system.

Speed sensing door lock

If this function is activated with all doors closed, the vehicle will be automatically locked at certain vehicle speed or after certain driving time.

With the START/STOP button set to “ON” position, whether locked automatically or manually, all doors will be automatically unlocked if the system detects that the vehicle has suffered a severe collision. Depending on the impact force and impact range, the system may not work under extreme conditions.

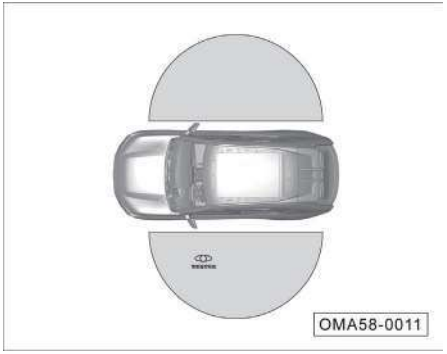
i NOTE

- This function is deactivated by default. Please read the above related content before activating this function.
- This function can be activated or deactivated via “Settings → Body Accessories → Door/window lock → Speed Sensing Door Lock” in the AV system.

Collision unlock function

With doors locked and the vehicle START/STOP button set to “ON” position, when the system detects that the vehicle has suffered a severe collision, all doors will be automatically unlocked. Depending on the impact force and impact range, the system may not work under extreme conditions.

Intelligent active unlock

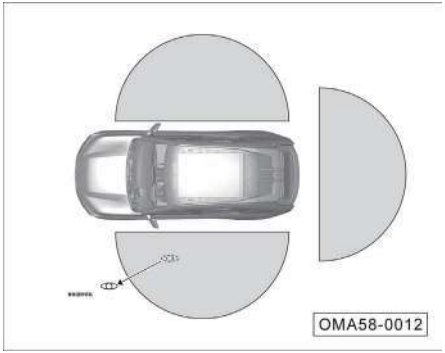


- When the intelligent active unlock function is activated and the intelligent remote control key is brought to the area within 1.2 m of the vehicle, the vehicle will be automatically unlocked.

NOTE

- This function can be activated or deactivated via “Settings → Body Accessories → Door/window Lock → Intelligent Active Unlocking” in the AV system.
- After the intelligent active unlocking is successful, the turn signal lamps will flash twice and the horn will sound twice.
- When the vehicle has been not in use for more than 7 days, the intelligent active unlock function will be automatically deactivated in order to reduce the power consumption of the vehicle, and in this case, you need to use the intelligent remote control key or touch the door handle to unlock the doors, and after the vehicle is started, the intelligent active unlock function will be restored.

Intelligent active locking



- With the intelligent active lock function activated and the START/STOP button set to “OFF” position, after all doors are closed, if the intelligent remote control key is taken away from the vehicle to an area within 2 m from the vehicle for more than 2 min or to an area more than 2 m away from the vehicle, the vehicle will be automatically locked and the exterior rearview mirror will be automatically folded.
- If the key remains in an area within 2 m from the vehicle for more than 2 minutes, the system will temporarily deactivate the intelligent active lock function for the purpose of power saving; the user needs to open and then close one of the doors to re-activate the intelligent active lock function.

NOTE

- This function can be activated or deactivated via “Settings → body Body Accessories → Door/window Lock → Intelligent Active Locking” in the AV system.
- If the intelligent active unlock is successful, the turn signal lamps will flash once and the horn will sound once.
- If the intelligent active locking is activated successfully but the liftgate is ajar, the audible and visual alarms will be triggered to remind you.

CAUTION

If the intelligent remote control key is carried together with any of the following items, the smart active lock/unlock function may become unstable or ineffective.

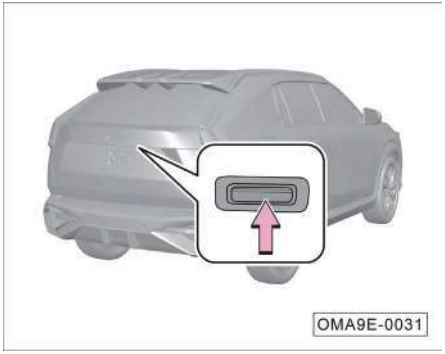
- Laptop, mobile phone, or wireless signal transmitter.
- Access card, bank card or bus card, etc.
- Metal objects.

The intelligent active locking function will not work when one of the following conditions occurs:

- The START/STOP button is set to “ACC” or “ON” position.
- The intelligent remote control key is in the car.
- No intelligent remote control key is detected within 2 m from the vehicle.
- The intelligent remote control key is thrown into the vehicle from the door window.
- The intelligent remote control key is in the trunk.
- Any door is ajar.
- The battery voltage is low.
- The PEPS antenna is faulty.

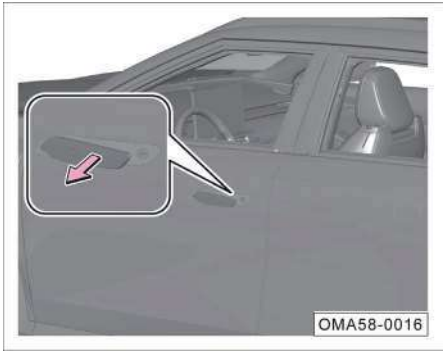
CAUTION

Do not leave children or handicapped persons in the vehicle alone when using the intelligent active lock function.



- With the START/STOP button set to “OFF” position, if you carry the intelligent remote control key to approach the liftgate, and press the liftgate unlocking button, the liftgate will be unlocked and opened.
- When the vehicle is unlocked and stationary, if you press the liftgate unlocking button directly without carrying the intelligent remote control key, the liftgate will also be unlocked and opened.

5.3.4 Flush-fit door handle



Unlock the vehicle, and after the electric flush-fit door handle unfolds automatically, pull the handle to open the door.

NOTE

The electric flush-fit door handle system can be switched on or off by selecting “Settings → Body Accessories → Door Window Lock → Electric Flush-fit Door Handle” in the AVNT display. Manually unfold the door handle after closing. => See page 66

When using the flush-fit door handle, please read and observe the following precautions:

CAUTION

Stow the flush-fit door handle before washing the vehicle, so as to avoid water entry into the inside of door handle during washing and thereafter vehicle damage.

⚠ WARNING

Prevent hand pinching by door handle when locking the vehicle.

Ice-breaking operation guide on flush-fit door handle at low temperature

When you approach the vehicle with the key, the vehicle will automatically detect the remote control key. At this point:

Method 1:

1. If a small amount of ice accumulates between the door handle and the door, the door handle can be electrically unfolded. At this time, please press the remote control key to electrically unfold and fold the door handle 3 times to remove the residual ice.
2. If there is a lot of ice accumulated between the door handle and the door, and the door handle cannot be electrically unfolded, you can manually press the tail end of the handle to make the tail end of the handle tilt up to break ice. If the handle still cannot be electrically unfolded, you need to manually remove the ice by the following operations:

- Hit the circumference of the door handle with a slight force from the bottom of the fist to destroy and release the accumulated ice, and electrically unfold the door handle by pressing the remote control key.
- Repeat the steps above and increase the tapping force as needed.

⚠ WARNING

The force of hitting the circumference of the door handle must not approximately cause dent of the door sheet metal.

3. After the door handle can be moved, unfold and fold the door handle several times to remove the residual ice and ensure that the door handle can be fully retracted in place.

Method 2:

Pour hot water to break the ice.

5.3.5 Door

- To close the door in the vehicle, grab the door handle and pull it inward.
- To close the door from outside, directly push the door toward the vehicle.

CAUTION

Before opening the door, always pay attention to other vehicles or pedestrians outside the vehicle to avoid accidents caused by collision.

⚠ WARNING

- **Make sure all doors are closed before driving, otherwise unclosed doors will open and cause accidents or injuries.**
- **Open or close the doors only when the vehicle is stationary.**
- **Do not put your hands on the edge of the door when closing the door, otherwise there will be a risk of pinching.**

NOTE

- If the door is not closed properly, please re-open the door and close it again.
- If the door is not closed properly, there will be a corresponding indication on the instrument cluster display.

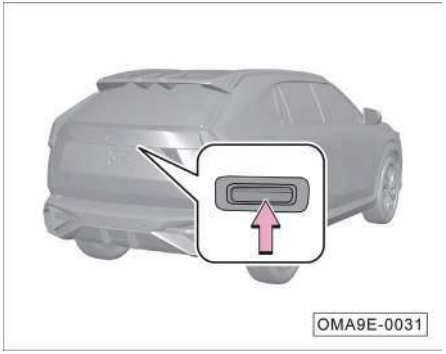
5.3.6 Liftgate

Unlocking liftgate with remote control key

If the vehicle has the PLG function, two presses on the button of the remote control key within the effective range will make the liftgage automatically open to the set position. During opening, if you press this button again, the liftgate will stop opening.

If the vehicle does not have the PLG function, two presses on the button of the remote control key within the effective range will unlock the liftgate with the need of manual opening of the liftgate.

Operation of outside button of liftgate



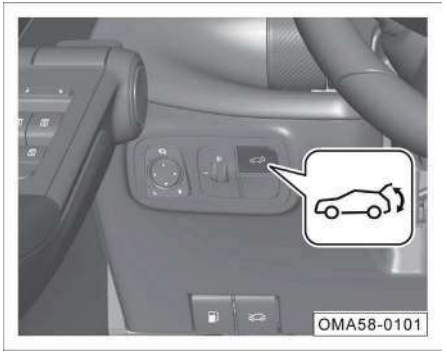
If you carry the intelligent remote control key, which is in the effective range, press the liftgate unlocking button to unlock the liftgate.

- If the vehicle does not have the PLG function, the liftgate needs to be opened manually.
- If the vehicle door has the PLG function, the liftgate will automatically open to the set position. During opening, if you press this button again, the liftgate will stop opening.

NOTE

When the vehicle is unlocked and stationary, if you press the liftgate unlocking button directly without carrying the intelligent remote control key, the liftgate will also be unlocked and opened.

Unlocking liftgate with button on instrument panel



Press and hold the liftgate button to unlock the liftgate.

- If the vehicle does not have the PLG function, the liftgate needs to be opened manually.

- If the vehicle has the PLG function, the liftgage will automatically open to the set position. During opening, if you press this button, the liftgate will stop opening.

Operation of inside switch of liftgate *

- Press the inside switch of the liftgate to electrically close the liftgate.
- In this process, press the inside switch again to suspend opening/closing of the liftgate.

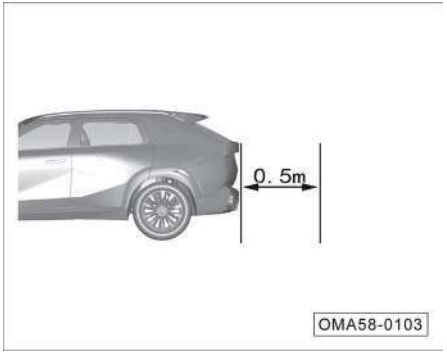
Setting of second height of liftgate:

When the height of opening of liftgate is 55%~98%, press and hold the inside switch of liftgate for about 2 s to set the second height of liftgate successfully.

CAUTION

As the inside switch of liftgate sends an action signal that does not identify opening or closing, the liftgate will confirm the relevant action according to the current state and the last action. If the opening action was previously suspended, pressing the inside switch will close the liftgate; If the closing action was previously suspended, pressing the inside switch will open the liftgate;

Easy open of PLG *



- With the START/STOP button in “OFF” position and doors closed, when you walk into the induction area of liftgate (i.e. about 0.5 m from the liftgate) with the remote control key in hand, the horn will sound once and the high-mounted stop lamp will start to flash, and if you stay there or take a step back, the turn signal lamps will flash and the liftgate will be automatically opened at the same time. If you leave the induction area when the high-mounted stop lamp flashes (4 times or less), the liftgate will not be opened.

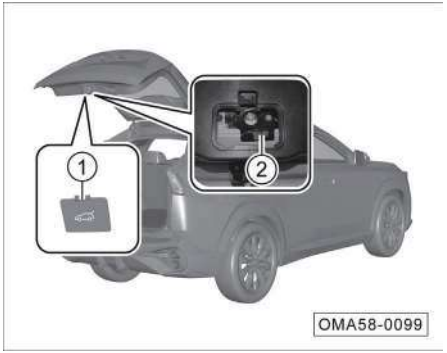
NOTE

- When the liftgate is automatically opened, the horn will sound once, the high-mounted stop lamp will flash 4 times, and the turn signal lamps will flash twice.
- If you leave the liftgate induction area when the high-mounted stop lamp is flashing, this function can be paused, and the liftgate will not be opened.
- If you press the button on the intelligent remote control key when the high-mounted stop lamp is flashing, this function can be paused, and the liftgate will not be opened. To re-activate the easy open function of liftgate, you need to open and then close one door.
- This function can be activated or deactivated by selecting “Settings → Body Accessories → Door Window Lock → Easy Open of Liftgate” on the AV system display.

CAUTION

- When washing the vehicle, make sure that the intelligent remote control key is outside the liftgate induction area; otherwise the liftgate will be opened. Therefore, it is recommended to deactivate this function in this case.
- If you pick up something near the liftgate while carrying the intelligent remote control key, please note that the liftgate may be opened.
- Before activating the easy open function to open the liftgate, make sure that no one or obstacle is within the movement range of the liftgate.

Emergency opening of liftgate



When the vehicle is out of power or the liftgate fails to be opened normally, please try the emergency interior opening of liftgate:

1. Fold the rear seat back. => See page 102
2. Open the liftgate trim cover ①.
3. Move the liftgate emergency switch ② for emergency unlocking and opening of the liftgate.

Closing of liftgate

PLG closing*

- If you press the liftgate locking button ①, the PLG will be automatically lowered until it is closed. In this case, if you press this button again during the closing process, the PLG will stop at the current position.

Manual closing

When the electric opening and closing function of the liftgate is not applicable or fails, the liftgate may be closed manually:

- Lower the liftgate close to the rear bumper cover, and then press down the liftgate firmly by both hands to close it.

CAUTION

During the closing of the liftgate, never place your hands or any part of your body in the area where the liftgate is closed to avoid pinching.

NOTE

- When the PLG is electrically closed from standstill, the turn signal lamp flashes twice and the buzzer sounds.
- When the PLG is closed, the buzzer will sound intermittently.
- If the liftgate is ajar, there will be a corresponding indication on the instrument cluster.

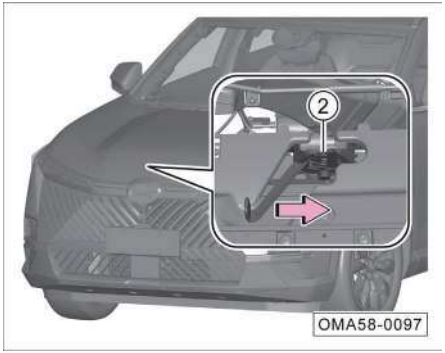
CAUTION

- The PLG must always be closed fully, otherwise accidents may easily occur.
- Be careful when closing the liftgate to ensure that no person or obstacle is within the movement range of the liftgate.
- Always ensure that the closed PLG is locked to prevent suddenly opening during driving.

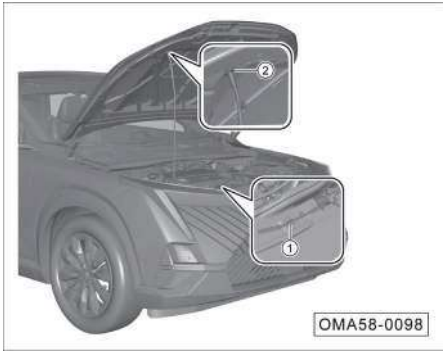
5.3.7 Hood

Opening of engine hood

- If the hood release handle ① is pulled, the hood will be unlocked and pop up slightly.



- Push the locking mechanism ② as arrowed to unlock the engine hood fully.



- Lift the hood to the limit position, take out the stay bar from the stay bar bracket ①, and fix the stay bar in the fixing hole ② to support the engine hood in the limit position.

Closing of engine hood

- Take out the stay bar from the fixing hole ② and place it on the stay bar bracket ①; lower the hood to a height of about 30 cm away from the lock body, and then let it go, so the hood falls freely and then is locked.

⚠ WARNING

- **Before driving, ensure that the engine hood is closed and locked, otherwise, it may suddenly open during driving, resulting in dangerous accidents.**
- **If the engine hood is ajar, the instrument cluster display will display an alarm message. In this case, please stop driving immediately and close and lock the engine hood correctly.**

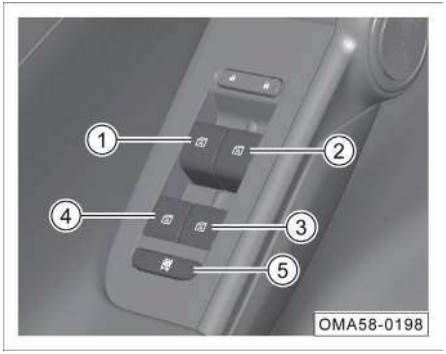
5.3.8 Power window

The power window can be operated when the START/STOP button is in “ON” position, and stays operable within about 30 s after the START/STOP button is turned from “ON” position to “ACC” or “OFF” position, but will become inoperable if any door is opened within this 30 s.

CAUTION

- Please close all windows before leaving the vehicle.
- Do not put your hands on the edges of the windows when closing the windows, otherwise there will be a risk of pinching.

Driver's power window control button



① Left front power window control button
② Right front power window control button
③ Right rear power window button
④ Left rear power window button
⑤ Passenger's power window control button*/electronic child safety lock button*

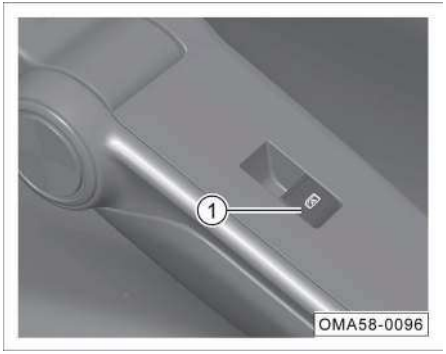
- If the button ① is pulled up to the first stop position, the power window will be lifted for closing until the button is released or the window reaches the highest position.
- If the button ① is pulled up to the limit position, the power window will be lifted automatically for closing until the window reaches the highest position.
- Press the lower end of button ① to the first stop position, and the window will be lowered for opening until the button is released or the window reaches the lowest position.
- If the button ① is pressed down to the limit position, the power window will be lowered automatically for opening until the window reaches the lowest position.

i NOTE

- If you want to stop the window during the automatic lifting or lowering, just press down/pull up the button ①.
- The operation methods of the buttons ②, ③ and ④ are the same as that of the button ①, only corresponding to the respective windows.

- If you press the passenger's door window lock button ⑤*, the button indicator lamp will come on and the front/rear power window control buttons cannot work anymore. To unlock, press the button again and the button indicator lamp goes out.
- Press the electronic child safety lock button ⑤*, then the button indicator lamp lights up, and the rear passenger's power window control button cannot effectively control the corresponding window. To unlock, press the button again and the button indicator lamp goes out.

Passenger's power window control button



- The passenger's power window control button ① may be operated by reference to the driver's power window control button.

Initialization of anti-pinch function *

If the express-up function is not available, or the anti-pinch function fails, or the initialization becomes invalid automatically because the anti-pinch function is triggered multiple times in a short period of time, the power window needs to be initialized again.

1. Pull up the power window control button, and then the window is lifted in steps until it is completely closed.
2. After the window is completely closed, continue to pull up the power window control button and hold it for about 2 s to complete the initialization.
3. After the initialization of the corresponding window, operate the window button to activate the express-down feature, and then continue to press the power window button and hold it for about 2 s, to enable the window to reach a hard stop.
4. Lift the power window button to check whether the express-up feature is available.

⚠ WARNING

- **The window has no anti-pinch function during the initialization learning process. Therefore, please do not use any part of your body or other objects to hinder the closing of the window, otherwise it will cause personal injury and affect the result of the initialization learning.**
- **If the power window system fails, please go to the GAC Motor authorized shop for inspection in time.**

Locking-sensitive window closing function *

If you close and lock the doors without closing the windows (door locking by remote control key, intelligent active locking, or Bluetooth locking* when you leaving the vehicle), the system will automatically close the windows to prevent the vehicle from being damaged. This function can be activated or deactivated via "Settings → Body Accessories → Door/window Lock → Locking-sensitive Window Closing" in the AV system. If the window fails to be closed automatically due to abnormal conditions such as activation of anti-pinch function, the horn will sound 4 times to remind the user that the window closing fails.

CAUTION

The locking-sensitive window closing function is effective only when the battery level and other relevant parts are normal. Do not leave the vehicle until it is confirmed that the windows are fully closed.

Automatic window calibration *

If the window cannot be automatically lifted due to external factors, the window will first lower to the bottom for automatic calibration before automatic lifting.

CAUTION

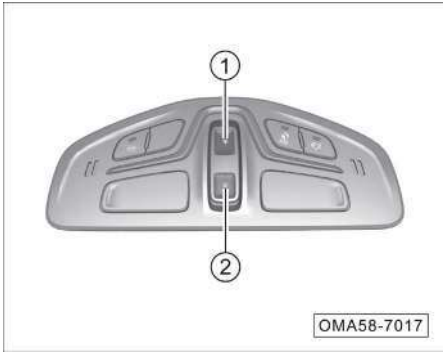
Under special circumstances, an individual window may not be automatically lifted, and in this case, users are required to manually lift windows for calibration.

Window open warning *

When the START/STOP button is set to “OFF” position with any window open, if you open the driver’s door, the system will send a buzzer sound and the instrument cluster display will display the warning message “Window open”.

5.3.9 Electric sunshade*

Button operations



- If you press the switch ①, the electric sunshade will move a short distance for slight opening and then stop.
- If you press the switch ②, the electric sunshade will move a short distance for slight closing and then stop.

- To fully opened the electric sunshade, press and hold the switch ① for several seconds, and then the electric sunshade will automatically move to the fully opened position.
- To fully close the electric sunshade, press and hold the switch ② for several seconds, and then the electric sunshade will automatically move to the fully closed position.

NOTE

If the switch is pressed during the automatic opening or closing of the electric sunshade, the electric sunshade will stop at the current position.

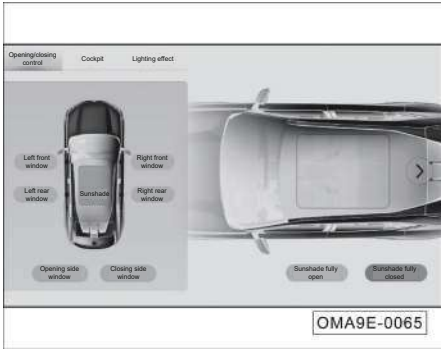
CAUTION

Do not touch the sunshade with hand or object when it is opening or closing; otherwise, the sunshade may incur wrinkle, dislodgement or even failure.

Remote control

- When you press and hold the button on the remote control key with the ENGINE START/STOP button set to “OFF” position, the sunshade will be closed by remote control. In the closing process, it is necessary to press and hold the button, and once it is released, the closing action will stop.

AV system display control



On the AV system display, the opening and closing of sunshade is controlled by clicking the soft keys such as ❮, ❯ , “sunshade fully open” and “sunshade fully closed” in the intelligent scene “car model” or the application menu “My car”.

Electric sunshade anti-pinch function

The electric sunshade has anti-pinch function when sliding closed to prevent the sunshade from catching large items when closed.

- When the electric sunshade is in the sliding area, if the anti-pinch function is triggered, the electric sunshade will move a certain distance in the direction of opening and then stop moving.

CAUTION

Do not operate the electric sunshade when the ambient temperature is below -20°C, as at this temperature the anti-pinch function of the electric sunshade may not be activated, resulting in accidents. In addition, low temperature will also damage the motor to a certain extent.

⚠ WARNING

- **The anti-pinch function of the sunshade cannot prevent pinching of light or thin objects.**
- **Be careful when closing the sunshade, and make sure that no one is within the range of motion of the sunshade closing to avoid being pinched.**
- **The sunshade will stop detecting obstacles at a position where the sunroof is about to be closed fully, so the anti-pinch function will be deactivated at this time.**
- **Do not try to activate the anti-pinch function by your hand or any part of your body, otherwise there will be a risk of pinching.**

Initialization of power sunshade

- Press the sunshade closing switch ①, so that the sunshade will run to the fully closed position.
- Press and hold the sunshade closing switch ①, so that the sunshade will be opened a certain distance first, and then finally run to the fully closed position.
- Release the sunshade closing switch ①, so that the sunshade initialization will be completed.

5.3.10 Basic operation of body anti-theft system

Body anti-theft function - remote unlocking

When the START/STOP button is in the “OFF” position and the vehicle is in the anti-theft state, if you bring the intelligent remote control key to approach the doors and press the unlocking button on the remote control key, all doors will be unlocked to release the vehicle from the anti-theft state, and the turn signal lamps will flash twice.

Body anti-theft function - remote locking

When the START/STOP button is in the “OFF” position and the four doors, engine hood and liftgate are closed, if you take the intelligent remote control key away from the vehicle and press the locking button on the remote control key, all doors will be locked to enable the vehicle to enter the anti-theft state, and the turn signal lamps will flash once.

Activation of body anti-theft function

When the ENGINE START/STOP button is in “OFF” position and the vehicle is armed, if the door is unlocked by an illegal key or is forcibly unlocked, the anti-theft system will be activated, the anti-theft horn will sound and the turn signal lamps will flash.

When the vehicle is locked by remote control and enters the anti-theft state, if the driver’s door is unlocked with the emergency mechanical key, the anti-theft system will trigger the horn to sound and the turn signal lamps will flash.

NOTE

Before or during the anti-theft alarm, if you press the button on the remote control key or switch the START/STOP button to the “ON” position, the anti-theft alarm will be disabled and the vehicle will be released from the anti-theft state; the alarm can be triggered up to 10 times in one alarm cycle.

Engine immobilizer

When the START/STOP button is switched from the “OFF” position to the “ON” position with the body anti-theft state released and the legal key in the vehicle, if the engine immobilizer system passes the verification, it will be deactivated.

If the engine immobilizer system does not pass the verification, the engine cannot be started and an immobilizer alarm will be triggered.

Body anti-theft maintenance instructions

No maintenance is required during normal use. If you have any doubt, please contact the GAC Motor authorized shop.

5.4 Lamps and vision

5.4.1 Exterior lamps

Lamplight combination switch

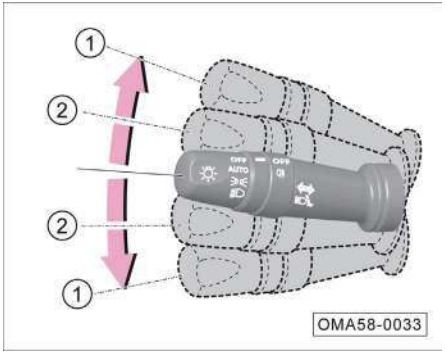
① Light switch

② Rear fog lamp switch

NOTE

- Water vapors or even water drops may appear on the inner surfaces of the lamps under certain conditions (such as high air humidity and after vehicle washing), which is similar to the fogging phenomenon on the windows when the vehicle is traveling in the rain, and does not constitute a malfunction.
- This fogging phenomenon can be eliminated by parking the vehicle in a dry environment, turning on the lamps or driving the vehicle, but may recur.
- If there are a lot of water drops or water ingress in the lamps, please contact the GAC Motor authorized shop for inspection.

Turn signal lamp



- When the START/STOP button is in “ON” position, if you turn the lamplight combination switch up or down to the limit position ① and turn on the right or left turn signal lamp, the corresponding indicator lamp ➡ or ⬅ on the instrument cluster will flash.

Turn signal lamp flashing for lane change

- In case of lane change or overtaking, if you turn the lamplight combination switch up or down quickly to the position ② and then release it to the original position, the corresponding turn signal lamp and the indicator lamp ➡ or ⬅ on the instrument cluster will flash 3 times.

- If you turn the lamplight combination switch up or down and hold it at the position ②, the corresponding turn signal lamp and the indicator lamp ➡ or ⬅ on the instrument cluster will flash continuously. Releasing the switch to the original position can stop the flashing.

CAUTION

If the corresponding indicator lamp ➡ or ⬅ on the instrument cluster flashes faster, one of the turn signal lamps may be faulty, please go to the GAC Motor authorized shop for inspection and repair in time.

Light switch

When the START/STOP button is in “ON” position, turn the light switch ① to activate or deactivate AUTO (automatic headlamp on/off function), (position lamp), (low beam).

When the lamplight switch is turned to the “OFF” position, all lamps will go out.

AUTO (Automatic headlamp on/off)

- Turn the lamplight control switch to the AUTO position to activate the automatic headlamp on/off function.

NOTE

If the automatic headlamp on/off function is activated, the vehicle will automatically turn on or off the headlamp according to the ambient light. When the external natural light gradually becomes dark, the position lamps and the low beam will be turned on simultaneously; when the external natural light gradually becomes bright, the position lamps and the low beam will be turned off simultaneously.

CAUTION

- If the message “Sensor failure; please manually control light” appears on the instrument cluster display, the system will keep the low beam on for the sake of safety. In that case, you should manually control the light and go to the GAC Motor authorized shop for inspection in time.
- The automatic headlamp on/off function may be affected in the haze environment, so please manually turn on the headlamp in this case.

Daytime running lamp *

- When the vehicle is started and the low beams are off, the daytime running lamps will be automatically turned on; when the low beams are turned on or the “READY” indicator lamp goes out, the daytime running lamps will be automatically turned off.

Position lamp

- If you turn the light switch to the position, the rear position lamps, instrument panel lamps, license plate lamps and other lamps will be turned on, and corresponding indicator lamps on the instrument cluster will come on.

NOTE

If you forget to turn off the position lamps when the START/STOP button is turned to “OFF” position and the vehicle is not locked, the position lamps will stay on for about 15 min and then go out automatically in order to save the battery power; when the START/STOP button is turned to “OFF” position and the vehicle is locked, the position lamps will go out immediately.

WARNING

- **When driving at night or on a road with poor visibility, also use other lamps in addition to the position lamps. Otherwise, accidents may easily occur.**
- **At night or in poor visibility road environment, when the vehicle is shut down and pulled over for a short time, it is necessary to indicate the position of the vehicle by lamps. As the position lamps feature the electricity-saving function, do not use the position lamps as parking lamps. Please turn on the hazard warning lamps for warning.**

Low beam

- Turn the light switch to the position to turn on the low beam.

High beam

- After turning on the low beam, if you push the lamplight combination switch forward to the limit position, the high beam will be turned on and the corresponding indicator lamp on the instrument cluster will come on.
- If you pull the lamplight combination switch backward to the original position, the high beam will be turned off.

Headlamp flashing

- If you pull the lamplight combination switch backward to the limit position, the high beam will be turned on.
- If you release the switch, the lamplight combination switch will automatically return to its original position and the high beam will be turned off.

i NOTE

- The high beam may cause dazzling to drivers of oncoming vehicles at close range, which may easily cause accidents. Therefore, please use the high beam reasonably.
- When all the lamps are turned off, if you pull and hold the lamplight combination switch backward, the high beam will stay on, and the corresponding indicator lamp on the instrument cluster will come on.

Manual headlamp leveling

Rotate the knob ① to manually level the headlamp (low beam) at 0, 1, 2 and 3 positions. The level of the headlamp will decrease as the adjustment value increases.

Lamp on warning

When the START/STOP button is set to “OFF” position with headlamps or position lamps on, if you open the driver’s door, the system will send a buzzer sound and the instrument cluster display will display the warning message “Lamp on”.

Follow Me Home

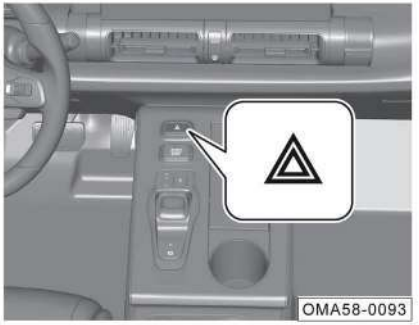
This function can be activated or deactivated by selecting “Settings → Body Accessories → Exterior Lamp → Follow Me Home” on the AV system display.

Fog lamp switch

When the START/STOP button is in “ON” position with the position lamp turned on, turn the fog lamp switch ② to turn on or off the (rear fog lamp).

- After the fog lamp switch ② is turned to the position and then released to the “—” position, the rear fog lamp will come on.
- Rotate the fog lamp switch ② to position and release it to “—” position, to turn off the rear fog lamp.

Hazard warning lamp



If you press the switch with ENGINE START/STOP button in any position, the red indicator lamp on the switch will flash and the hazard warning lamp will be turned on. Press the switch again to turn off the hazard warning lamp.

If the hazard warning lamp is turned on, all turn signal lamps and the indicator lamps or on the instrument cluster will flash simultaneously.

The hazard warning lamp shall be turned on in the following cases so as to attract the attention of other road users and reduce the risk of traffic accidents:

- When the vehicle is faulty.
- The vehicle is at the tail end of a traffic jam.
- The vehicle tows another vehicle or is towed.
- The vehicle is temporarily parked due to poor visibility.

NOTE

- The use of the hazard warning lamp will consume the battery power, so please turn it off when not in use.
- Be sure to strictly abide by the relevant regulations when using the hazard warning lamp.
- In case of emergency, if the hazard warning lamp is faulty, other methods that comply with relevant traffic regulations must be taken to attract the attention of other people on the road.

Vehicle assisted lighting

- If you press the unlock button on the remote control key within the effective range, the position lamps will stay on for auxiliary lighting for a period of time. If you press the unlock button on the remote control key again, the position lamps can stay on for a longer period of time. When you get in the vehicle and switch the ENGINE START/STOP button to the “ON” position, the position lamps will go out.

Vehicle locating lighting

- Press the lock button on the remote control key quickly twice, so the position lamps come on for several seconds and the turn signal lamps flash 4 times for the purpose of helping you locate your vehicle.

5.4.2 Interior amps

Automatic light-on function of dome lamps

- Press the switch ① to turn on the button indicator lamp and activate the automatic light-on function of dome lamps; press the switch ① again to turn off the button indicator lamp and deactivate the automatic light-on function of dome lamps.

Interior light delay off

When the dome lamps are off and the automatic light-on function of dome lamps is activated:

- with the START/STOP button in “OFF” position, the dome lamps will come on automatically if any door is opened, and go out about 30 s after the doors are closed.
- with the START/STOP button in “OFF” position, if any door is unlocked by remote control, the dome lamps will come on automatically and then go out after about 30 s.
- If the ENGINE START/STOP button is switched from the “ON” position to the “OFF” position, the dome lamps will come on automatically and then go out after about 30 s.

i NOTE

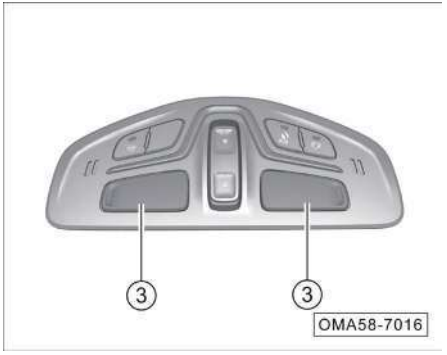
When all the doors are closed and the dome lamps are on as mentioned above, if the car is locked remotely or the Power button is switched to the “ON” position, the roof lamps will go out automatically.

Dome lamp

- When the dome lamps are off and the switch ② is pressed, the button indicator lamp will come on and all dome lamps will come on; when the switch ② is pressed again, all dome lamps will go out.

i NOTE

The switch ② will be ineffective if it is not used to turn on the dome lamps.

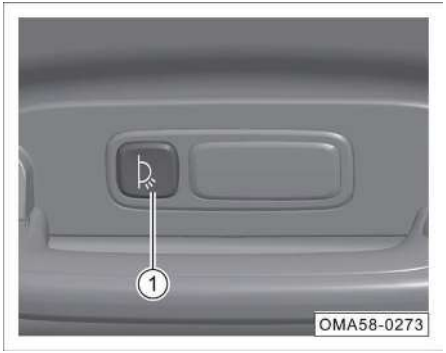


- When the front dome lamps are off, touch the front dome lamp ③ on the corresponding side to turn it on; touch it again to turn it off.

i NOTE

The switch will be ineffective if it is not used to turn on the front dome lamps.

Rear dome lamp



- When the rear dome lamps are off, press the switch ① to turn on the dome lamp on the corresponding side; press the switch ① again to turn it off.

NOTE

The switch ① will be ineffective if it is not used to turn on the rear dome lamps.

Trunk lamp

- If the liftgate is opened, the trunk lamp will come on automatically.
- If the liftgate is closed, the trunk lamp will go out automatically.

Smart ambient light*

Click on the vehicle model in the main interface of AV system or “My Car” in the application menu to enter the My Car interface, and then select “Light Effect” soft key to enter the interior ambient light effect setting interface.

Operation interface:

1. Ambient light switch

- Click the right soft key ◑ of “interior ambient light” to turn on or off the interior ambient light function.

- When the ambient light function is deactivated, other parameters cannot be adjusted; when the ambient light function is activated with the START/STOP button in “ON” position, the ambient light stays on.

2. Ambient light brightness adjustment

- You can adjust the brightness of ambient light by clicking or sliding the ambient light brightness progress bar.

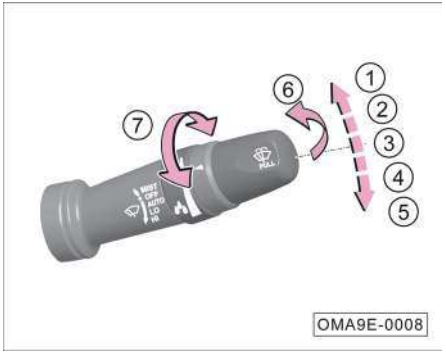
3. Drive mode following switch

- When the drive mode following function is activated, the color of the ambient light will change along with the drive mode. That is to say, when the user changes the drive mode, the ambient light color will change accordingly.

4. Ambient light color

- The user can select the ambient light color by dragging or clicking on the color bar.

5.4.3 Wiper combination switch



When the START/STOP button is in the “ON” position, the wiper combination switch can be operated as follows:

① MIST: manual wiping

② OFF: turning off the front windshield wiper

③ AUTO: automatic wiping

④ LO: low-speed wiping

⑤ HI: high-speed wiping

⑥ turning on the front windshield washer system

⑦ Adjusting knob:

- Adjust the sensitivity of automatic wiping (AUTO)*

MIST: manual wiping

- Turn the wiper combination switch from the initial position to the limit ① MIST position and then release it. The wiper combination switch will return to the initial position, and the front wiper will stop moving after wiping once.
- If the wiper combination switch is turned from the initial position to the limit ① MIST position and then held still, the front wiper will keep working.

OFF: Wiper off

- If the wiper combination switch is turned to OFF position ②, the front wiper will stop wiping.

AUTO: automatic wiping

- If the wiper combination switch is turned to the AUTO position ③, the automatic wiping function will be activated, and the wiper system will adjust the wiper speed according to the current rainfall and the real-time vehicle speed.
- This function can be activated or deactivated by setting the AV system “Settings → Body Accessories → Other Accessories → Auto Wiping”.
- Turn the knob ⑦ up/down to adjust the wiper sensitivity.

CAUTION

- When the message “Sensor failure; please control the wiper manually” appears on the instrument cluster display, for the sake of safety, you should manually control the wiper and go to the GAC Motor authorized shop for inspection in time.
- Before activating the automatic wiping function in winter, please check whether the wiper blade is frozen.
- It is recommended to deactivate the automatic wiping function when washing the vehicle, in dusty weather and in rainless weather to avoid unintentional action of the wipers which may cause damage or personal injury.
- The automatic wiping function is an assist, so the driver should manually operate the wipers when necessary according to the driving situation to ensure driving safety.
- When replacing the front windshield, the rain light sensor needs to be replaced together.
- When the sensor is installed with streaks, scratches and stains, it may cause automatic wiper misoperation.

LO: Low-speed wiping

- If the wiper combination switch is turned to LO position ④, the front wiper will wipe at a low speed.

HI: High-speed wiping

- If the wiper combination switch is turned to HI position ⑤, the front wiper will wipe at a high speed.

Front windshield washer system on

- If the wiper combination switch is turned toward the rear of the vehicle to position ⑥, the front washer will start spraying water and then the front wiper will start wiping.
- If the wiper combination switch is released and returns to its original position, the front windshield washer system will be stopped and the front wiper will wipe once after several seconds.
- After the front wiper stops for several seconds, it will wipe once again so as to clear the residual water stains from the glass.

Front wiper maintenance

- Method 1: Within about 10 s after switching the START/STOP button to the “OFF” position, if you turn the control lever of the wiper combination switch to ① MIST position and then quickly release it to return it to the original position, the front wiper will move to the highest position and then stop, so that the wiper maintenance mode is activated.
- Method 2: With the START/STOP button in “ON” position, select “Settings → Body Accessories → Other Accessories → Wiper Maintenance Mode” on the AV system display to activate the wiper maintenance mode.

5.4.4 Windshield

Windshield glass

The front windshield is made of green glass.

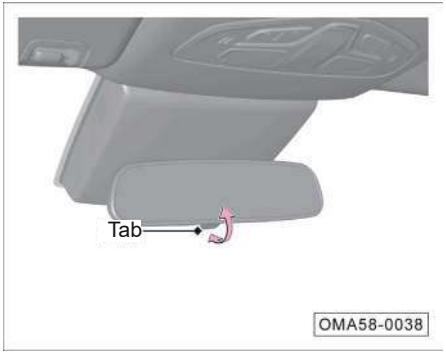
⚠ WARNING

- **Always keep the glass surface clean.**
- **Please affix the necessary identifications according to local traffic laws, rules and regulations. Do not stick paper or hang objects on the surface of the front windshield, otherwise the front view will be obstructed, and a traffic accident is likely to be caused.**

5.4.5 Rearview mirror

Interior rearview mirror

Manual anti-dazzle inner rearview mirror



The interior rearview mirror can be adjusted manually to reduce the light reflected off the mirror surface, thus realizing the optimal rear view.

- As shown in the figure, the tab is at a normal rearview angle, which can be pulled forward to offset the reflective light coming from the rear to achieve the anti-glare function.
- Push the tab backward to return to the normal rearview angle.

Exterior rearview mirror

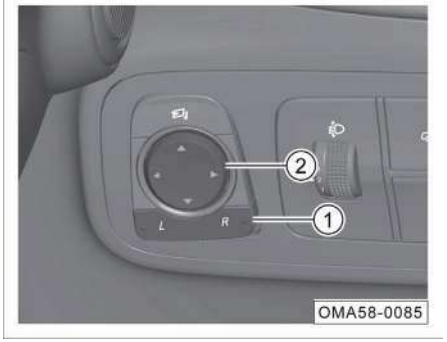
i NOTE

If the exterior rearview mirror malfunctions, please go to the GAC Motor authorized shop for inspection in time.

⚠ WARNING

Although the curved (convex and spherical) rearview mirror can expand the field of view, the reflected object image is smaller and farther than the real object. Therefore, when changing the lanes, do not judge the distance between your vehicle and the following vehicle by the reflected image, otherwise accidents may occur due to wrong judgment.

Electric adjustment



The exterior rearview mirror adjustment button is located at the lower left of the instrument panel.

- Press “L” or “R” end of the selector button ① to select the left or right exterior rearview mirror.
- Press the adjusting button ② to adjust the selected exterior rearview mirror to the appropriate rearview angle.
- After adjusting the exterior rearview mirror, restore the selector button ① to its original state.

⚠ WARNING

Do not adjust the interior rearview mirror during driving, as you will be distracted from driving, causing loss of control to vehicle and dangerous accident thereafter.

Electric folding *

- Press the folding button ③ to fold the exterior rearview mirror electrically.
- Press the folding button ③ again to unfold the exterior rearview mirror electrically.

Automatic folding *

- If the vehicle is locked from outside, the exterior rearview mirror will be folded automatically.
- If the vehicle is unlocked from outside, the exterior rearview mirror will be unfolded automatically.

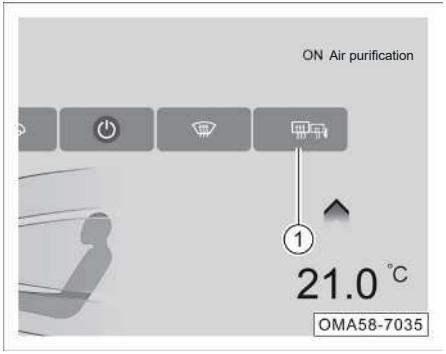
i NOTE

This function can be activated or deactivated via “Settings → body accessories → exterior rearview mirror → automatic folding of exterior rearview mirror” in the AV system.

CAUTION

- If the electric folding function fails or the vehicle does not have the electric folding function, the mirror can be folded manually. After manual folding, please restore it manually. A click sound can be heard when the mirror is manually unfolded.
- Do not manually fold the exterior rearview mirror with electric folding function frequently, otherwise the internal folding mechanism will be damaged and the electric folding function will fail.
- Be careful when operating the electric folding function of the exterior rearview mirror to prevent fingers from being pinched by the rearview mirror and its base.

Defrosting and defogging function *



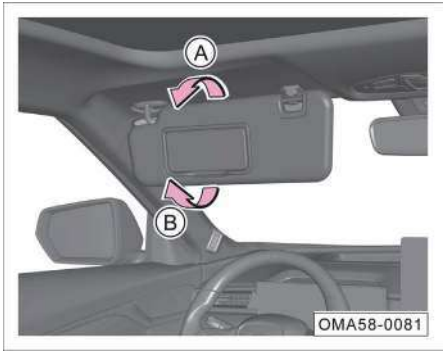
Enter the main interface of front A/C control through the AV system display, and click the soft key ① to turn on / off the function. When the function is turned on, the button indicator lamp comes on.

- The defrosting and defogging function can be activated to clear the fog or frost on the exterior rearview mirrors and the rear windshield.
- This function will be deactivated automatically after about 15 min or manually by pressing down the soft key , and then the button indicator lamp will go out.

CAUTION

- If there is still any residual fog or frost to be cleared after the defrosting and defogging function is deactivated automatically, just press the button again.
- Do not use the defrosting and defogging function for a long time; otherwise the heater may be damaged due to overheating.
- If there is no need to use defrosting and defogging function, please turn off this function to avoid wasting battery power.

5.4.6 Sun visor

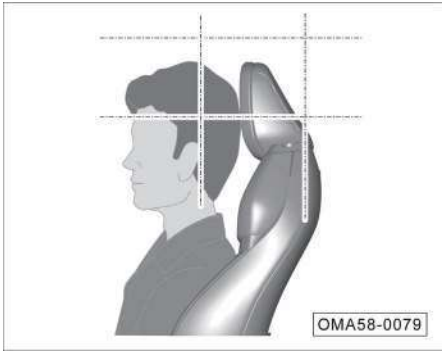


- Turn down the sun visor on the driver's side or front passenger's side in the direction of - arrow A - to block the sunlight from the front windshield.
- To use the vanity mirror, just turn down the sun visor and pull open the vanity mirror cover in the direction of arrow B.

- After turning down the sun visor on the driver's side or front passenger's side, pull it out from the movable bracket in the direction of arrow C to shelter from the incoming sunlight from the side window.

5.5 Seats and storage facilities

5.5.1 Headrest



Correct adjustment of the headrests is essential to protect the occupants and reduce the personal injuries in accidents.

Always adjust the head restraint to the correct position (as shown in the figure) according to their body shape.

⚠ WARNING

In order to reduce the risk of accidental casualties, please strictly observe the followings:

- **Do not adjust the head restraint while driving.**
- **Always keep the headrest in its mounting position. If the headrest is removed or installed improperly, the driver may be seriously injured in an accident.**

Height adjustment of front seat headrests

- Downward adjustment: Press and hold the lock button ①, and press down the headrest to the desired position.
- Upward adjustment: Lift up the headrest directly to the desired position.

i NOTE

The adjustment method of rear seat headrests * is the same as that of front seat headrests.

5.5.2 Front seats

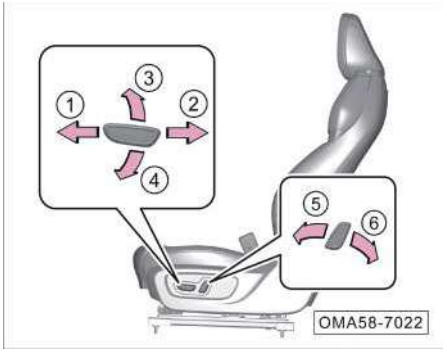
i NOTE

When measuring the depth of the seat cushion, be sure to adjust the longitudinal position of the seat to the middle of the slider rail and the seat back to the normal operating state (25°).

⚠ WARNING

- **Do not place objects under the front seat. The objects may be caught between the seat and the guide rail and hinder the seat locking.**
- **Do not adjust the seats when the vehicle is running, which is very likely to cause casualties. The front seats can only be adjusted when the vehicle is stationary.**
- **Never leave children alone in the vehicle, because the power seat adjustment mechanism still works after the START/STOP button is set to "OFF" position; if the children accidentally operate the power seat, an accident may occur.**

Power seat *



Forward and backward adjustment of seat:

- Push the switch in the direction of arrow ① or ② to slide the seat forward or backward.

Upward and downward adjustment of seat (for only driver's seat):

- Pull the switch in the direction of arrow ③ or ④ to lift or lower the seat cushion.

Forward and backward adjustment of seat back:

- Pull the switch in the direction of arrow ⑤ or ⑥ to recline the seat back forward or backward.

Manual seat *

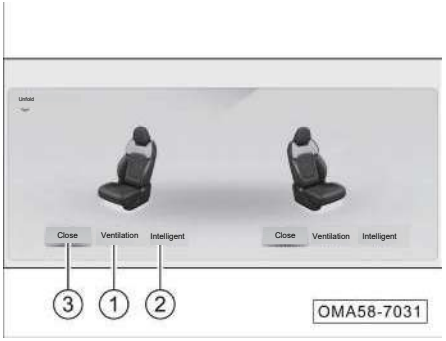
Forward and backward adjustment of seat:

- Pull up the adjusting lever in the direction of arrow ① to slide the seat forward or backward. Then release the adjusting handle, and slide the seat forward or backward slightly until the seat is firmly locked.

Forward and backward adjustment of seat back:

- Pull up the adjusting handle in the direction of arrow ② to adjust the seat back to a desired position, and then release the handle.

Seat ventilation



Set the START/STOP button to “ON” position, and click the seat ventilation/heating icon at the bottom of the AV system main interface, so that the seat ventilation/heating setting interface will pop up.

① Ventilation

- When you click “Ventilation”, the seat ventilator will work in the 3rd ventilation level by default, and you can click the key 1/2/3 to adjust the ventilator to the desired ventilation level.
- The seat ventilator has three ventilation positions, among which the 3rd position has the highest fan speed followed by the 2nd position, and the 1st position has the lowest fan speed.

② Intelligent

- Click “Intelligence” to turn on the intelligence mode of seat ventilation.

③ OFF

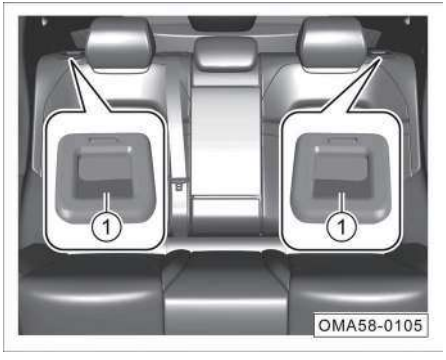
- Click “Off” to turn off the seat ventilation function.

CAUTION

- Do not kneel on the seat or apply pressure to a point on the seat or seat back, in order to avoid damaging the electrical components in the seat.
- If it is found that the seat fan does not work after the seat ventilation function is turned on, immediately turn off the seat ventilation function and go to the GAC Motor authorized shop for inspection and repair in time.

5.5.3 Rear seat

Rear seat back folding down / reset



Folding down:

- Pull the seat back switch ① towards the front of the vehicle and turn the seat back forward to recline the seat back.

Reset:

- Push the rear seat back directly backward until the seat back is locked.

i NOTE

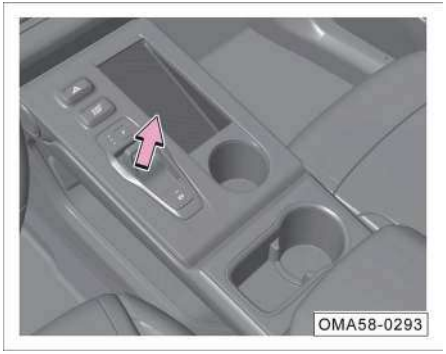
Pull the seat back switch ① towards the front of the vehicle and push the seat back backward at the same time until the seat back is locked. The rear seat back can be adjusted to a certain angle.

5.5.4 Storage facilities

Storage compartment on door interior trim panel

- Place beverage bottles, map manuals and other articles here.

Instrument panel storage compartment

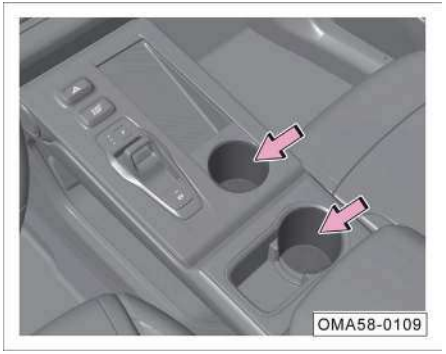


- Place small articles here.

NOTE

For models with mobile phone wireless charging function, this area is used for mobile phone wireless charging, and other articles are not allowed to be placed herein until the mobile phone wireless charging function is turned off. => See page 108

Cup holder

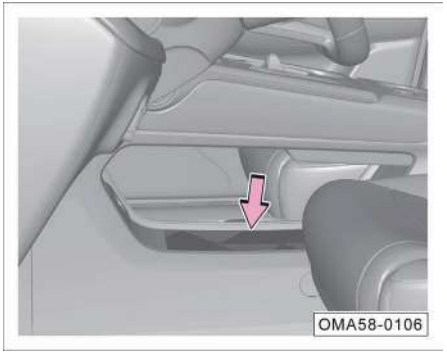


- Front cup holder: hold beverage bottles.

WARNING

Do not place hot beverages on the cup holder, or hot beverages may spill out during vehicle driving, scalding the occupants.

Instrument panel lower storage compartment



- Place books, ipad, etc. here.

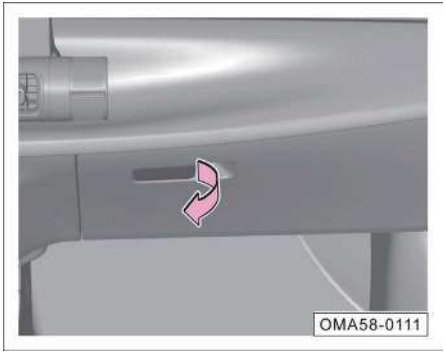
Front central armrest box

- Open the front seat central armrest box cover upward to place items such as wallets.

Storage bag on the back of front seat

- Pull open the storage bag backwards to place books, foldable umbrellas and other articles.

Front passenger's glove box



- Pull the handle to open the glove box to place items such as document bags.
- Push back to close the glove box until you hear a "click" sound.

⚠ WARNING

The glove box must be closed when the vehicle is traveling, otherwise the articles in the glove box may fly out and cause personal injury to the occupants in case of an emergency braking or an accident.

5.5.5 Low battery reminder

Function description:

The vehicle continuously monitors the battery status. When it is detected that the battery is low, there is a risk of dead battery. The AV system and instrument cluster will remind the user to start the engine to charge the battery, thus improving the start performance of the vehicle and prolonging the service life of the battery.

NOTE

- The low battery reminder function only reminds the state of low battery level, which does not mean that the battery is damaged.
- The low battery reminder cannot prevent dead battery, and the user is required to start the engine in time to charge the battery.
- The use of incompatible battery, or irregular disassembly and modification of vehicle electrical equipment may cause the low battery reminder function to be mistakenly triggered or not triggered.

Precautions:

When the vehicle is not started, the battery is not being charged, and if the electrical devices (such as radio, lights, etc.) are switched on in this case, the battery will be consumed rapidly. Therefore, if you need to use the electrical device for a long time, please start the vehicle.

In case of short-distance driving where the battery charging duration is very short, it is recommended to keep the vehicle running for a period of time.

If your vehicle is out of service for a long time, it is recommended to start the vehicle regularly and run it for a period of time to charge the battery.

5.5.6 Quiescent current management

Function description:

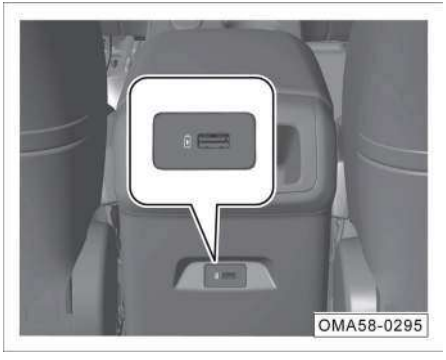
This function continuously monitors the electricity consumption of power consumers and the battery SOC during parking, when low battery voltage is detected, gradually turn off unnecessary electrical devices to decrease the electricity consumption of electrical devices, thus avoiding deep discharge of battery and extending the parking time of the vehicle. After the vehicle is started again, the power supply to those electrical devices will be immediately resumed.

Precautions:

During the vehicle parking period, some comfort entertainment functions will be affected when the battery level is low. After the vehicle is activated, some comfort entertainment functions will return to normal.

5.5.7 Power outlet/USB port

Central armrest box rear USB interface

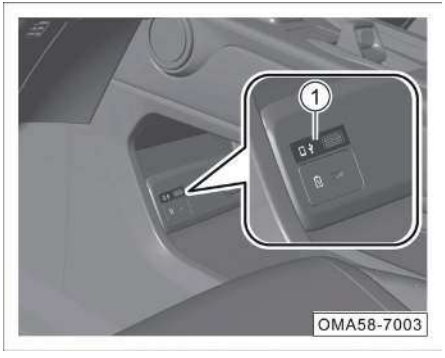


- With the ENGINE START/STOP button in the “ACC” or “ON” position, a device to be charged can be connected directly for charging.

i NOTE

The rear USB interface is only used for charging.

Front USB interface

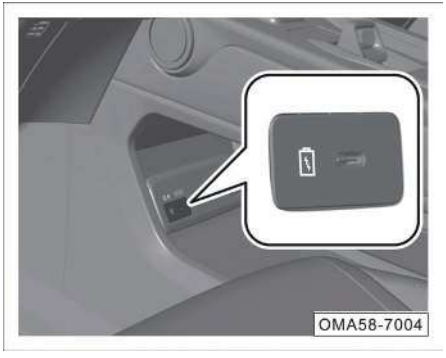


- With the ENGINE START/STOP button in the “ACC” or “ON” position, a mobile device can be connected directly for use.

i NOTE

USB1 port ① supports the charging, media source playback and OTG (CarLife) functions.

Front TYPE-C interface



- With the ENGINE START/STOP button in the “ACC” or “ON” position, a mobile device can be connected directly for use.

i NOTE

The TYPE-C interface is only used for charging.

Front 12 V power outlet socket

- With the START/STOP button in the “ACC” or “ON” position, open the power outlet cover and connect a device directly to charge it.

NOTE

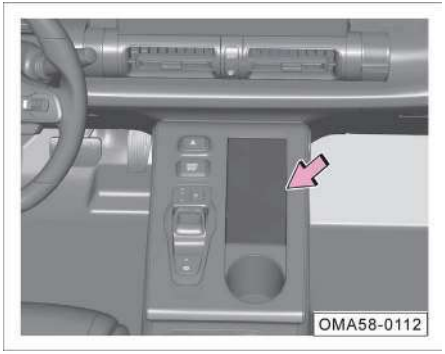
Devices up to 12V/120W are supported.

5.5.8 Mobile phone wireless charging system *

The mobile phone wireless charging system utilizes electromagnetic induction to realize the charging of the mobile phone without the need for wire connections.

CAUTION

The mobile phone wireless charging system is only suitable for the Qi-certified mobile phones. GAC will not assume liabilities and losses for any accident caused by the use of mobile phones or other wireless charging receivers that have not passed the “Qi” certification.

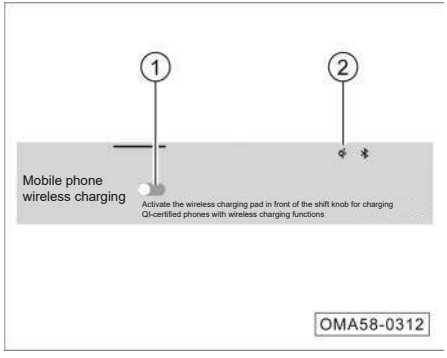


The wireless charging effective zone is on the right side of the shift lever. To charge the mobile phone, please align its charging coil with the “Qi” logo to ensure the normal charging.

NOTE

The wireless charging area will automatically rise or fall according to the wireless charging state. This function can be activated or deactivated via “settings → body accessories → other accessories → automatic lifting of storage box” in the AV system.

Mobile phone wireless charging switch



The wireless charging function of the mobile phone is in ON status by default, and when the ENGINE START/STOP button is in the “ON” position:

- Method 1: In the AV system “Settings → body accessories → other accessories → mobile phone wireless charging” click the soft key ① to enable or disable the mobile phone wireless charging system.
- Method 2: Click the soft key ② on the status bar on the AV system display to turn on or off the mobile phone wireless charging system.

i NOTE

After the mobile phone wireless charging system is turned on, the status bar icon ② lights up, and the icon status will change according to the use of the mobile phone wireless charging system. After you click the icon, the corresponding text information will pop up.

Symbol status

Symbol	Color	Status	NOTE
	Grey	OFF	The mobile phone wireless charging function is deactivated
	White or black	Standby	Mobile phone wireless charging function has been turned on, please use a Qi-certified device
	Green	Charging/ fully charged	-
	Red	Charging failure	Please refer to “Mobile phone wireless charging failure” table

Mobile phone wireless charging failure

Causes	Troubleshooting
The internal temperature of the wireless charging module is too high.	The temperature is too high, so please move away the mobile phone and make another attempt later.
There are metallic foreign objects in the WCM area or the mobile phone is deviated	There are metallic foreign objects or the mobile phone is placed improperly, so please clear the foreign objects and relocate the mobile phone.
The power supply voltage of the wireless charging module is too low or too high.	The voltage is abnormal, so please move away the mobile phone and make another attempt later.
The charging power requested by the mobile phone terminal is too high, or the WCM transmission power is too high	The power is abnormal, so please move away the mobile phone and make another attempt later.
The status of the mobile phone is abnormal.	The charging is interrupted, so please move away the mobile phone and make another attempt later.

NOTE

- GAC will not assume responsibility for any problem caused by abnormal use (such as the use of external wireless charging coil); if the product is disassembled or modified without any authorization, the free warranty service will be invalidated.
- Only one mobile phone can be charged at a time.
- On bumpy roads, the mobile phone wireless charging function may be intermittently discontinued. If the mobile phone deviates from the charging area and its charging stops, please move the mobile phone back to the charging area.
- The effectiveness of wireless charging function depends on both the infotainment unit and the mobile phone, and if either of them is faulty, it may cause charging failure.
- The charging of the mobile phone may be discontinued when the temperature is too high, and will be continued after the temperature decreases.

CAUTION

- Do not spill water into the storage box, so as to prevent any damage to the electronic components due to water entering the WCM.
- Do not place heavy objects in the charging area to avoid damage to the mobile phone wireless charging system.
- If the product is faulty and cannot be used normally, please stop using it and go to the GAC Motor authorized shop for inspection and repair in time.
- If there is a metal foreign object between the mobile phone and the charging area during the wireless charging, do not remove the metal object immediately by hand for fear of finger scalding, You should turn off the wireless charging function immediately, then wait until the foreign object cools down before removing it.
- After the automatic lifting function of the storage box is turned on, please clean up the sundries in the storage box in time to avoid the debris caught during lifting and lowering the storage box and damage to the vehicle.

⚠ WARNING

- **Do not place anything between the mobile phone and the charging pad during charging. Non-metallic articles may cause the charging performance degradation. Magnetic cards, chip cards or other similar articles may be damaged. Metal foreign objects such as keys and coins may be heated, causing hidden driving safety hazards.**
- **To place metal foreign objects in the mobile phone wireless charging area, please turn off the wireless charging function through the AV system menu first to avoid potential safety hazards caused by heating of metal in the charging area.**
- **When the driver is not in the vehicle, please do not charge the mobile phone in the vehicle, so as to avoid unnecessary safety accidents.**
- **When driving the vehicle, do not check the charging status of the mobile phone for a long time to avoid traffic accidents.**

5.5.9 Trunk

In order to ensure the maneuvering stability of the whole vehicle, the luggage shall be placed as evenly as possible, and the heavy objects shall be placed at the front of the trunk.

⚠ WARNING

- **The center of gravity of the vehicle carrying heavy objects may change. If heavy objects in the trunk suddenly slip, the maneuvering stability of the vehicle will change.**
- **The items in the trunk must be fixed, otherwise the items may fly forward and injure the occupants in the vehicle in case of emergency braking or accident.**
- **Never place fragile, flammable and explosive articles in the trunk!**

Trunk volume

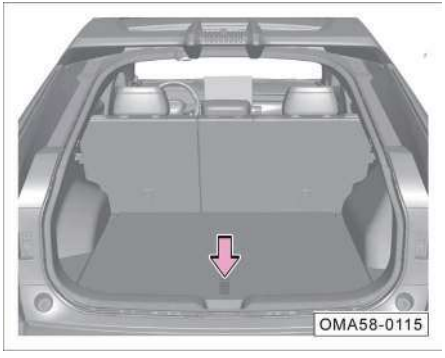
- Fold down the rear seat back to increase the trunk capacity. => See page 102

CAUTION

When fluids are to be loaded, ensure that the container is such sealed that no leakage will occur. Avoid placing liquids on the seat back folded down to prevent liquid leakage and thus wetting the seat.

Objects in trunk

Trunk carpet



- Pull up the drawstring and open the trunk carpet.

Warning triangle

- Pull up the drawstring and open the trunk carpet.
- There is a warning triangle ① in the trunk storage box. Use of warning triangle. => See page 274

Driver's tools/spare tire

- Pull up the drawstring and open the trunk carpet.
- A spare wheel ① and a driver's tool kit ② are provided in the storage box in the trunk. => See page 273

5.5.10 Luggage rack

The luggage rack of this vehicle is a decorative piece and cannot be used to directly carry articles on it.

5.5.11 Accessories and modifications

Data labels and signs indicating important data and information about the use of the vehicle are affixed to the fuel tank cap, engine hood latch and other components of the delivered vehicle. Do not remove or damage these labels and signs, and always keep the data and information on them legible.

The vehicle is designed with the latest safety technologies by GAC to ensure excellent active safety and passive safety. Therefore, in order to maintain the excellent characteristics of this vehicle, please be sure to consult the GAC Motor authorized shop before installing accessories or replacing parts.

It is recommended to use accessories and parts approved by GAC. Parts other than GAC ones are not covered by the warranty.

⚠ WARNING

The installation of inappropriate accessories or the modification of the vehicle may affect the maneuvering stability and other performance of the vehicle, and even may cause serious casualties.

To install a car phone, alarm device, transceiver, low-power AV system, etc., ensure that they will not interfere with the electronic control unit such as anti-lock braking system (ABS) of the vehicle.

Before installing the accessories, please ensure that:

1. The accessories neither dim the lamps, nor affect the normal operation or performance of the car.
2. For the vehicle equipped with side curtain airbags, the accessories must not be installed on the B-pillar or across the rear door window. Because the installation in these areas will interfere with the normal function of the side curtain airbags.

i NOTE

When additions (such as headrest, seat cover, floor mat, sun protection mat, etc.) are required, inferior additions may contain VOCs that do not meet national standards, and may emit unusual odors, causing hidden dangers that affect the air quality in the vehicle; therefore, the genuine high-quality additions are recommended to ensure a comfortable driving environment.

Modification of vehicle

Dismantling the parts from the vehicle or replacing the genuine parts with non-GAC Motor parts will seriously damage the maneuvering stability and reliability of the vehicle. For example:

- If larger or smaller wheels and tires are installed, they will interfere with the normal operation of the anti-lock braking system (ABS) and other systems.
- The modification of the steering wheel and other safety devices may cause the system failure.

⚠ WARNING

Improper modification of the vehicle or installation of unsuitable accessories is likely to cause failures and accidents. The accessories and parts approved by GAC are always recommended, because the adaptability, reliability and safety of these accessories and parts have been strictly verified by GAC.

⚠ WARNING

- **Improper modification or maintenance of the vehicle may weaken the protective effect of the airbag, which results in system failure and causes fatal accidents. The accessories such as beverage cup holder and mobile phone holder shall not be installed or connected to the cover of the airbag assembly or within the working range of airbags.**
- **Improper operations or modifications of the vehicle (modification of the engine, brake system or components that affect the performance of wheels and tire) will affect the function of the airbag system and cause serious casualties.**
- **Do not install wheels and tires that are not approved by GAC.**
- **The modifications of the front and the engine compartment of the vehicle may weaken the function of the pedestrian detection system and violate road traffic regulations.**

5.6. A/C system

5.6.1 General description

The A/C filter can filter pollen and dust entering the air inlet of A/C system.

The A/C filter must be regularly cleaned and replaced according to the Regular Maintenance Schedule in the *Warranty Manual*.

If the vehicle often runs in areas with poor air quality, the replacement interval of the A/C filter should be shortened. If the airflow from the A/C air outlet is not as smooth as usual, it may be due to the dirty and clogged A/C filter. In this case, clean or replace the A/C filter as soon as possible.

⚠ WARNING

If the air in the vehicle is foul, it will make the driver easily fatigued, lack of energy, and distracted, which is easy to cause an accident, resulting in personal injury or even death. Therefore, enable the air circulation mode according to the actual situation.

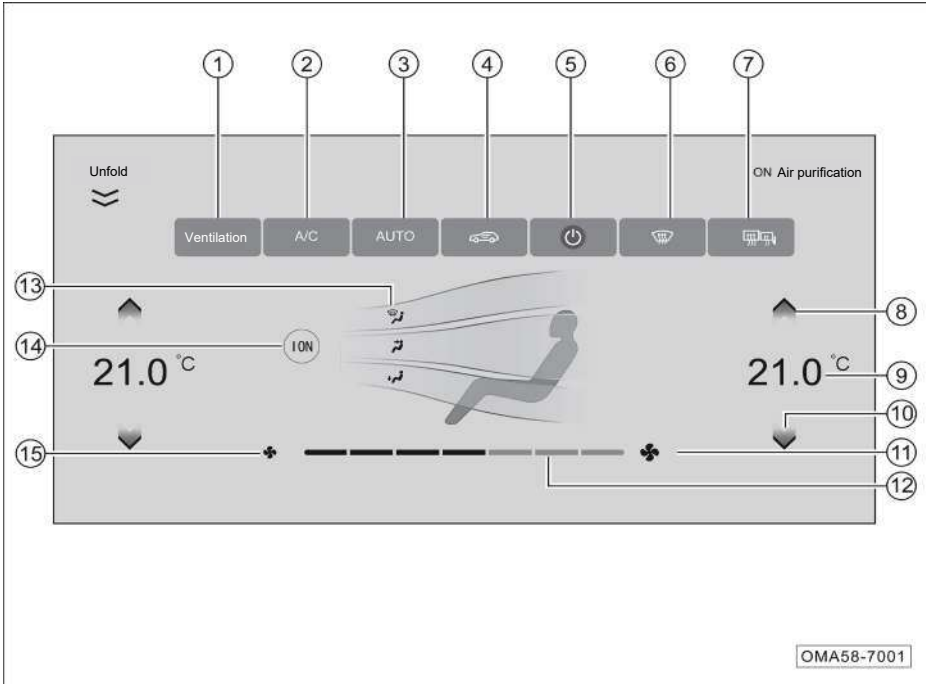
CAUTION

If the A/C system has failure (such as no cooling, odor, etc.), please go to the GAC Motor authorized shop for inspection.

i NOTE

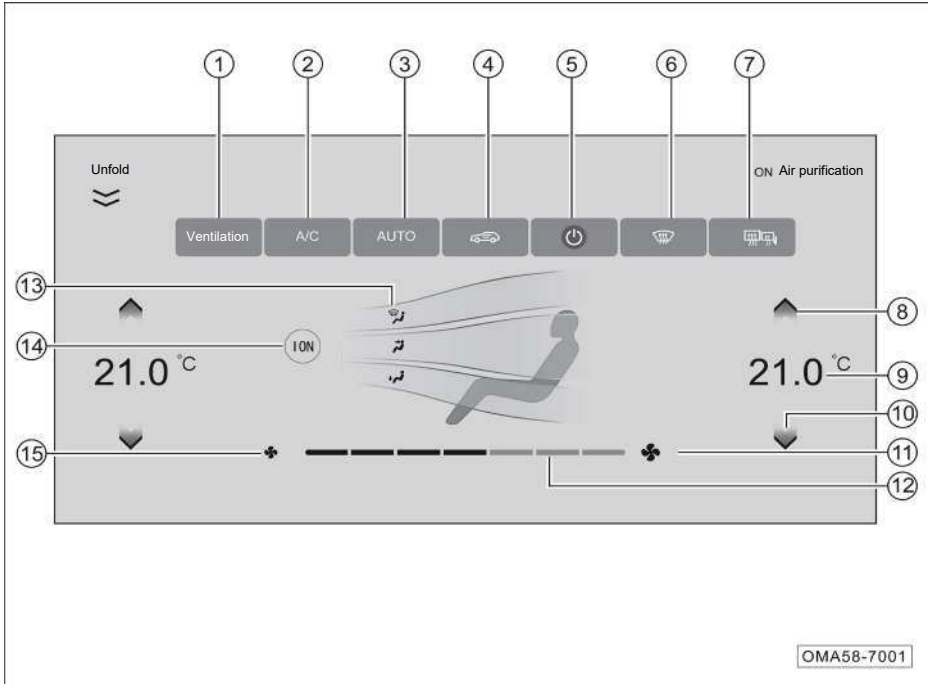
- The HVAC system can be operated when the ENGINE START/STOP button is in “ON” position.
- When the A/C is turned on, there will be water dripped under the vehicle. Prolonged parking with the A/C on will cause accumulated water, which is normal.
- Regularly clean the front windshield wiper cover and remove snow, ice, and leaves to avoid clogging the A/C air intake and ensure normal air intake.
- The A/C system can achieve its maximum effect with windows closed. However, when the inside temperature is high under hot sun, open the windows briefly to dissipate the inside heat, and then enable the A/C for cooling.

5.6.2 A/C system



A/C control interface description

① Ventilation soft key *
② A/C soft key
③ AUTO mode soft key
④ Recirculation/fresh air mode button*
- Recirculation mode soft key
- Fresh air mode soft key
⑤ ON/OFF soft key
⑥ Front windshield defrost/defog soft key
⑦ Rear windshield and exterior rearview mirror defrosting and defogging soft key*/rear windshield defrosting and defogging soft key*
⑧ Temperature up soft key
⑨ Temperature display
⑩ Temperature down soft key
⑪ Fan speed up soft key



A/C control interface description (continued)

⑫ Fan speed display

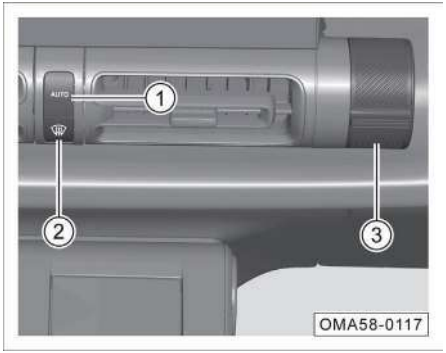
- Display the air volume (7 levels), swipe the button left and right to adjust the air volume.

⑬ Air supply mode soft key

⑭ Plasma purification function soft key*

⑮ Fan speed down soft key

A/C control buttons



① AUTO button/A/C switch button
② Front windshield defrost/defog button
③ Temperature adjustment knob

Temperature control button

- Set the interior temperature by clicking the AV system ∧ soft key or ∨ soft key.
  Press and hold the ∧ soft key or ∨ soft key (for more than 0.5 s), so that the temperature starts scrolling, and release it to end scrolling.
- The temperature can be adjusted by toggling the temperature adjustment knob up and down on the right side of the instrument panel.
- The set temperature is adjustable within 18.5~31.5°C at an increment/decrement of 0.5°C. When the set temperature is lower than 18.5°C, the display will show LO, and when the set temperature is higher than 31.5°C, the display will show HI.

In AUTO mode, when LO/HI is displayed, the system will keep high air volume.

In AUTO mode, in order to obtain the most satisfactory inside temperature, it is recommended to set the temperature to 25.0 °C, and adjust the temperature if necessary.

CAUTION

The temperature value displayed on the AV system display is the target value of temperature setting, not the actual measured value of the indoor temperature.

A/C button

Click the A/C soft key of the AV system to turn on/off the A/C compressor.

When the outside temperature is below 0°C, if the A/C cooling (dehumidification) function is activated, the indicator lamp will be on, but the compressor may not work.

When the A/C switch is highlighted, it means that the compressor needs to be turned on (the compressor may not be turned on).

When the A/C switch is not highlighted, it means that there is no need to turn on the compressor (the compressor must be turned off).

Air volume setting

1. Click or soft key to increase/decrease the fan speed by one level. The AV system will display the corresponding fan speed.
2. The air volume level can be adjusted by soft key "+" and "-" on the left side of the AV system display.

In automatic mode, the HVAC system will automatically control the air volume, and operating the air volume adjustment soft key will change the system state from AUTO mode to manual mode.

Turning off the A/C

To turn off the A/C system, click the soft key in the AV system, or press the AUTO button* or the ON/OFF button* on the front A/C control panel.

After the HVAC system is off:

- Click the AV system soft key, soft key, */* soft key with the HVAC system off.
- Click AV system soft key, soft key, soft key, A/C soft key, (air volume Up) soft key, soft key, AUTO soft key *, plasma purification soft key *; Press the AUTO button of the front A/C control panel, and button to turn on the A/C system.

Air circulation

Repeatedly click the , or * soft key to switch the air circulation among the auto recirculation/fresh air mode, recirculation mode and fresh air mode.

- Recirculation mode: The air circulation enters the recirculation mode
- Fresh air mode: The air circulation enters the fresh air mode
- Auto recirculation/fresh air mode includes automatic recirculation mode and automatic fresh air mode. This function automatically controls the A/C air inlet mode according to the ambient temperature and the outside air quality (for models with air quality sensor). When the outside air quality is poor, the recirculation mode will be set; when the outside air quality is good, the fresh air mode will be set.

CAUTION

- Long-term recirculation will cause accumulation of carbon dioxide in the vehicle, which is not conducive to keeping driver clearheaded.
- The recirculation mode in cold or rainy days can easily cause the windows to mist up, affecting the driver's visibility and probably causing serious accidents.

Automatic mode *

If the AUTO soft key on A/C interface of the AV system display is clicked or the AUTO button on the FCP is pressed, the button indicator lamp will come on and the A/C system will enter the AUTO mode. The following functions will be automatically controlled according to the set temperature:

- Outlet air temperature
- Outlet air volume
- Air supply mode
- Air circulation mode.*
- Working state of the A/C cooling function
- Working state of plasma purifier*

Press the , or soft key to exit the AUTO mode of the A/C system.

Front windshield defrost/defog button

Press the front A/C control panel button or click AV system soft key. The button indicator lamp lights up, and the front windshield defrosting and defogging function are turned on.

The button indicator lamp will go out, the front windshield defrost/defog function will be turned off and the state before defrosting/defogging will be restored if the button is pressed again; or press the AUTO button to enter the AUTO mode or turn off the front windshield defrost/defog function.

CAUTION

- When the temperature is set to the lowest, the defrost/defog function will cause the outer surface of the windshield to mist up, affecting the driver's visibility and probably causing serious accidents. To use the defrost function, it is recommended to set the temperature to a hot or warm position.
- When using the defrost/defog function, if you manually turn off the A/C cooling function, it will cause the front windshield to mist up, affecting the driver's visibility and probably causing serious accidents.
- As for the defrost and defog functions, for quick defrosting and defogging, the fan speed is set to level 5 or above by default, and the noise at the air outlet is relatively large. If you want to reduce the noise, you can manually reduce the fan speed on the premise of ensuring the driver's sight.

Rear windshield defrost/defog function

If the */ * button on the AV system display is clicked, the rear windshield defrost/defog function will be activated, and the rear windshield and exterior rearview mirrors* will be electrically heated.

If the */ * button is clicked again, the rear windshield defrost/defog function will be deactivated. If you do not manually turn off the rear windshield defrost/defog function, this function will be automatically deactivated after 15 minutes.

NOTE

- With the engine shut down, using the rear windshield defrost function for a long time will cause low battery voltage, making it impossible to start the engine.
- The rear defrost function is limited to ensure starting performance under low battery.

Air supply mode

Click the air supply mode button on the A/C control interface of the AV display or in the resident toolbar at the bottom of the AV display to adjust the front air supply mode.

Switch the AV system to the A/C system control interface, click the soft key to switch the air supply mode manually; in the AUTO mode, the A/C system will automatically control the air supply mode, and when the soft key is pressed, the system will exit the AUTO mode.

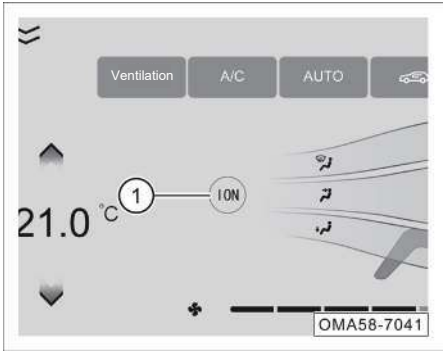
When manually selecting through the A/C control interface, click the soft key to switch cyclically according to the following air supply modes:

- Panel mode: Air flows out from the panel outlets.
- Panel/floor mode: Air flows out from the panel and floor outlets.
- Floor mode: Air flows out from the floor outlets.
- Floor/defrost mode: Air flows out from the front windshield defrost outlets and floor outlets.
- Defrost mode: Air flows out from the front windshield defrost outlets.

NOTE

- The panel/floor mode is mainly used when the outside temperature is slightly lower in spring and autumn. Therefore, the temperature of the upper outlets is slightly lower than that of the lower outlets, which is a normal phenomenon.
- The air supply mode, set temperature, etc. can be adjusted for personal comfort.
- To ensure that the HVAC system can effectively and automatically control all air supply modes, please keep all air outlets open.
- During cold start in winter, in the auto mode, the A/C system will start from the defrost mode and enable a gradual transition to other modes.

Negative ion air purifier *

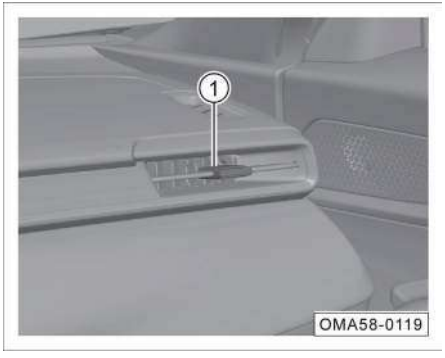


Switch the AV system to the A/C control interface, and click the “Plasma purifier” soft key ① to turn on the negative ion air purifier. Then, the negative ion air purifier will produce negative ions ti effectively decompose harmful gases such as formaldehyde and benzene in the vehicle and thereby purify the air in the vehicle.

Click plasma purification soft key ① again, so that the HVAC system will turn off the negative ion air purifier.

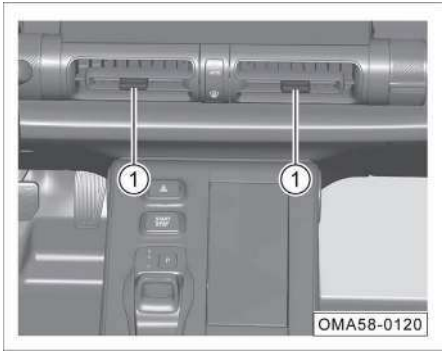
5.6.3 A/C air outlet

Panel side air outlet



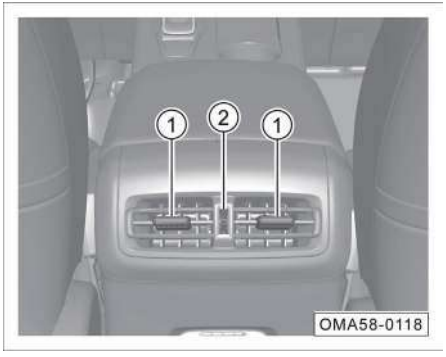
- Toggle the paddle ① to adjust the air direction or close the air outlet.

Instrument panel central air outlet



- Toggle the paddle ① to adjust the air direction or close the air outlet.

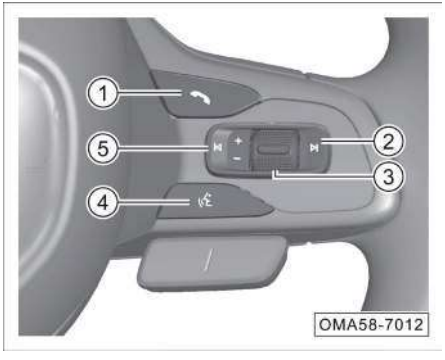
Rear air outlet



- Toggle the paddle ① to adjust the air direction.
- Turn the knob ② to adjust the air volume or close the air outlet.

5.7 AV system

5.7.1 Control buttons on the right of steering wheel



① Answer call/hang up button

- When there is an incoming call via the Bluetooth, you can give a short press on this button to answer the call.
- When there is an incoming call via the Bluetooth, you can give a long press on this button to hang up.
- When there is no incoming call via the Bluetooth, you can press this button to enter the Bluetooth Dialing interface.
- When the Bluetooth device is not connected, press this button to enter the Bluetooth setting interface.

② Next song/channel button

- In radio mode, press this button to automatically search for a valid station with higher frequency. If a valid station is found, the automatic search will be stopped and the station will start playing.
- In media source playing mode, press this button to skip to the next track.

③ Audio source switching button/volume adjustment button/mute key

- Press this button repeatedly to switch as follows: FM → AM → USB → Bluetooth Music → FM.
- Press and hold this button to mute the media source, and then press and hold this button again to unmute it after muting.
- Toggle up/down this button to adjust the sound volume.

④ Voice button

- Press on this button has no effect.
- With the mobile phone connected to the AV system, after the CarPlay function is activated, press and hold this button to activate CarPlay voice function, and press and hold this button again to deactivate the voice button.

⑤ Previous track/channel button

- In radio mode, press this button to automatically search for a valid station with lower frequency. If a valid station is found, the automatic search will be stopped and the station will start playing.
- In media source playing mode, press this button to skip to the previous track.

5.7.2 Basic operation

Description of function areas in main interface:

① Smart card area

- Click the cards to quickly enter the corresponding function interfaces.

② Drop-down menu bar area

- Pull down to enter the drop-down menu bar control interface.

③ Smart scene area

The smart scene area includes car model, A/C scene (rapid cooling, rapid heating) and driving mode switching.

④ System status bar

- This area indicates “Time”, “Bluetooth Connection”, “Wireless Charging”, etc. Click an icon to enter the corresponding function interface.

⑤ Bottom toolbar

- Home button : click it to return to the main interface.
- System menu button : Click it to enter the application menu interface.

- Driving control panel button : Click it to enter the driving control panel.
- A/C information display/control bar area: display the current A/C information, click the A/C area to enter the A/C setting interface.

⑥ Application menu interface

- Click the menu button on the desktop bottom toolbar to enter the system detailed application menu interface.

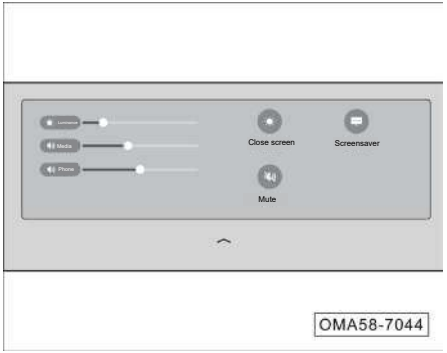
CAUTION

- The protection function of the AV system may be triggered under high temperature conditions to dim the brightness of the display. The brightness can be restored after the temperature of the vehicle is lowered. This is a normal phenomenon.

Time setting

- Set the time through “Settings → System settings → Basic Settings → Time and Date”.

Drop-down menu bar



In any other interface, swipe down from the top of the screen (drop-down menu bar) to show the drop-down menu. Click on or swipe up to hide the drop-down menu bar. In the drop-down menu bar interface, if there is no operation, the drop-down menu will be automatically hid after a period of time.

Click the function buttons in the drop-down menu bar to turn on/off the corresponding functions, or enter the corresponding function interfaces.

My car

After the AV system works normally, click on car model in smart scene in the main interface or the “My Car” soft key in the application menu interface to enter the My Car interface.

This interface allows adjustment of “Opening/closing control (sunshade, windows)”, “Cabin* (Seat ventilation adjustment, exterior rearview mirror adjustment)”, “Lighting effect* (ambient light)”.

CarPlay

The CarPlay allows you to use navigation, make calls, send and receive messages, and enjoy music while focusing on driving.

Method 1:

- Use a USB cable to connect the phone and the USB port of the main unit. After successful connection, the system will automatically switch to the CarPlay main interface, and the Apple CarPlay icon in the system interface will be highlighted.
- In other function interfaces, you can access the CarPlay in-car system by clicking on the Apple Carplay icon in the application menu.

Method 2:

- With the Bluetooth function of the phone activated, search for the phone name in the Bluetooth connection interface of the AVNT, and click the phone name. After successful connection, select CarPlay in the selection box interface for wireless connection.

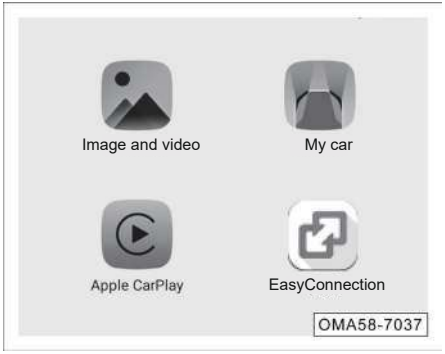
Operations for returning to AVNT system:

- Click on “GAC” icon in the CarPlay application menu interface to return to the AVNT system interface.
- Click on “Apple CarPlay” icon in the AV system application menu interface to access CarPlay system again.

NOTE

- For the functions and applications supported by CarPlay, refer to the Apple's official website. According to the information released by Apple in 2019, Apple CarPlay supports iPhone5 and above.
- When using CarPlay, make sure that the CarPlay function is enabled via "Settings → General → Access Restriction" on the iPhone, otherwise the iPhone will only be used as an iPod and the Apple CarPlay will not be available.
- Please use the genuine iPhone data cable, otherwise connection failure may occur.

EasyConnection*



EasyConnection allows you to use navigation, make calls, enjoy music and achieve MirrorLink while focusing on driving. If EasyConnection APP is not installed on the phone, search for EasyConnection APP in the app store of the phone or scan the QR code on the AVNT for downloading.

Method 1:

- For an Android phone supporting EasyConnection function, connect the phone to the USB port of the main unit via a data cable, and click on the EasyConnection icon on the AVNT for automatic connection of EasyConnection.

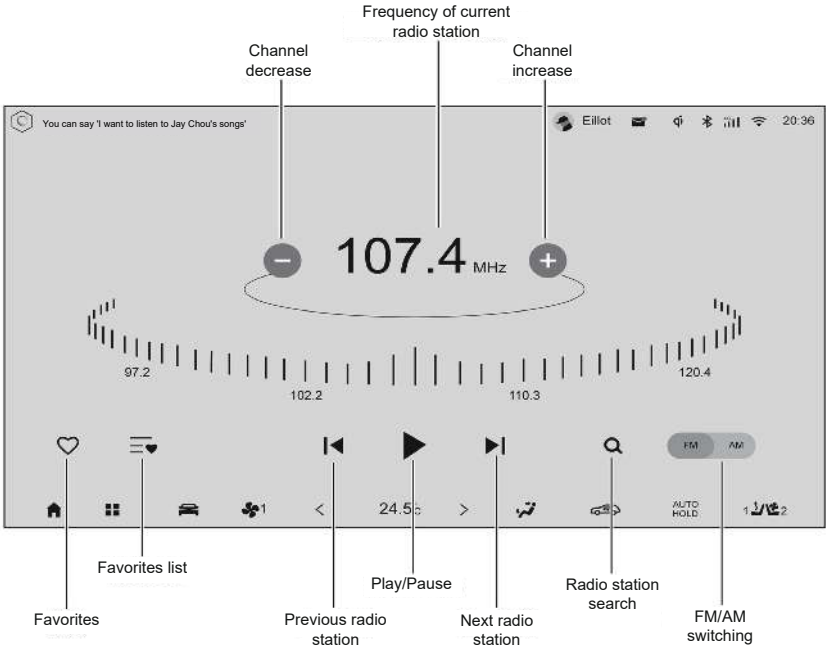
Method 2:

- Click on the EasyConnection icon to enter the connection interface, and scan the QR code with the phone for wireless connection.

Return to the AVNT system operation

- Click on the icon in the EasyConnection system interface to return to the AVNT system.
- Click on "EasyConnection" icon in the AV system application menu interface to access EasyConnection system again.

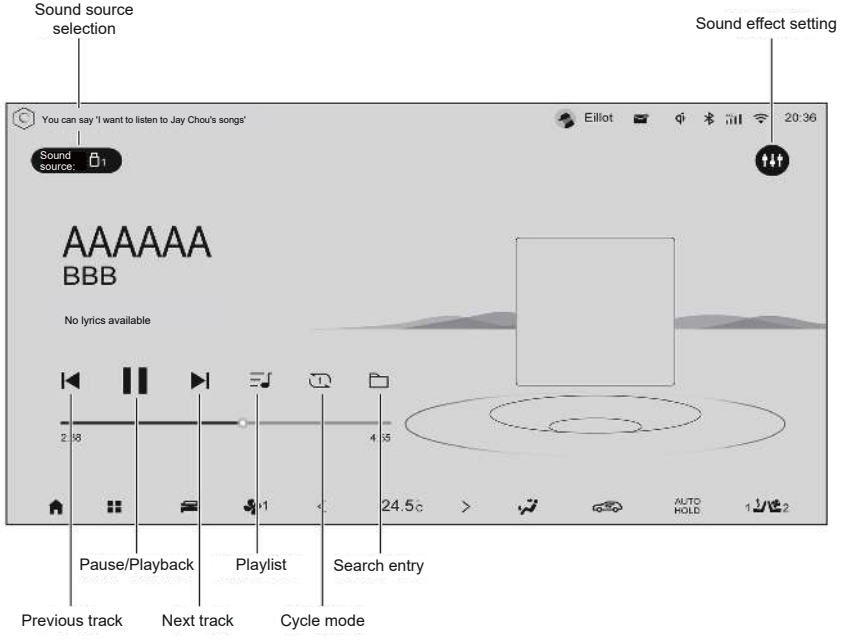
5.7.3 Radio



Enter the radio interface in the following ways:

- Enter the radio interface by clicking on the “Radio” card in the main interface.
- Press the sound source switching button on the right side of the steering wheel repeatedly to switch to the Radio interface.
- Click the “Radio Station” soft key in the application menu interface to enter the radio interface.

5.7.4 Local music



Enter the local music playback interface in the following ways:

- Enter the local music interface by clicking on the “Meida” card in the main interface.
- Press the sound source switching button on the right side of the steering wheel repeatedly to switch to the local music interface.
- Click the “Local Music” soft key in the application menu interface to enter the local music interface.

NOTE

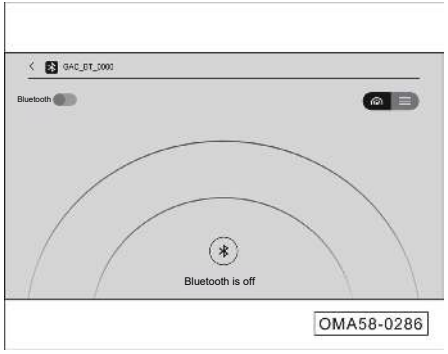
- The AV system only supports the use of USB devices in FAT16/32, exFAT, and NTFS formats, and supports lossless music.

5.7.5 Bluetooth function

Bluetooth mode

Enter the Bluetooth mode in the following ways:

- Click the “Phone” soft key in the application menu interface to enter the Bluetooth mode.
- Click on the “Bluetooth call” card in the main interface in the card mode to enter the Bluetooth mode.
- Click the status bar icon in the upper right corner of the AV system interface to enter the Bluetooth mode.
- Press the button on the right side of the steering wheel to enter the Bluetooth mode.



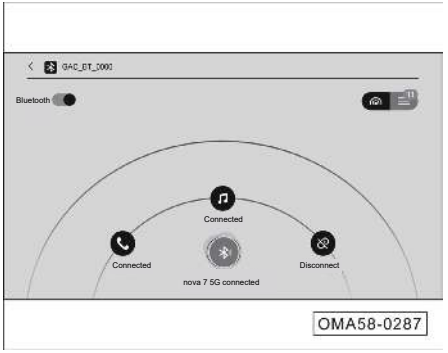
- If there is no Bluetooth device connected, enter the Bluetooth connection interface in the above way.
- After turning on the Bluetooth function by clicking the “Bluetooth ON/OFF” soft key , the AVNT will automatically search for nearby Bluetooth devices. The bluetooth connection interface has two display modes “radar” and “list”.

Radar display mode

- Bluetooth device: The names of nearby Bluetooth devices that can be connected will be displayed, and select the device to be connected and click to connect it.
- Switch to list display mode: Click the soft key to switch to the list mode, the number displayed in the list mode is the number of Bluetooth devices that can be connected around.

List display mode

- Bluetooth device: Bluetooth devices that can be connected around will be displayed in a list.
- Switch to radar display mode: Click the soft key to switch to the radar display mode, the number of Bluetooth devices that can be connected around will be displayed.



After the Bluetooth connection, the status bar icon will be highlighted, and the connected Bluetooth device name will be displayed on the Bluetooth connection interface:

- Click the soft key to synchronize phone numbers, contacts and other information.
- Click the soft key to synchronize the song name information of Bluetooth music.
- Click the soft key to disconnect the Bluetooth.

Bluetooth connection failure

Possible cause	Action
The device's Bluetooth function is set incorrectly	Set the device's Bluetooth so that it can be "Visible to Everyone" or can be searched or opened for detection
The current device is not compatible with the in-car Bluetooth system	Confirm the compatibility of the device with the Bluetooth version, update the operating system of the mobile phone to the latest version and try again
The mobile phone's Bluetooth was connected to other devices	It is recommended to delete the Bluetooth devices that were connected

5.7.6 Smart Bluetooth child safety seat*

Connect bluetooth seat

Fasten the Bluetooth seat belt, turn on the Bluetooth in the Bluetooth setting interface, and check the available Bluetooth devices. The Bluetooth device “Welldon_xxxxxx” is displayed.

- Click on the Bluetooth device “Welldon_xxxxxx” to connect it. After the connection is successful, “Connected” will be displayed.
- Click “Disconnect” to disconnect the Bluetooth child seat.
- Click “Ignore the device”, so the confirmation window for ignoring the Bluetooth device pops up. Click “Cancel” to keep the Bluetooth device connected. Click “Confirm” to disconnect the Bluetooth device, so the Bluetooth device “Welldon_xxxxxx” is removed from the list.

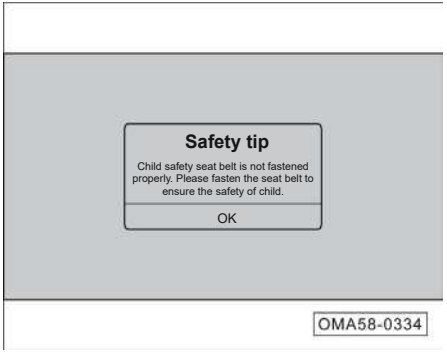
When the child leaves the seat for a period of time, Bluetooth will go to sleep. Wake up Bluetooth again as follows:

- Trigger the seat cushion switch manually.
- Restart the device.

i NOTE

- The communication function of the smart Bluetooth child safety seat is only suitable for Welldon Zhixuan - customized model for GAC.
- When the Bluetooth device “Welldon_xxxxx” is connected successfully for the first time, the system will connect automatically the next time it needs to be used.

Bluetooth seat alarm



During the normal use of the Bluetooth seat, if the seat belt is loose, an alarm message reading “The child seat belt is not fastened properly. Please fasten the seat belt to ensure the safety of children.” will pop up in the AV system interface and always exists. After the seat belt is fastened, the pop-up alarm window disappears.

5.7.7 Settings

Enter the system settings interface by pressing the soft key “Settings” in the application menu. In the settings interface, click on an option to select it, click on the slider to enable/disable the function, and drag the progress bar for adjustment.

Settings group	Function	Function	Options
Device connection	Bluetooth	Device name	/
		Bluetooth switch	On/Off
		Auto connection	On/Off
		Automatically Sync Contacts	On/Off
		List of paired devices	/
		Connectable devices	/
	Apple CarPlay device	Add a device	/
ADiGO intelligent driving	ADiGO active safety assistance	Safe speed warning (km/h)	Range: Off ~ 200
		FCW	On/Off (far/medium/near)
		AEB	On/Off
		LKA	ON/OFF (Steering/WARNING/Steering and WARNING)
		TSR	On/Off
		ISLACC	On/Off
		BSD *	On/Off
		DOW*	On/Off
		Display of longitudinal distance from vehicle ahead	On/Off
		Intelligent avoidance	On/Off
		Rear approach alert system *	On/Off
		Rear crossing traffic alert *	Warning/warning and braking

Settings group	Function	Function	Options
Chassis and powertrain	Chassis and powertrain	Current driving mode memory	On/Off
		Comfortable parking	On/Off
Body accessories	Exterior light	Intelligent high beam	On/Off
		Follow Me Home	On/Off
	Door window lock	Remote unlock	All doors/driver's door only
		Automatic unlocking after shutdown	On/Off
		Intelligent active unlock	On/Off
		Intelligent active locking	On/Off
		Vehicle speed lock	On/Off
		Easy open of liftgate*	Off/On without honk/On with honk
		Locking-sensitive window closing*	On/Off
		Electric flush-fit door handle	On/Off
	Exterior rearview mirror	Auto folding of exterior rearview mirror*	On/Off
	A/C	Automatic air volume setting	Low air volume*/ Medium air volume*/ High air volume
		Intelligent control of recirculation/fresh air mode*	On/Off
	Other Accessories	Automatic wiper	On/Off
		Wiper maintenance mode	Wiper maintenance mode
		Mobile phone wireless charging *	On/Off
		Automatic lifting of storage box *	On/Off

Settings group	Function	Function	Options
Screen settings	W-HUD*	HUD	On/Off
		Brightness control	Range: 1~20
		Height adjustment	Range: 1~20
		Inclination adjustment	Range: 1~20
		DISPLAY PATTERN	Standard mode/Snow mode
	Center console	Center console display brightness	Range: 0~100
		A/C interface hold time	5 s/10 s/15 s/30 s
		Desktop wallpaper	Select a new wallpaper
	IP	Instrument panel brightness	Range: 1~8

Settings group	Function	Function	Options
Sound effect settings	System sound effect	Media volume	Range: 0~39
		Call volume	Range: 0~10
		DTS sound effect	On/Off
		DTS sound effect mode [1)]	Natural soundtrack/clear voice/subbass/leisure mode
		Best listening position	Driver/All occupants mode
		Equalizer mode [2)]	Classic/Pop/Jazz/Rock/Custom
		Treble	–10~10
		Alto	–10~10
		Bass	–10~10
		Sound field	Reset
		Speed-sensitive volume control	On/Off
		Startup volume	Unchanged/Adaptive
		Driving assist chime and media sound	Unchanged/Reduced/Mute
		Unlock/lock prompt sound	On/Off
	Interactive sound effect	Touch tone	Off/Modern/Retro
		Interface sound effect	On/Off

Settings group	Function	Function	Options
System settings	Basis Settings	Time and date	Setting
		24-hour system	On/Off
		Language setting	Chinese/English/Arabic/Indonesian/Spanish
	System Information	System version	/
		Memory size	/
		Factory reset	Reset

Note: 1) It can be selected when “ON” is selected for DTS sound effect setting.

2) It can be selected when “Off” is selected for DTS sound effect setting.

5.8 Emergency rescue*

Emergency rescue functions include automatic call after crash, manual emergency call. Automatic call after crash will be automatically enabled by GAC Motor T-BOX under certain circumstances, while manual emergency call needs to be manually enabled by pressing the SOS button.

Both automatic call after crash and manual emergency call functions can call emergency contact.

- Automatic call after crash: when the vehicle is involved in an accidental collision and the airbag is deployed, GAC Motor T-BOX will activate the automatic call after crash function to automatically call the set phone number of the emergency contact.
- Manual emergency call: when the automatic call after crash function does not work, you can also manually press the emergency call button to start the manual emergency call function, and then call the phone number of the emergency contact.

Emergency call button

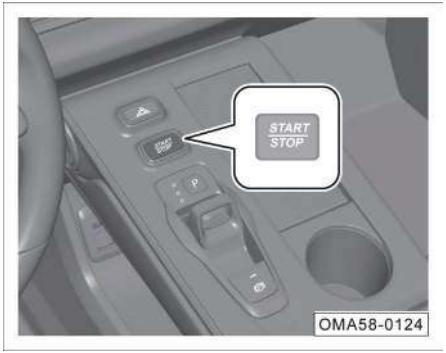
- SOS button ①: Press and hold this button for 3 s to allow the GAC Motor T-BOX to activate the manual emergency call function to call the emergency contact.

i NOTE

- Please use the emergency call button only when necessary.
- The emergency contact number is that you designated when you purchase the vehicle.

6.1 Starting and drivings

6.1.1 START/STOP button

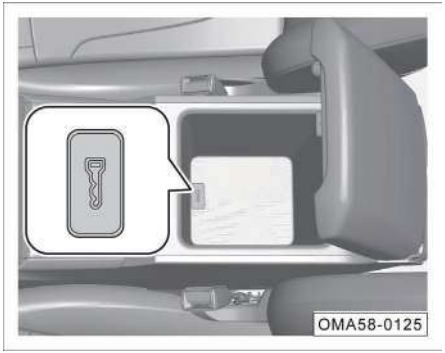


The START/STOP button works only when the intelligent remote control key is detected in the vehicle.

When the transmission gearshift lever is in “P” position and the brake pedal is depressed, press the START/STOP button to start the vehicle.

When the transmission gearshift lever is set to “P” position and the brake pedal is not depressed, press the START/STOP button to switch the positions in the following order: “OFF → ACC → ON → OFF”.

Limphome mode



When “No key detected” appears on the instrument cluster display due to low battery of the intelligent remote control key, you can try to place the key flatly at the key sign at the bottom of the front central armrest box, and then press the START/STOP button to switch it to “ACC” or “ON” position; or you can depress the brake pedal and press the START/STOP button to start the vehicle.

This method is intended for emergency start. Please replace the battery of the intelligent remote control key as soon as possible.

6.1.2 Vehicle start

- Enter the vehicle with the intelligent remote control key.
- Make sure the gearshift lever is in “P” position.
- Depress the brake pedal.
- Press the START/STOP button to start the vehicle.

NOTE

- If the traction battery level is low, the system will automatically start the engine during vehicle start.
- In case of a cold start, run the engine at idle speed to warm up it before driving. At the same time, the valve tappet takes a few seconds to reach the normal working pressure and operation noise will occur, which is normal.

CAUTION

- The engine start time shall not exceed 15 s. If the engine is not started successfully, you must wait about 30 s before next attempt.
- Do not depress the accelerator pedal hard to make the engine run at high speed or overload after starting. Otherwise, the engine is likely to be damaged.
- If the battery level is low and the vehicle cannot be started, try to start it by a jumper cable. => See page 281
- It is prohibited to start the vehicle by pushing or towing it.

WARNING

- **Do not keep starting the vehicle for a long time in a poorly ventilated place or an enclosed place. The engine exhaust contains harmful gases which can make people comatose and even suffocate.**
- **Never let the engine idle unattended.**
- **Do not add a starting aid for starting the engine, as it is likely to make the engine run at high speed or cause an explosion.**

6.1.3 Vehicle shutdown

- Park the vehicle steadily and apply the parking brake.
- Set the gearshift lever to the “P” position.
- Release the brake pedal, and press the START/STOP button to shut down the vehicle.

i NOTE

After the vehicle is shut down, the radiator fan may still run for a while.

Emergency power-off

When the vehicle is running, press and hold the START/STOP button or quickly press it three times to switch it from “ON” to “ACC” position to shut down the vehicle for emergency power-off.

The vehicle can only be restarted in a few seconds after emergency shutdown. Restart the vehicle as follows:

- After setting the gearshift lever to “P” or “N”, press the START/STOP button to start the vehicle.

⚠ WARNING

Emergency power-off is forbidden during normal driving, as it is likely to lead to vehicle damage, safety and power steering failure, and traffic accidents.

Precautions for parking

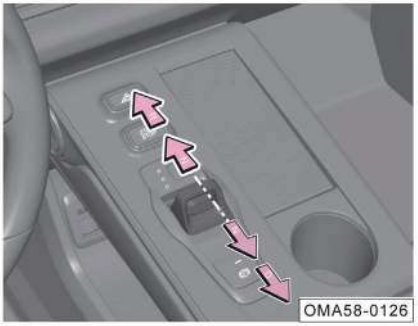
When parking, set the gearshift lever to “P” position, and pay attention to the following:

- Pay attention to the direction in which the vehicle is parked, for fear of damage to the green belt with the exhaust gas spraying on the plants.
- Try to park on a flat and straight road, instead of a steep slope.
- When parking on a slope, regardless of whether the vehicle is facing the top or bottom of the slope, the front wheels should be turned towards the curb.
- Apply the parking brake, shut down the vehicle, and turn off all lamps and electrical consumers.
- Before leaving the vehicle, be sure to carry valuables and the key with you, and check that the windows, doors, and liftgate are closed or locked.

⚠ WARNING

- **When leaving the vehicle, be sure to shut down the vehicle, apply the parking brake and take away the key.**
- **Do not leave any person in the vehicle. Otherwise, suffocation, coma and even death can easily occur in the closed space.**
- **Do not park the vehicle near the flammables or explosives.**

6.1.4 Gear description



The gearshift lever has “P, R, N, D” positions. When the START/STOP button is in “ON” position and the gearshift lever is set to a position, the corresponding gear information will be displayed on the instrument cluster.

- Push the gearshift lever forward to shift from “D” position to “R” position. In this process, there are two resistance points. The first resistance point indicates “N” position, and the second resistance point indicates “R” position.
- Push the gearshift lever backward to shift from “R” to “D”. In this process, there are two resistance points. The first resistance point indicates “N” position, and the second resistance point indicates “D” position.

⚠ WARNING

The “R” or “P” gear can be engaged only when the vehicle is completely stationary, otherwise the transmission will be damaged.

P: Parking position

- This position is to be engaged after the vehicle has stopped completely for the purpose of parking.
- For long-time parking, please depress the brake pedal, shift the gearshift lever into “N”, pull up the “EPB” button, release the brake pedal, and then press the “P” button.

NOTE

- Please note that the instrument panel will display the current gear position.
- Before the vehicle is started, the gearshift lever cannot be moved to “D” or “R”.
- When the shift system fails and the “P” position can not be disengaged, please contact the GAC Motor authorized shop for inspection and repair.

R: Reverse

- This position is to be engaged for reversing.
- When the vehicle is completely stationary and the gearshift lever is in “P” or “N” or “D” position, depress the brake pedal, and push the gearshift lever forward to shift to “R” position.

N: Neutral

- This position is to be engaged for temporary parking.
- When “P” gear is engaged, depress the brake pedal and push the gearshift lever forward to the first resistance point to engage “N” gear.
- With the transmission in “D” position, step on the brake pedal and push the gearshift lever forward to the first resistance point position to shift to “N” position.
- With the transmission in “R” position,, step on the brake pedal and push the gearshift lever backward to the first resistance point position to shift to “N” position.

WARNING

Do not make the vehicle coast with the gearshift lever in “N” position. Otherwise, it is likely to cause an accident.

D: Drive

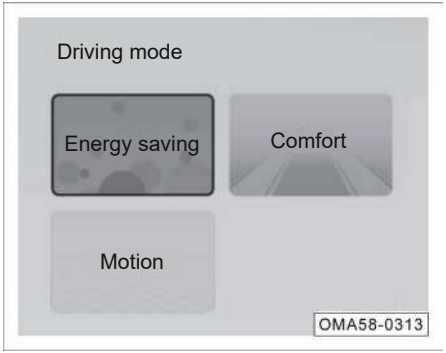
- This position is to be engaged for normal driving.
- Depress the brake pedal, and pull the gearshift lever backward to shift from “P”, “N” or “R” position to “D” position.

Driving mode

It is possible to switch driving modes via the AV system:

- ECO: In this mode, the slight power hysteresis occurs and fuel consumption is more economical.
- COMFORT: In this mode, the dynamic response and fuel consumption are more balanced.
- SPORT (sport) mode: In this mode, the dynamic response is rapid and the fuel consumption is high.

Driving mode selection

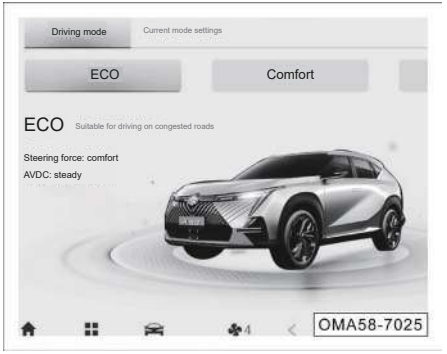


1. Set the START/STOP button to “ON” position, and view the current driving mode or select the corresponding driving mode through the driving control panel button on the bottom toolbar of the AV system.

NOTE

Click the back button on the AV system interface or stay for 5s without any operation to hide the mode pop-up window.

2. Set the START/STOP button to “ON” position, and switch the driving modes through the smart scene area in the main interface of the AV system.



3. Set the START/STOP button to “ON” position, and switch the driving mode through the “Driving Mode” button in the application menu of the AV system.

- Set the current driving mode parameters through the application menu of the A/V system “Driving Mode → Current Driving Mode Setting”.

NOTE

- For each driving mode, there is a reset button to restore the factory setting of the mode with one button.
- If you want to memorize the current driving mode, you need to enable the memory through the AV system “Settings → Chassis and Powertrain → Current Driving Mode Memory”, and the current driving mode will be defaulted to the next time you start the vehicle.

6.2 Brake system

6.2.1 Service brake

Under certain driving and weather conditions, squeaks, screams, or other noises may be heard from brakes when the brake pedal is depressed for the first time or lightly stepped on, or braking noise during light or moderate braking, especially for new vehicles (as their brakes have not undergone running-in), which is normal, and does not constitute a failure symptom of brake system nor has effects on the braking safety and performance.

CAUTION

- If there is metal friction rasp, the brake lining may be worn to the limit. Please go to the GAC Motor authorized shop for inspection as soon as possible.
- If the steering wheel vibrates or twitches continuously during braking, go to the GAC Motor authorized shop for inspection and repair as soon as possible.

NOTE

- Do not rest your foot on the brake pedal during driving, otherwise the brakes will heat up to an abnormally high temperature, and the brake linings and brake discs will wear excessively, increasing the braking distance.
- Continuous application of the brake will cause brake overheat and result in a temporary loss of braking performance.
- Under normal driving conditions, brake linings will wear, and dust will accumulate on wheels, which is inevitable but yet has no effect on the braking performance.
- If rust and corrosion exist because the brake linings and brake discs are not used or used rarely, noise may be heard from brakes for the first use. This is normal. It is recommended that braking be carried out several times in a safe area and under good road conditions to clean the brake linings and discs.

Brake booster

The brake booster is used to increase the pressure applied by the driver on the brake pedal, and it only works when the engine is running.

If the brake booster does not work properly due to a fault, or when the vehicle is towed, the force on the brake pedal must be increased to compensate for the assist power loss of the brake booster.

WARNING

- **Never make the vehicle coast with the vehicle shut down, because at this moment, the brake booster does not work, the braking distance will be greatly increased, and an accident is likely to be caused.**
- **If the brake booster does not work (for example, when the vehicle is being towed), please depress the brake pedal with force much greater than that applied under normal condition.**

Braking effect and braking distance

The braking effect and braking distance mainly depend on the driving environment, road conditions and driving style,

Worn brake linings do not provide effective braking. The wear rate of brake linings mainly depends on the vehicle operation conditions and driving style. If the vehicle often runs for urban driving, short-distance driving, or as a racing vehicle, it is recommended that the driver checks the brake lining thickness more frequently based on the maintenance cycle specified in the *Warranty and Maintenance Manual*.

After wading, heavy rain or vehicle washing, brake linings may get wet or icy (in winter), resulting in a reduction in braking effect. In this case, be sure to depress the brake pedal lightly to heat the brake by friction and evaporate the moisture to restore the braking effect.

⚠ WARNING

A new tire and brake lining having not undergone running-in do not have the best adhesion and friction characteristics.

- **The new tires do not have the best adhesion, so you must drive carefully within the first 500 km to prevent accidents!**
- **New brake linings in the first 200km to 300km driving distance do not get the best friction characteristics, and braking effects are not as good as expected, so new brake linings must be subject to running-in. Braking effects can be compensated by increasing the force applied to the brake pedal. New brake linings must also be subject to running-in.**
- **During driving, do not get too close to other vehicles or bring the vehicle to a situation where emergency braking is necessary. Take care especially when driving with a new tire and new brake lining having not undergone running-in, for fear of accidents!**

⚠ WARNING

When the brake is wet or icy or when the vehicle is running on a salted road, the braking lag may occur, resulting in a longer braking distance. Therefore, be careful to prevent accidents.

- **A longer braking distance or a fault in the braking system will increase the accident rate.**
- **Lightly depress the brake pedal to check the brake.**
- **Lightly depress the brake pedal to dry brakes or remove ice or anti-skid salt from brakes.**

⚠ WARNING

When brakes are overheated, braking effects will reduce, increasing the braking distance!

- **Take care to avoid overheating brakes.**
- **When driving downhill, brakes are likely to be overheated as the brake load increases.**
- **It is recommended to reduce the vehicle speed before driving down along a long steep slope and make full use of the engine braking, so as to reduce the brake load.**
- **Do not keep depressing the brake pedal. Otherwise, brakes will overheat and the braking distance will increase. Brake the vehicle intermittently according to road and traffic conditions.**

⚠ WARNING

- **The brake fluid must be changed every two years. If the brake fluid stays in the brake system for a long period, air resistance may occur in the pipeline during braking, reducing the braking effect significantly and impairing driving safety, and even causing failure of the brake system, resulting in an accident thereby!**
- **If the front spoiler is out of standard or damaged, it will block the cooling airflow to brakes, causing brakes to overheat and reducing the braking effect.**

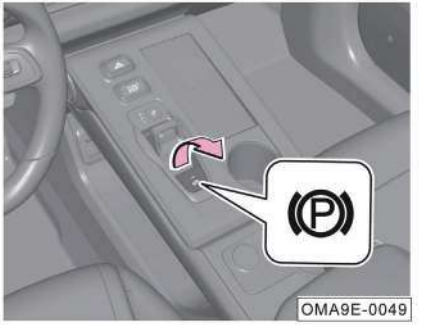
6.2.2 Electric park brake (EPB)

The driver can apply or release the parking brake by operating the EPB button. HSA can be applied for driving on a slope. When the accelerator pedal is depressed with the vehicle parked, the EPB will be automatically released to provide driving assistance for the driver.

i NOTE

- EPB will choose different application force strategies on different slopes. EPB can realize parking on a slope with a maximum gradient of 30%. If parking on a slope with a gradient greater than 30%, there will be a risk of slipping, and the EPB will be applied again, which is normal.
- If the vehicle continues to slide down after the EPB is applied to park the vehicle on a slope below 30% and then applied again against slipping of the vehicle, please depress the brake pedal and drive the vehicle to a flat road. It is recommended to go to the GAC Motor authorized shop for inspection and repair in time.

Application of static park brake



- When the vehicle is stationary, pull up the EPB button or press the P button as arrowed. The button indicator lamp and the indicator lamp (Ⓟ) on the instrument cluster will come on, indicating that the EPB has been applied.
- When the gearshift lever is moved to the “P” position from other positions, the EPB will be applied automatically.

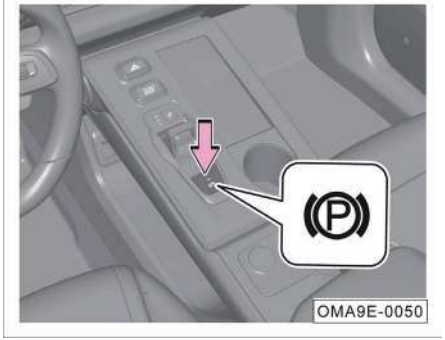
NOTE

- The EPB can also be applied when the ENGINE START/STOP button is in the “OFF” position.
- After the vehicle is parked steadily, the EPB should be applied first.
- When EPB is applied, running noise will be generated, which is normal.
- If there is a trailer or the vehicle is parked on a large slope (more than 30%), if the vehicle still slides after the EPB is applied again, please step on the brake pedal to brake and drive the vehicle to a flat road and stop stably.
- After the EPB is applied, it can ensure that the vehicle does not slide on a slope with a gradient of 30% within 5min. If sliding occurs during this duration, the EPB will be applied again.
- Be sure to apply the EPB during parking.

WARNING

When the vehicle is running, do not apply the EPB for speed reduction unless necessary, as the EPB only applies braking force to rear wheels, which is likely to cause traffic accidents.

Release static park brake

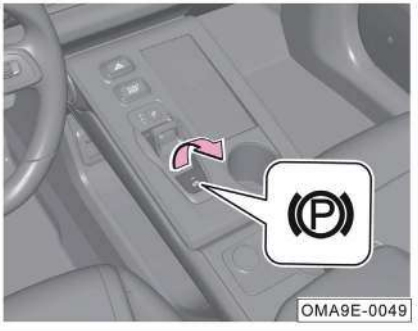


- With the START/STOP button set to “ON” position and the gearshift level not in P position, depress the brake pedal, and press the EPB button. The button indicator lamp and the indicator lamp Ⓟ on the instrument cluster will go out, indicating that the EPB has been released.
- With the START/STOP button set to “ON” position, when the doors are closed, the seat belt is fastened, the gearshift lever is in D or R position, and the accelerator pedal is depressed, the EPB will be released automatically, and the EPB indicator lamp Ⓟ on the instrument cluster will go out, indicating that the EPB has been released.
- With the START/STOP button set to “ON” position, when the doors are closed, the seat belt is fastened, and the gearshift lever is moved out of P position, the EPB will be released automatically, and the EPB indicator lamp Ⓟ on the instrument cluster will go out, indicating that the EPB has been released.

NOTE

- If the EPB button is pressed without depressing the brake pedal, the EPB will not be released, and the instrument cluster will display an alarm message accompanied by a buzzer alarm.
- When the EPB is released, running noise will be generated, which is normal.
- When the battery is low, the system cannot release the EPB. If conditions permit, you can connect a jumper cable for emergency start, and then release the EPB. Contact the GAC Motor authorized shop for inspection and repair.
- If the EPB has not been used for a long time, the system will perform automatic test, and operation noise will be heard at this time.
- Press and hold the EPB button and press the ENGINE START/STOP button at the same time to turn off the power of the whole vehicle to realize towing with power “OFF”.

Application of dynamic emergency braking



- If the service brake fails during driving, pull up the EPB button constantly, and then release the EPB button or depress the accelerator pedal so that the system exits emergency braking.

NOTE

- When the vehicle is running, if the EPB system button is pulled up, the instrument cluster display will give an alarm message, together with a beep alarm.
- When the vehicle is slowing down, release the EPB button or depress the accelerator pedal to release the parking brake again. If the EPB button is continuously pulled up until the vehicle stops, the parking brake will remain engaged.

CAUTION

Do not use dynamic emergency braking unless necessary, as it is likely to cause traffic accidents. Moreover, the braking distance is longer than braking by depressing the brake pedal, and the service life of the parking brake system will be shortened.

CAUTION

In the following cases, operate the EPB button again. If the fault is not eliminated, please go to the GAC Motor authorized shop for inspection.

- If the indicator lamp (Ⓟ) flashes red continuously, it indicates that the EPB is partially engaged/disengaged or the system is malfunctioning.
- If the indicator lamp (Ⓟ) comes on in red when EPB is not applied, it indicates that the system is abnormal.
- If the indicator lamp (Ⓟ) comes on in yellow, it indicates that a fault is detected in EPB and the EPB is degraded.

AUTO HOLD

Activation and deactivation

- When the vehicle is started, the driver's door is closed and the driver's seat belt is fastened, click AUTO HOLD soft key ① on the toolbar at the bottom of the AV system interface. Then the button indicator lamp comes on, and the AUTO HOLD is enabled.Click the soft key again, so that the indicator lamp goes out and the auto hold function is turned off.

Activation

When this function is enabled, it supports automatic brake application and release under stop & go conditions. When the driver brakes the vehicle, the vehicle will be automatically parked to avoid slide at startup.

Exit

Under the following conditions, AUTO HOLD will be disabled and the parking brake will not be locked:

1. The accelerator pedal is depressed at startup.
2. The START/STOP button is set to "OFF" position during driving.
3. The EPB is manually released.
4. The AUTO HOLD button is pressed when the brake pedal is depressed.

For the sake of safety, the AUTO HOLD will be disabled and the parking brake will be locked under one or more of the following conditions:

1. The START/STOP button is set to “OFF” position.
2. The driver’s door is opened or the seat belt is unfastened when the vehicle is stopped.
3. The AUTO HOLD button is pressed to disable AUTO HOLD.

CAUTION

When driving into a mechanism such as a vehicle washing device that transports the vehicle with a conveyor belt, be sure to disable the AUTO HOLD, otherwise the vehicle cannot move or may run off the path.

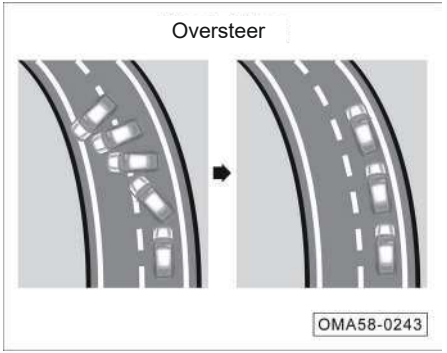
6.3 Electronic service brake system

6.3.1 Electronic stability program (ESP)

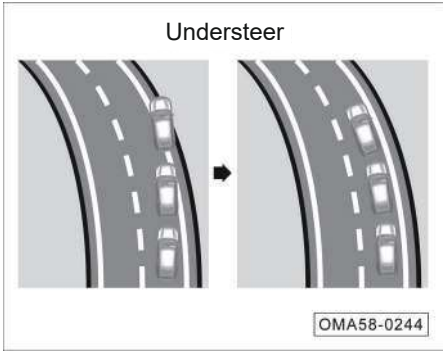
ESP can effectively reduce the risk of sideslip.

ESP determines the driving intention of the driver according to the steering wheel angle and the vehicle speed, and compares it with the actual driving condition of the vehicle continuously. If the vehicle deviates from the normal driving route (such as sideslip), ESP will correct it by applying brake force to the corresponding wheels.

ESP returns the vehicle to a stable driving state through the torsional force generated by braking.



- When the vehicle tends to oversteer (i.e., drift), the system will apply braking force mainly to the front wheel on the outer side of the curve.



- When the vehicle tends to understeer (i.e, excessive turning radius), the system will apply braking force mainly to the rear wheel on the inner side of the curve.
- A vehicle without ESP deviates from the normal driving route due to sideslip. A vehicle with ESP can correct the braking force according to sideslip, to prevent deviation from the route.

Activation and deactivation

ESP is on by default when the vehicle is running. Access the AV system interface, click the driving control panel button on the bottom toolbar to enter the driving control panel interface. If the “ESP” soft key is clicked, the ESP will be deactivated (only TCS is deactivated), the indicator lamp on the instrument cluster will come on and an alarm message will be displayed.

Since the ESP works only when the vehicle is running, the ESP shall be activated for driving safety. The ESP can be disabled in the following special cases:

- When the vehicle runs with tire chains.
- When the vehicle travels on roads covered with deep snow or on soft grounds.
- When the vehicle is trapped on muddy roads, etc., and you need to move it back and forth.

CAUTION

Improper operation or modifications (such as modifications to the brake system, wheels, tires and other components) of the vehicle will affect the function of ESP.

⚠ WARNING

- **Be sure to adjust the vehicle speed according to weather, road and traffic conditions at any time. Never risk driving merely by virtue of the additional safety functions provided by the systems.**
- **ESP cannot overcome the physical limit of road adhesion; be careful while driving the vehicle on a wet and slippery road or with a trailer coupled.**
- **The driver must adjust the driving style at any time according to the road and traffic conditions.**
- **ESP cannot reduce the risk of accidents caused by improperly driving such as driving at a high speed or driving too close to the vehicle in front.**

Traction Control System (TCS)

TCS refers to traction control system. It determines whether the driving wheel slips based on the speed of the driving wheel and the drive wheel, and if the former exceeds the latter, it will limit the speed of the driving wheel. When the vehicle brakes on a smooth road, the wheels will slip, even making the direction out of control. Likewise, when the vehicle starts or accelerates rapidly, the driving wheel may also slip, and the direction may be out of control on a smooth road covered with ice, snow, etc. The function of the traction control system is to automatically control the propulsion power during acceleration, so as to keep the sliding amount of the tire within a reasonable range, so as to maintain the stability of the vehicle.

6.3.2 Anti-lock braking system (ABS)

Anti-lock brake system (ABS) is a active safety device. When the vehicle is braking, if the front wheels are locked, the vehicle will be unable to make a turn. In this case, steering maneuvers necessary for the driver to avoid obstacles and pedestrians during braking and for driving on curves cannot be achieved. If the rear wheels are locked, the braking stability of the vehicle will be deteriorated, and the vehicle will drift or even turn around under the influence of small lateral force (such as lateral wind force). In addition, when the wheels are locked, local severe friction of tire will significantly shorten the tire life.

For ABS installed on the vehicle, an electronic control unit is added to the original brake system of the vehicle. Its function is to automatically adjust the wheel braking force and prevent the wheels from being locked during braking, so as to obtain the best braking performance and greatly improve the driving safety.

Advantages of ABS

- Give full play to the effectiveness of brakes and shorten the stopping time and distance.
- Effectively prevent the vehicle from sideslip and drift during emergency braking, delivering good driving stability.
- Achieve steering during emergency braking, delivering good steering control.
- Avoid severe friction between tires and the ground, reducing the wear of tires.
- ABS is composed of anti-lock electronic control system and ordinary brake system. The anti-lock electronic control system consists of the sensor, the control unit and the actuator.

Self-diagnosis of ABS

- The ABS ECU has self-diagnosis and fail-safe protection functions. When the START/STOP button is set to “ON” position, ABS performs self-test. If ABS does not run normally, the ABS indicator lamp (ABS) will stay on. In this case, stop the ABS, restore normal braking, and go to the GAC Motor authorized shop for inspection as soon as possible.

CAUTION

- Improper operation or modifications (such as modifications to the brake system, wheels, tires and other components) of the vehicle will affect the function of ABS.
- Tires must be of a specified size. Incorrect tire size or inconsistent sizes of all tires will affect the normal working of ABS.

⚠ WARNING

Be sure to adjust the vehicle speed according to weather, road and traffic conditions at any time. Never risk driving merely by virtue of the additional safety functions provided by the systems.

Electronic brake force distribution (EBD)

As a part of ABS, the electronic brake force distribution (EBD) balances the distribution of brake force on the front and rear wheels according to the vehicle load during normal braking.

Hydraulic brake assist (HBA)

HBA assists the driver in emergency braking. It determines whether full braking is required based on the speed at which the driver depresses the brake pedal. As long as the driver depresses the pedal to the floor all the time, the HBA will automatically increase the braking force to the threshold at which the ABS activates. If the driver relaxes the brake pedal, the system will reduce the braking force to the specified value.

⚠ WARNING

HBA is only an assist system for improving the driving safety, but it is subject to the limitation of the laws of kinematics. Therefore, please adjust the driving speed according to the road conditions and traffic regulations.

6.3.3 Hill-start hold control (HHC)

The hill-start hold control (HHC) is an active safety system from software function extension on the basis of ESP, which is mainly used to help the driver to pull away successfully on a steep slope.

When the vehicle is stationary, the HHC detects whether the vehicle is on a slope through the longitudinal acceleration sensor. Subsequently, when the vehicle goes up the slope from the stationary state (through forward traveling or reversing), the HHC will automatically enter the working state. At starting, when the driver releases the service brake pedal, the HHC will maintain the previous brake pressure to ensure that the vehicle still stops and gradually reduce the brake pressure with the increase of driving torque to realize the effect that the vehicle does not slide in the opposite direction without parking braking applied, which greatly improves the vehicle starting on a slope, frequent stops, starting, parking, etc.

At starting on a slope, the HHC prevents the vehicle from sliding backwards in the interval between the driver releasing the brake pedal and depressing the accelerator pedal, thus improving the safety and reliability of the vehicle during starting on a slope.

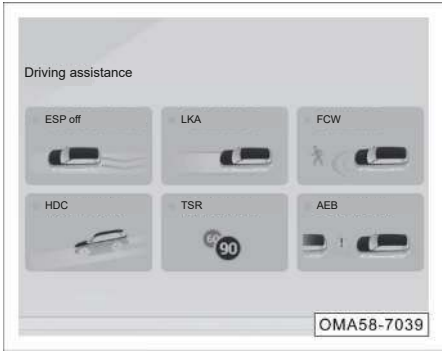
Working conditions

- The gearshift lever is in a position other than “P”.
- The accelerator pedal is not depressed.
- The vehicle is stationary.
- Electric park brake is not applied.
- On the premise that the above basic conditions are met, the HHC is activated when the driver further depresses the brake pedal when the vehicle stops.

6.3.4 Hill descent control (HDC)

The hill descent control (HDC) is a subsystem of the ESP. During the downhill driving, when the driver does not step on the brake pedal, the HDC actively applies the braking force through the ESP to achieve deceleration.

Activation and deactivation



- With the START/STOP button set to “ON” position, access the AV system interface, click the driving control panel button on the bottom toolbar to enter the driving control panel interface, and click the “HDC” soft key to activate the HDC. When the HDC is working, the corresponding indicator lamp will stay on or flash, and a message reading “HDC is working”

will be shown on the instrument cluster display. If the HDC is faulty, the buzzer will sound, and an alarm message reading “Please check HDC” will be shown on the instrument cluster display.

- Press the button again to deactivate the HDC and the indicator lamp goes out.

If the HDC function has been activated, the vehicle runs and maintains at the speed of at least 8 km/h while going downhill.

In addition, the driver can adjust the vehicle speed by depressing the accelerator pedal or the brake pedal. If the vehicle speed is within 8-35 km/h when the pedal is released, HDC will be activated again to keep the vehicle going downhill at the current speed.

- When the vehicle speed is higher than 60 km/h, HDC is automatically deactivated.
- When the HDC is active, ESP automatically intervenes in driving if the wheels slip excessively.

i NOTE

- When the HDC has a fault, the function is deactivated and a graphic prompt is displayed on the instrument cluster display with an audible alarm lasting for about 5 s. In this case, HDC cannot work properly, and the driver should depress the brake pedal for deceleration instead of trying to use the system to go down a steep slope. In addition, the driver should go to the GAC Motor authorized shop for inspection as soon as possible.
- In some special environments, the HDC enters the thermal protection mode due to too high braking temperature. For example, when the system operates at a high ambient temperature for a long time, the temperature of the brake system constantly increases due to friction. When the upper limit of temperature has been reached, the HDC enters the thermal protection mode (i.e., the HDC function is active but inoperative) and is temporarily deactivated, and the vehicle shows signs of acceleration. When the temperature of the brake system drops to the level where the brake system can work effectively, HDC resumes normal operation.

6.3.5 Coordinated regenerative braking system (CRBS)

The coordinated regenerative braking system (CRBS) is a system where the drive motor feedback torque and the hydraulic brake torque together constitute the driver’s required brake torque. When the driver depresses the brake pedal, the drive motor feedback torque and the hydraulic brake torque will coordinate for control to meet the driver’s brake request.

6.4 Driver assistance systems

6.4.1 Adaptive cruise control (ACC)

The adaptive cruise control, abbreviated to ACC, can automatically adjust the distance from the vehicle ahead in the cruise control mode.

ACC detects the relative distance and speed with the vehicle ahead on the same path according to the signals from the MMW radar installed on the front of the vehicle and the IFC installed on the front windshield:

- When there is a lead vehicle and it stops, the ACC will stop the ego vehicle automatically; if the vehicle in front starts, ACC will control the vehicle to start and run automatically again in a short period of time. After stop for a period of time, the vehicle can be started by operating the button or the accelerator pedal as the vehicle ahead is started.
- When the speed of vehicle ahead is lower than the target speed set by the driver, ACC controls your vehicle at a safe distance from the vehicle ahead.
- When no vehicle is in front, ACC controls ego vehicle to travel at the target speed set by the driver.

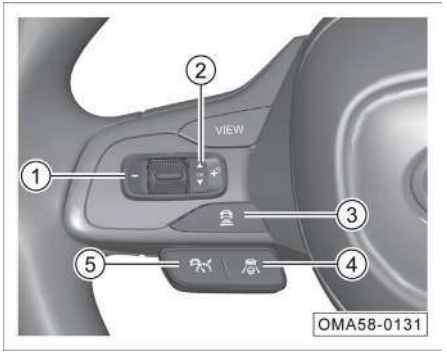
NOTE

Precautions for use of radar and IFC sensors. => See page 197

WARNING

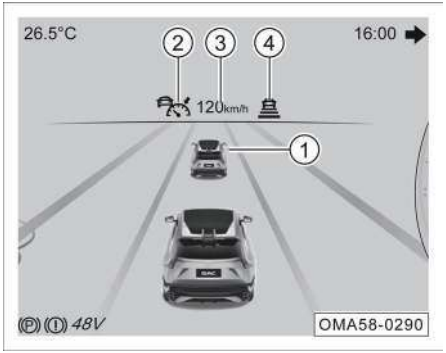
- **The ACC is not a safety system, obstacle detector, collision alarm or collision avoidance system, but a comfort system, so the driver must always keep control of the vehicle and take full responsibility for the vehicle.**
- **ACC must be used cautiously according to the visibility, weather conditions, road and traffic conditions at the time. The driver must always keep control of the vehicle and take full responsibility for the speed of the vehicle and the distance from other vehicles.**
- **ACC cannot substitute for driver's attention and judgment. The driver should always be responsible for ensuring that the vehicle travels safely at an appropriate speed and maintains an appropriate distance from other vehicles.**

Control buttons



① : deceleration
② : resumption / synchronization / acceleration
③ : adjusting the time headway
④ : Turning on/off ICA/Switching to ICA
⑤ : Turning on/off ACC/Switching to ACC

Interface description



① Indicates the detected vehicle ahead.

② ACC indicator lamp:

- If the blue ACC indicator lamp comes on, it indicates that the ACC is working, and there is a target vehicle ahead. If the gray ACC indicator lamp comes on, it indicates that the ACC is in the ready state, and there is a target vehicle ahead.
- If the blue ACC indicator lamp comes on, it indicates that the ACC is working, and there is no target vehicle ahead. If the gray ACC indicator lamp comes on, it indicates that the ACC is in the ready state, and there is no target vehicle ahead.
- If the yellow indicator lamp comes on, it indicates that ACC is faulty. In that case, go to the GAC Motor authorized shop for inspection in time.

③ Indicates the set cruising speed.

④ Set cruise control time interval with the vehicle ahead.

When the ACC braking capacity is insufficient to maintain a proper distance between this vehicle and the vehicle in front, the system will send out the “driver takeover request”, and the instrument cluster will display the alarm information and sound at the same time. At this time, the driver shall step on the brake pedal according to the system requirements to reduce the speed.

Activating ACC

- After the ENGINE START/STOP button is set from the “OFF” position to the “ON” position each time, ACC will automatically enter the ready state. If the button is pressed, the corresponding blue indicator lamp on the instrument cluster will come on, and the vehicle will enter the ACC status.

NOTE

- The minimum setable cruising speed is 15 km/h.
- When the transmission is in other positions than D, ACC cannot be activated.

⚠ WARNING

- **When the vehicle is in "engine running" state and the gearshift lever is in "D" position, press the button on the steering wheel, and the stationary vehicle will automatically enter the driving state after the conditions are met, so be careful.**
- **After the vehicle enters ACC control state from the stationary state, the vehicle speed may increase suddenly. In this case, please ensure the safety around the vehicle to avoid accidents.**

Deactivating ACC

ACC can be deactivated by:

- Opening the driver's door.
- Unfastening the driver's seat belt.
- Depress the brake pedal.
- Setting the gearshift lever to a position other than D.
- Pressing the button (after that, the corresponding indicator lamp on the instrument cluster will turn gray, ACC will be deactivated, but the set speed will be kept).
- Pressing the EPB button.
- Deactivating the ESP.
- Turn on the HDC system.
- When the Autohold function is activated.

If deactivated by the following ways, ACC may be resumed through the button :

- Depressing the brake pedal.
- Setting the gearshift lever to a position other than D.
- Pressing the button .
- Pressing the EPB button (it is required to release EPB).
- Switching off the ESP (it is required to switch on the ESP for resuming the ACC).
- When the Autohold function is activated (exit the Autohold first).

Resuming ACC

When the corresponding gray indicator lamp on the instrument cluster comes on, ACC can be reset by the following ways:

- Pressing the button , after which the corresponding indicator lamp on the instrument cluster will come on in blue, the vehicle speed will return to the value set during the last cruise control, and the cruise control will be resumed.
- If no cruising speed has been set, ACC will set the current vehicle speed as the cruising speed (if the current vehicle speed is less than 15 km/h, the cruising speed will be set at 15 km/h).

Increasing cruising speed

To increase the vehicle speed, please do the following:

- Depress the accelerator pedal to increase the vehicle speed to a target value and press the button (keep the accelerator pedal depressed) for cruising at the increased speed.
- Press the button; each time the button is pressed, the vehicle speed increases by 5 km/h.
- Press and hold the button to increase the vehicle speed at an increment of 5 km/h.

NOTE

- The maximum setable cruising speed is 130 km/h.
- When the accelerator pedal is depressed for acceleration, the vehicle will temporarily deactivate the ACC and accelerate according to the driver's intention. After the accelerator pedal is released, the vehicle will resume the ACC and the set cruising speed.
- When the accelerator pedal is depressed to increase the vehicle speed above 135 km/h, the vehicle will deactivate the ACC on its own. After the vehicle speed is reduced to 130km/h, ACC may be reactivated by pressing or button again.

Decreasing cruising speed

To reduce the vehicle speed, do the following:

- Press the − button; each time the button is pressed, the vehicle speed reduces by 5 km/h.
- Press and hold the − button to reduce the cruising speed at a decrement of 5 km/h until the button is released or the cruising speed is 15 km/h.
- During cruising, gently depress the brake pedal (with ACC deactivated), keep braking until the target speed is reached, and press button to cruise at the current speed.
- During the cruising process, press the button of steering wheel (with ACC deactivated), make the vehicle coast or slightly depress the brake pedal until the target speed is reached, and press the button to cruise at the target speed.

Controlling ACC distance

After the ENGINE START/STOP button is set to “ON” position, when ACC is activated, the default time interval setting is in the fourth range (the time interval in the fourth range is the longest).

By pressing the button the distance setting can be changed recurrently in the order of “fourth range → third range → second range → first range → fourth range...”. At the same time, the instrument cluster will display the same number of cross bars as the ordinal number of the range.

Activating ACC after following stop

In the process of following a vehicle in front, the vehicle will also be stopped if that vehicle is stopped. ACC will keep the vehicle stationary through active pressurization via the ESP during a period of time after following stop. After a period of time, the ACC will keep the vehicle stationary by activating EPB. When the front vehicle is driving away, the ACC of the vehicle is activated in three situations:

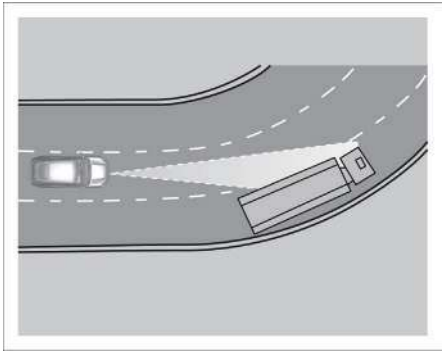
1. If the blue ACC indicator lamp comes on, ACC can be reset actively and re-drive the vehicle after the vehicle ahead is driven off.
2. If the gray ACC indicator lamp comes on, EPB is not activated and Autohold is not activated, the instrument cluster will show “Waiting for ACC”, and the driver can press the accelerator pedal or + button to resume ACC and drive the vehicle again.
3. If the gray ACC indicator lamp comes on and EPB is activated, the driver needs to release EPB and then press + button to resume ACC and drive the vehicle again.

System limitations

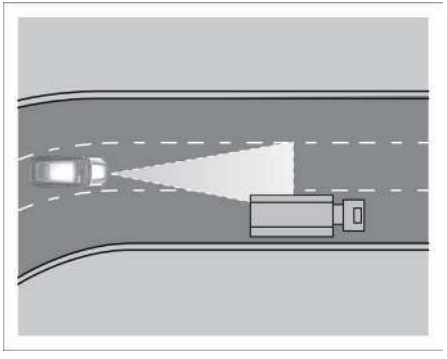
ACC is limited by physical laws and has certain system limitations. In some driving environments, the driver may feel that the ACC response is lagging or fails to control the vehicle as scheduled. Therefore, the driver must be ready to control the vehicle by himself at any time.

The following conditions will affect the sensor function of the radar system, and the driver must be especially alert when encountering these conditions:

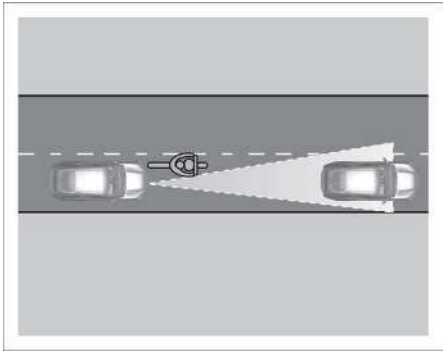
1. Decelerating to stop. If the vehicle ahead stops by emergency braking, ACC will also decelerate your vehicle or send a hands-on operation request. The driver should actively intervene in the brake according to the hands-on operation request to stop your vehicle completely.



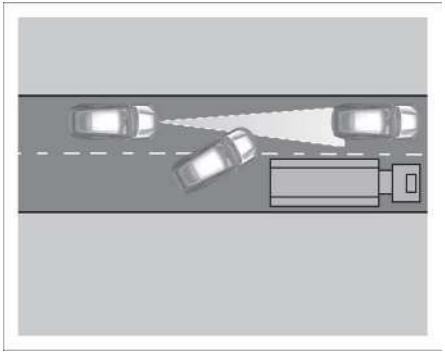
2. Driving through a curve. When driving through a curve, the radar sensor may not catch the vehicle ahead or may not be able to react to the vehicle in the adjacent lane. In this case, ACC may apply the brake, reduce the vehicle speed, or have no reaction to the vehicle ahead. Depress the brake pedal or manually cancel ACC to exit the ACC system.



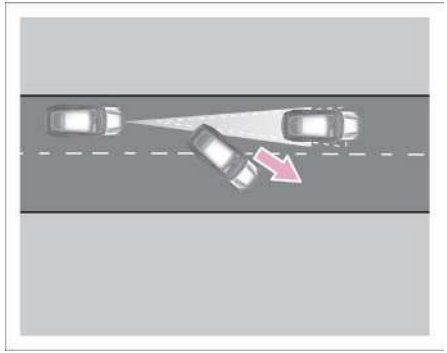
3. Driving out of a curve. During driving out of a long curve, as ACC will calculate the lane in advance, the radar may respond to the vehicles in adjacent lanes and apply the brake of your vehicle. This braking process can be interrupted by depressing the accelerator pedal.



4. Narrow vehicles and Z-shaped traffic in front. The narrow vehicles and Z-shaped traffic in front can be detected by the RPA sensor only when they enter the detection range of the RPA sensor. That is to say, the system cannot identify vehicles out of the detection range of the sensor. The ACC system is not easy to identify narrow vehicles such as motorcycles. At the same time, there is a risk that the ACC system may not be able to accurately identify the distance from the front vehicle which are modified or with irregular transportation. It is not recommended that such vehicles are taken as the front target vehicle.



5. When another vehicle changes the lane. When a vehicle in the adjacent lane goes into the ego lane, if it does not enter the detection range ahead, it could not be detected by the RPA sensor, thus resulting in a response lag of ACC.

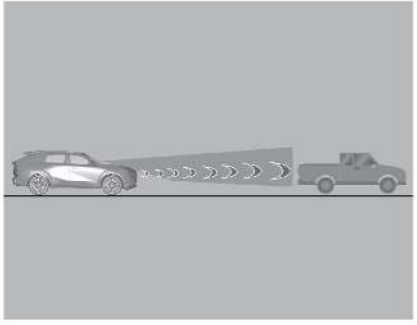


6. If the target vehicle in front is driven out suddenly and a stationary vehicle appears at close range, the RPA sensor and brake actuator will incur a response lag, causing delayed braking response.
7. Influencing factors that may deteriorate the sensor function.

- Heavy rain, water mist, ice and snow or sludge may deteriorate the radar sensor, causing the ACC to be temporarily deactivated, and cause display of following text messages on the instrument cluster: “ACC working conditions are not met” or “MRR is blocked”. At this time, ACC and FCM are unable to play their roles.

- Frosting or fogging of front windshield due to temperature difference or frost in low-temperature and alpine areas, will obstruct the IFC sensor, and cause display of following text messages on the instrument cluster: “ACC working conditions are not met” or “MRR is blocked”. At this time, ACC and FCM are unable to play their roles.

8. Brake overheating. If the brake is overheated due to emergency braking or driving down a steep slope, ACC will be deactivated automatically, and meanwhile the instrument cluster will display a tell-tale reading “The working conditions of the cruise control system are not met”. After that, ACC can no longer be activated until the brake temperature drops to a reasonable degree.



9. The ACC should not be used in cities with traffic jams and poor visibility (night/backlighting/rain/snow/dense fog, etc.). ACC may not take braking measures in face of people, animals, narrow vehicles such as bicycles, motorcycles or electromobiles, low-bed trailers, approaching or stationary vehicles, and low-speed or stationary trucks/small pickup trucks, so the driver should be particularly alert and always be ready to take over the vehicle.

⚠ WARNING

- **The ACC cannot address all driving scenarios and traffic, weather and road conditions.**
- **The ACC is only a driver assist system, and cannot replace your attention and judgment. It is your responsibility to maintain a safe distance and speed, and you must be ready to intervene if the ACC fails to maintain a proper speed or distance from the vehicle ahead.**
- **The hands-on reminder of ACC only warns the driver of vehicles detected by its radar and IFC sensor, so ACC may not send an alarm, or may send an alarm after a certain delay. Never wait for an alarm to be given and step on the brake when the situation requires.**

⚠ WARNING

- **For the sake of safety, it is not allowed to use ACC under conditions such as urban driving, traffic jams, multi-curve roads and poor road conditions (e.g. icing, fog, gravel, heavy rain, and phenomena prone to water skiing), because there is a danger of accident.**
- **The ACC is not a collision avoidance system. If your vehicle is getting closer and closer to the vehicle ahead at a speed higher than that of the vehicle ahead and the braking effect of ACC is unable to stop the vehicle safely before a collision with the vehicle ahead, the driver must depress the brake pedal to reduce the vehicle speed.**
- **Do not activate ACC during driving in roadless areas or on earth roads. ACC can only be activated on flat roads paved with pitch, cement, etc.**

⚠ WARNING

ACC does not respond or responds only to a limited extent to the followings:

- **large speed difference with the vehicle ahead.**
- **driving in different lanes, lane changes or driving on curves with small radius.**
- **pedestrians, animals, bicycles, tricycles, stationary vehicles or unexpected obstacles.**
- **complex traffic conditions.**
- **oncoming traffic or cross traffic.**
- **low trailers or trucks, and vehicles with irregular or non-standard characteristics.**

Therefore, be sure to notice traffic conditions and respond accordingly. Do not wait for the system to identify the target or apply the brake, but apply the brake as needed.

i NOTE

- Do not bump the radar sensor. If the sensor is misaligned due to bumping, the system performance will still deteriorate even after repair and correction and even the system will be shut down.
- If the surface of the radar or IFC sensor is dirty or covered by heavy rain, ice, snow, sludge, etc., ACC may not function, and the instrument cluster will display the message “MRR is blocked” and “IFC is blocked”. After the dirt is cleaned off the sensor surface, ACC will return to normal.
- Do not spray the front bumper with car paint or attach decorations such as stickers, as this may cause a decrease in MRR performance.
- ACC may not respond to people, animals and vehicles crossing or approaching the vehicle in the same lane.

NOTE

- When driving through crossroads, speed bumps, steep roads and zebra crossings, or at changing lanes, highway access, ramps or construction sections, it is required to exit ACC for manual driving, lest the vehicle should be automatically accelerated to the set speed, causing traffic accidents.
- ACC can automatically drive the vehicle out after a short stop or confirmation from the driver (control of buttons or accelerator pedal). During this period, the driver must ensure that there are no obstacles or other traffic participants such as pedestrians/two-wheelers ahead of the vehicle.
- If ACC fails to function normally, do not continue to use it. It is recommended to go to the GAC Motor authorized shop for inspection and repair in time.

NOTE

- ACC may not react under certain circumstances. For example, when ego vehicle approaches a stationary obstacle such as a broken-down vehicle or a vehicle stuck in traffic jams, or when a vehicle traveling in the same lane approaches ego vehicle.
- ACC can only provide limited braking force, and thus cannot be used for emergency braking.
- Prevent placing your foot on the accelerator pedal when not required; otherwise, the ACC cannot function for braking, as the depressing of accelerator pedal will cause excessive control of vehicle speed and distance.
- When the vehicle is traveling in heavy rain or snow such that ACC is difficult or unable to identify the vehicle ahead, it is required to switch off the ACC.

NOTE

- When ACC is on, the ACC status displayed by the instrument cluster may be overwritten by other functions (for example, during a call).
- When ACC brakes the vehicle automatically after activation, there will be a sound different from manual braking sound or the brake pedal will be depressed automatically, which is normal. Such sound and pedal action are caused by the operation of the brake system, so there is no need to worry.
- For safety, the stored cruising speed will be deleted after the vehicle power is turned off.
- The accelerator pedal can be depressed when required to increase the vehicle speed. After the accelerator pedal is released, ACC will readjust the vehicle speed to the previously stored value.
- If the vehicle enters a tunnel, the radar and IFC may enter the blind mode, and ACC may be turned off temporarily.

Display of longitudinal distance from vehicle ahead

ACC detects the relative distance and speed with the vehicle ahead in the same path according to the radar installed at the front of the vehicle and the IFC on the windshield, and displays it on the instrument cluster display.

- When there is a vehicle ahead, if the display of longitudinal distance from vehicle ahead is selected, the relative distance value of the vehicle ahead can be displayed on the instrument cluster.
- When there is no vehicle ahead, the instrument cluster cannot display the relative distance value of the vehicle ahead.

On/Off

When the vehicle power supply is in “ON” position, the FCW and AEB are automatically turned on.

The function of display of longitudinal distance from vehicle ahead may be turned on/off via “Settings → ADiGO Intelligent Driving → ADiGO Active Safety → Longitudinal Distance from Vehicle Ahead” in the AV system interface.

i NOTE

The radar sensor and IFC are limited in detection and cannot recognize vehicles outside the detection range of the sensor.

⚠ WARNING

- **Be sure to use the displayed longitudinal distance from vehicle ahead cautiously according to the visibility, weather conditions, road and traffic conditions at the time. The driver must always keep control of the vehicle and take full responsibility for the speed of the vehicle and the distance from other vehicles.**
- **The driver cannot judge and make decisions completely according to the longitudinal distance from vehicle ahead. The driver should always be responsible for ensuring that the vehicle travels safely at an appropriate speed and maintains an appropriate distance from other vehicles.**

6.4.2 Integrated cruise assist (ICA) system

The integrated cruise assist system is abbreviated as ICA. ICA can automatically adjust the distance from the vehicle ahead during cruise control and keep the vehicle traveling in the middle of the lane at the cruising speed of 0~130 km/h.

ICA detects the relative distance and speed with the vehicle ahead in the same path according to the signals from the MMW radar installed on the front of the vehicle and the IFC installed on the front windshield, and detects the lane marking through the IFC.

ICA can improve driving comfort and provide a more relaxed driving experience, such as long-distance driving in smooth traffic on the highway.

i NOTE

Precautions for use of radar and IFC sensors. => See page 197

Operation Instructions

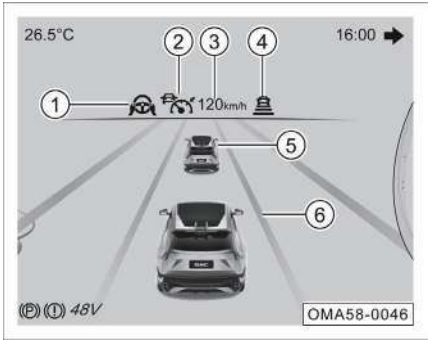
Press the button on the left side of the steering wheel to turn on ICA.

After turning on ICA, press the operation mode of ACC to turn on or activate ICA. The cruise control mode can be switched when ACC is turned off/on or activated. => See page 157

ICA has a cruise control mode memory function. After the vehicle is started, the cruise control mode will be the same as that before vehicle power-off last time.

When ICA has a specific fault not affecting ACC, the cruise control mode will automatically jump back to ACC mode. At this time, the driver cannot choose to enter the ICA mode, but ACC can still work normally.

Interface description



① Lateral control status indicator lamp:

- A blue steering wheel icon is displayed when the lateral assist control function is activated, and a gray steering wheel icon is displayed when the function is in standby status.
- The hands icon on the steering wheel icon stays on when the driver's hands on steering wheel is detected.
- During system activation, if it detects that the driver's hands are off the steering wheel for about 14 s, the hands icon will flash.
- The system can also dynamically pop up the text prompt "Please turn steering wheel gently" and sound the corresponding prompt according to the actual situation of the driver holding the steering wheel.

② ACC indicator lamp

③ indicates the set cruising speed

④ indicates the set cruising distance from the vehicle ahead

⑤ indicates the detected vehicle ahead

⑥ Lane marking

NOTE

When the instrument cluster theme is "Organic", the ICA display will be switched to a simplified display, which only shows the target vehicle directly ahead and the lane markings of the ego lane.

Lateral control

When ICA is activated, the lateral control function will be automatically activated if an effective lane marking is detected on both sides.

Lateral control will keep the vehicle traveling in the middle between the lane markings on both sides.

The lateral control will be suppressed under the following conditions:

- Lane marking curvature is too high or missing
- Under intense driving conditions
- Turn signal lamp is turned on
- Hazard warning lamp is turned on
- Driver turns steering wheel
- Hands-on reminder is given by the system when driver's hands are off the steering wheel for a long time.
- ACC is deactivated => See page 159

The ICA system can only use limited capability of steering system, so it cannot cope with all driving conditions. The driver must keep his hands on the steering wheel all the time and drive with care.

When ICA intervenes in the steering wheel for lateral assist control, the driver can still turn the steering wheel to control the vehicle. When the driver feels that the torque applied by the system is improper, he/she can control and drive the vehicle as his/her attention at any time.

Takeover prompt

Please take over now!

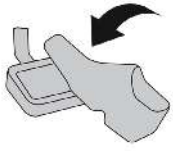
OMA58-0191

When detecting that the steering wheel is out of the driver's hands for a long time, ICA will issue a hands-on reminder and the instrument cluster will display the figure above while beeping.

The driver shall immediately hold the steering wheel immediately after receiving the hands-on reminder. Do not panic and avoid turning the steering wheel sharply unnecessarily. When the ICA system detects the hand torque applied to the steering wheel, it can recognize that the driver holds the steering wheel with hands, and the takeover prompt is cancelled. The ICA automatically re-activate the lateral assist.

Note that the lateral assist control function of ICA will be deactivated after the steering wheel hands-on reminder is issued and the driver does not take over in time.

The condition that the driver's hands are lightly holding the steering wheel may be misinterpreted by the ICA system as the steering wheel out-of-hand. In this case, when the system issues a steering wheel hands-on reminder, the driver only needs to hold the steering wheel tightly or shake the steering wheel slightly, so that the system can detect the torque applied to the steering wheel. Afterwards, the hands-on reminder will disappear.



Please take over now!

OMA58-0048

The ICA system can only use the limited braking ability of the service brake system. When the system requires the driver to intervene in braking, the instrument cluster shows the above figure and the buzzer sounds.

The driver shall immediately hold the steering wheel immediately after receiving the hands-on reminder.

After the brake pedal is depressed, the ICA will exit. If the emergency is eliminated and the ICA needs to be reactivated, operate to restore ACC or set the ACC button. => See page 157.

Intelligent avoidance

When the ICA is activated, the intelligent avoidance system will automatic control the vehicle to avoid when it identifies a specific side risk (such as a large vehicle in the adjacent lane). The intelligent avoidance function can be turned on or off in the AV system "Settings → ADiGO intelligent driving → ADiGO active safety assistance → Intelligent avoidance".

The system has the button state memory function, so when the vehicle is restarted, the button will be in the state before last power-off.

When the intelligent avoidance function is activated, the icon color of target vehicle in the adjacent lane on the instrument cluster will turn yellow, and the text prompt of "intelligent avoidance" will pop up automatically in the alarm prompt pop-up window.

Limitations

Because ICA can only use the limited capacity of the steering system and brake system, ICA cannot maintain an appropriate headway or keep the vehicle in the lane under all road conditions.

ICA may incorrectly detect lane markings or fail to detect lane markings, or may incorrectly detect target vehicles or fail to detect target vehicles ahead. Under the following situations, the system may be affected, misoperated, or inoperative even if the function is turned on and shows that it has been activated:

- Poor line of sight caused by, e.g., snow, rain, fog or water spots.
- Dirt or fog on the front windshield, or obstruction in front of the IFC.
- Too high temperature around the IFC due to direct sunlight.
- Poor line of sight due to direct sunlight, light glare of oncoming vehicles, reflected light from road water-logging, etc.
- Sharp changes in illumination conditions, such as entering/exiting tunnels.
- Failure to turn on headlamps at night or in the dark tunnel.
- No lane marking, or difficulty in distinguishing the lane marking color from the road surface color.
- Unclear, too thin, worn, blurred or dirt/snow-covered lane markings.
- Too wide or narrow lanes.
- Increased or decreased number of lanes or complicated lane markings.
- More than two lane markings on the left and right sides of the vehicle.
- Marks or objects similar to lane markings on roads.
- Projections of isolation strips or other objects on lane markings.
- Short-term change of markings, such as at ramps or motorway exits.
- Driving on steep slopes or curved roads.
- Close distance from the vehicle ahead or lane markings blocked by the vehicle ahead.
- Severe shaking of the vehicle.
- Longitudinal control of ICA is based on ACC. For more limitations, please refer to the relevant sections of ACC. => See page 162.

The lateral control assist performance of ICA may be affected under the following conditions:

- The vehicle is overloaded.
- The tire pressure is abnormal.
- The road is uneven.
- There is strong crosswind.
- The driver modifies the parts related to vehicle control.
- The parts related to vehicle control are replaced with non-genuine parts.
- The parts related to vehicle control are improperly assembled.

NOTE

When the ICA system is assisting in the control of steering wheel, the driver can still turn the steering wheel to control the vehicle. When the driver feels that the correction torque applied by the system is improper, he/she can control and drive the vehicle according to his intention at any time.

CAUTION

- If the ICA is deactivated for any reason, such as a brief exit due to lane markings, it will be automatically restored when the operating conditions are met.
- When judging that the vehicle is controlled by the ICA improperly, the driver can hold the steering wheel firmly for appropriate control, and the ICA function may be interrupted by the driver's operation on the steering wheel.
- The ICA function can be interrupted by the driver's operation, such as depressing the brake pedal, quickly depressing the accelerator pedal, pressing the ICA button, unfastening the seat belt, pressing the hazard warning lamp switch, etc. Therefore, please keep your hands on the steering wheel.

WARNING

- **The ICA is only a driving assistance function and cannot cope with all road, traffic and weather conditions. The driver is always fully responsible for driving, and should always pay attention to the road conditions and actively control the vehicle.**
- **The driver must always hold the steering wheel and actively control the vehicle. When ICA does not provide proper steering assist or appropriate headway, the driver shall intervene timely.**
- **Before using the ICA, the driver must read through all chapters on this function in the user manual to understand the system limitations of this function. Before using this function, the driver shall be aware of these limitations.**

⚠ WARNING

- **Improper use or negligence of the ICA may cause accidents. Therefore, the driver should always control the vehicle, maintain an appropriate vehicle speed and distance between vehicles, and keep the vehicle running correctly in the lane, even if the ICA is being used.**
- **The ICA system is not a collision avoidance system. When the system is not properly controlled, the driver must intervene in.**
- **Do not use ICA in urban traffic, intersections, water-logged or snowy roads, bad weather, mountain roads, rough roads and motorway access, etc. Do not use ICA when a trailer is coupled.**

⚠ WARNING

- **The ICA system doesn't always identify lane markings. The system may mistakenly identify or even don't identify a lane marking due to bad weather, poor lighting, drastic changes in lighting in and out of tunnels, water or snow on road, damaged, blurry or non-standard lane markings, shade on roads, braking marks, surrounding vehicles, maintenance facilities, guardrails, etc., rapid changes in lane markings (such as lane merging or bifurcation). Therefore, ICA may not generate lateral assist torque when needed, or may generate unnecessary lateral assist torque by mistake.**
- **The ICA system can only use limited capability of steering system, so it cannot cover all driving conditions. The driver must keep his hands on the steering wheel all the time and drive with care. The driver must hold the steering wheel or reduce the vehicle speed appropriately on high-speed curves.**

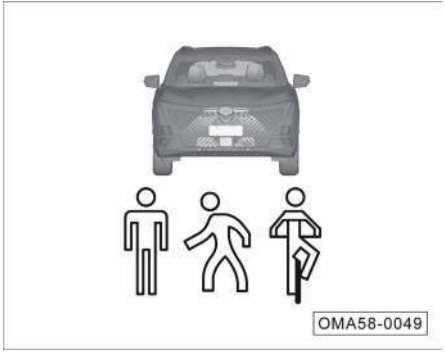
⚠ WARNING

- **The ICA system cannot apply brakes for pedestrians, animals, foreign objects, low platform trailers or oncoming vehicles.**
- **ICA cannot address all traffic conditions. For example, the lateral assist control function may be suddenly deactivated under conditions such as high curvature of lane marking before a sharp curve, and roads without lane markings, and in these cases, the driver shall always hold the steering wheel to actively control the vehicle.**

6.4.3 Forward collision mitigation (FCM) system

The FCM assesses the danger level of pre-collision by detecting the relative distance and speed with the vehicle ahead in the same path according to the signal from the MMW radar installed on the front of the vehicle and the IFC installed on the front windshield and the driver's other operations (such as depressing the brake pedal or accelerator pedal), gives an alarm to remind the driver to take measures in time in case of a collision risk, and applies the brake automatically when an impending collision is detected. When the driver is braking while the braking force is insufficient to avoid a collision, the system will automatically increase the braking force to avoid or alleviate the collision.

Detectable objects:



- Vehicle.
- Two-wheeler
- Pedestrians

NOTE

Refer to precautions for use of radar and IFC sensor. => See page 197

Forward collision warning

The system issues an alarm for impending collision to alert the driver by detecting objects ahead according to the signal from the MMW radar installed on the front bumper and the IFC installed on the front windshield.

The FCM alerts the driver by the following methods:

1. Proximity warning

When the early of the FCM is triggered, the FCWS indicator lamp on the instrument cluster will flash, accompanied by the audible alarm and visual prompt.

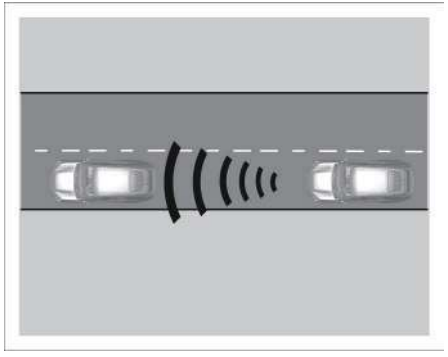
2. Brake jerk warning

When the ego vehicle has a high collision risk on the moving target vehicle, the short braking is triggered to better remind the driver that the brake shall be applied immediately.

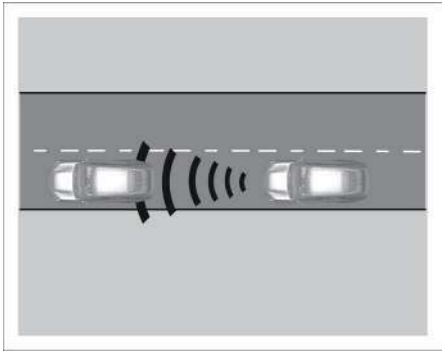
AEB

When a collision is about to occur, the system will issue an alarm to alert the driver that the vehicle is ready to apply emergency braking according to the signal from the MMW radar installed on the front bumper and the IFC installed on the front windshield, and then will assist in braking and activate the active brake assist function.

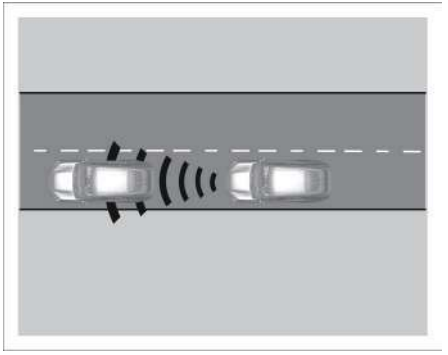
Active braking level



- Level 1 braking: Short braking is applied when approaching the vehicle ahead.

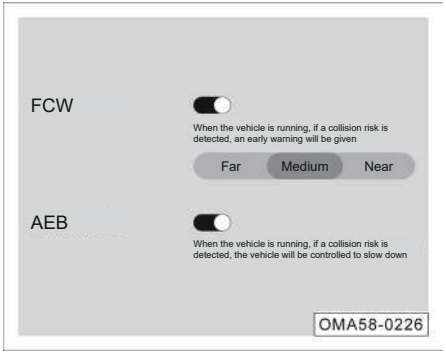


- Level 2 braking: Slight automatic emergency braking is applied in the case of further approach.



- Level 3 braking: Full braking is applied automatically when a rear-end collision is inevitable.

Activation and deactivation



- When the ENGINE START/STOP button is in the “ON” position, the forward collision warning and active brake assist functions are activated automatically.
- Enter the “Settings→ADiGO Intelligent Driving→ADiGO Active Safety→FCM” interface on the AV system display, press the soft key on the right side to activate or deactivate “FCW” or “AEB”.
- When turning off the FCW and AEB, the multi-function touch screen will pop up the secondary confirmation window, and click “Confirm” or “Cancel” to confirm the operation.

NOTE

- The warning distance “far, medium and near” can be set after the FCW is turned on. There is a memory function for the warning distance of the FCW system to remember the last set warning distance.
- After the FCW and AEB are turned off, the systems will no longer warn or brake for vehicles and pedestrians.
- After the FCW or AEB are turned off, if the vehicle power is switched from the “OFF” position to the “ON” position again, the FCW and AEB will be automatically turned on by default.

System limitations

FCM has physical and system limitations. For example, FCW and AEB may be triggered unintentionally or delayed by driver interference in some cases. So please stay alert and take the initiative to take control if necessary.

The following conditions may cause delayed operation or non-operation of the FCM:

- The ground clearance of vehicle ahead is very high, such as a semi-trailer.
- The rear of vehicle ahead is low, such as a low-bed trailer.
- The shape of vehicle ahead is irregular, such as a tractor and a straddle truck.
- The brightness of the surrounding environment changes suddenly, such as tunnel entrance and exit.
- The rear of vehicle ahead is small, such as an unladen truck.
- A detectable object ahead performs emergency acceleration, deceleration and steering.

- A detectable object ahead suddenly comes in front of the vehicle.
- There is a bicycle with a special shape ahead, such as a tandem bicycle.
- The vehicle is at extremely high speed.
- The vehicle is driven on a slope.
- The vehicle is running on a narrow curve.
- The accelerator pedal is depressed with force or the vehicle accelerates rapidly.
- The assist function is deactivated or operates abnormally.
- The ESP is manually deactivated.
- The vehicle enters ESP control.
- The surface of area where the intelligent front camera is located or the RPA sensor surface is dirty or covered by foreign objects.
- The vehicle is reversing.
- Traffic is chaotic.
- The body tows other vehicles.
- Pedestrians stand on traffic safety islands or bends.
- A pedestrian is completely or partially covered by other objects, such as a worker holding a ladder or a pedestrian holding an umbrella.
- Pedestrians wearing fancy clothes or masks, for example, carnival costumes.
- Poor visibility conditions, such as sunset, night, ice, snow, heavy rain, fog, backlight, etc.

Under the following conditions, the system may also work even if a collision is impossible:

- There is a detectable object in front of the vehicle.
- The ego vehicle is overtaking a vehicle changing lane or turning right/left.
- The ego vehicle is overtaking a vehicle ready for right/left turn.
- There is a detectable object at the bend entrance.
- The vehicle changes lanes in the process of overtaking the detectable object.
- The vehicle is approaching the front detectable target in the winding lane or when changing the driving route.
- The vehicle runs under portal frames, billboards, road signs, etc.
- There are manhole covers, steel plates and other metal objects in front of the vehicle.
- The vehicle approaches a roadside telegraph pole, railing, tree, etc.
- When driving through grass, branches, banners and other objects that may come into contact with the vehicle.
- The vehicle runs near an object reflecting radio waves.

⚠ WARNING

The active brake assist function must be deactivated when

- **The vehicle is towed**
- **The vehicle is on the hub test bench.**
- **The radar sensor or IFC sensor is faulty.**
- **There is an external force (such as rear-end collision) acting on the radar sensor.**

⚠ WARNING

- **The FCM can improve your driving safety, but it is impossible to violate the laws of physics. Do not use the convenient functions provided by FCM to drive at risk. The driver must always be ready to apply the brake to reduce the vehicle speed or avoid obstacles.**
- **The FCM only provides warning and collision mitigation for vehicles/ pedestrians detected by the radar and IFC sensor, so there may be no response or a certain delay in the response. Therefore, the driver shall apply the brake if necessary instead of waiting for the FCM to operate.**
- **The FCM only provides the driver with warning to avoid collision and limited braking to mitigate collision injuries, and cannot prevent a vehicle accident or injuries on its own. The driver must always keep control of the vehicle and take full responsibility for the vehicle speed and the distance from other vehicles.**

⚠ WARNING

- **When the FCM is activated, the driver shall always keep control of the vehicle during driving and take full responsibility for the vehicle speed and the distance from other vehicles.**
- **Never ignore the lit up warning lamps and instrument cluster display reminders, otherwise traffic accidents and serious injuries may occur.**
- **Therefore, Always pay attention to traffic conditions and do not rely too much on AEB function. The AEB function is only a driving assistance tool and it is the driver's responsibility to maintain a proper distance from the vehicle ahead and to control the speed for timely braking. Prepare for braking or steering if necessary.**

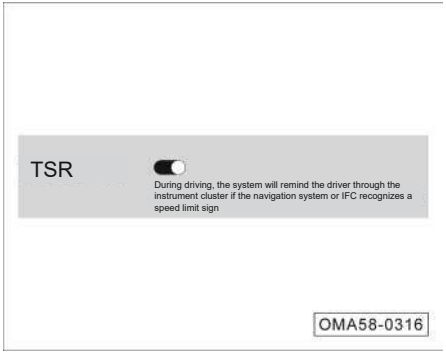
i NOTE

- Depressing the accelerator pedal or turning the steering wheel will terminate the FCW alarm and AEB intervention.
- In a complex driving environment (such as traveling on a circuitous road), the FCW and active brake assist functions may give an unnecessary warning and brake the vehicle unnecessarily.
- When the AEB is triggered, the vehicle will be braked, and the brake pedal may feel vibration or become hard, which is a normal phenomenon.
- When affected by factors such as electromagnetic field interference, the target's own reasons or the environment, detection will be interfered and the performance will be degraded.

6.4.4 Traffic sign recognition (TSR)

Traffic sign recognition is abbreviated to TSR. TSR provides the driver with speed limit information by detecting speed limit signs ahead on the road through the IFC installed on the front windshield and according to data from the navigation of the A/V system, and alerts the driver to overspeed when the speed limit is exceeded.

Activation and deactivation



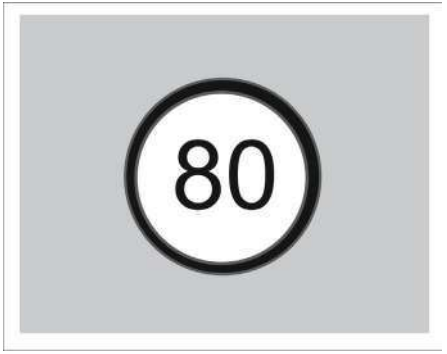
The TSR function can be turned on or off in the AV system “Settings → ADiGO intelligent driving → ADiGO active safety assistance → TSR”.

After this function is turned on, if the navigation system or IFC recognizes the speed limit sign on the road ahead, the speed limit value will be displayed on the instrument cluster; if the current vehicle speed displayed on the instrument cluster exceeds a certain threshold over the speed limit, the speed limit sign icon on the instrument cluster will keep flashing.

NOTE

The system has the button state memory function, so when the vehicle is restarted, the button will be in the state before last power-off.

Display interface description



A normal speed limit is identified, including but not limited to general speed limit sign, combined speed limit sign, divided lane speed limit sign, electronic eye speed limit, and interval speed limit.

When the actual speed of the vehicle is slightly higher than the speed limit indicated by the instrument, the speed limit sign on the instrument cluster will continue to flash.

Functional limitations

The TSR, even activated, may involve wrong or failed detection of speed limit sign due to inevitable environmental factors and conditions. The system may be affected or fail to work under the following conditions:

- The IFC is blocked or interfered with bright light.
- At night or in the tunnel with weak light, the headlamp is not turned on or the headlamp cannot fully illuminate the speed limit sign.
- The speed limit sign is partially or completely obscured.
- The speed limit sign is worn, blurred or stained.
- The speed limit sign is not properly placed, such as twisted and tilted.
- The speed limit sign is obstructed by the vehicles in the adjacent lane or obstacles.
- The speed limit has been changed due to temporary road construction.
- Navigation data is not updated online in time or inaccurate.
- The road is not standardized, and other road signs are misidentified as speed limit signs.
- Road speed limit information for other vehicles is output due to inaccurate navigation and positioning.

⚠ WARNING

- **The TSR function can only recognize the speed-related signs, not other road signs.**
- **The TSR can only recognize the speed limit for this road. Do not rely on the TSR to determine the appropriate driving speed, but always drive within the safe speed range according to the speed limit and road conditions.**
- **The TSR can only work under some conditions. The driver shall always assume the ultimate responsibility for safe driving and comply with applicable laws and road traffic rules.**

6.4.5 Intelligent speed limiter adaptive cruise control (ISL-ACC)

The Intelligent Speed Limit Adaptive Cruise Control is abbreviated to ISL-ACC. When there is a speed limit sign in the front path, the ISL-ACC issues a target vehicle speed following prompt according to the information obtained by the traffic sign recognition (TSR), and the driver chooses whether to follow the speed of the target vehicle of the Cruise Control.

Activation and deactivation

Enter the “Settings → ADiGO Intelligent Driving → ADiGO Active Safety Assistance → ISL-ACC” interface on the AV system display to activate or deactivate the ISL-ACC function.

When this function is activated, the TSR function is activated synchronously; when this function is deactivated, the TSR function remains in the previous state.

NOTE

The system has the button state memory function, so when the vehicle is restarted, the button will be in the state before last power-off.

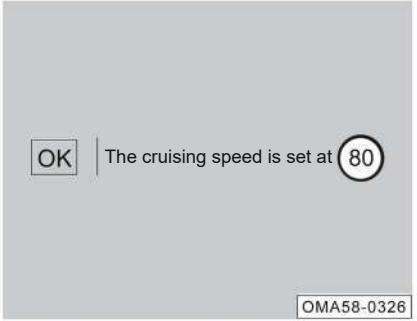
ISL-ACC trigger requirements

To trigger the ISL-ACC, the following requirements shall be met:

- ISL-ACC is on.
- ACC is in working state.
- ACC current target vehicle speed-TSR vehicle speed is greater than the set system difference.
- TSR first recognizes the speed limit sign or recognizes that the speed of speed limit sign changes.

After the ISL-ACC is triggered, the driver will be prompted whether to synchronize the TSR within the next 5 seconds.

ISL-ACC synchronized target cruising speed



When the pop-up text prompts “Cruising speed set to”, “Current speed limit sign” and “OK” appear on the instrument panel:

1. When the driver presses the OK button, it indicates that the driver agrees to synchronize the speed limit sign, and the ACC target speed is set to the speed shown on the current traffic sign.
2. When the driver does not operate the OK button about 5s after the prompt message is shown, it means that the driver has not taken the synchronous speed limit prompt, and the ACC target speed remains unchanged.

6.4.6 Lane departure warning (LDW) system

The LDW is designed to reduce accidents caused by unintentional lane departure.

The lane departure warning system detects the lane markings on the road through the IFC installed on the front windshield, analyzes the driving behavior of the driver and moving status of the vehicle, and gives a warning or interferes with the steering wheel to correct the lane departure when the vehicle unconsciously deviates from the lane due to fatigue, distraction or phone calls of the driver. It usually gives a warning or interferes with the steering wheel when the front wheel crosses a lane marking.

When the driver selects the “Steering” or “Steering and warning” mode and the LDW operating conditions are met, the system will monitor the torque on the steering wheel. When the driver keeps his hands off the steering wheel for a long time, the system will alert the driver.

Activation and deactivation

Enter the “Settings→ADiGO Intelligent Driving→ADiGO Active Safety→LDW” interface on the AV system display, click the soft key on the right side of “LDW” to activate or deactivate this function.

When the function is activated, you can see that the button changes to the on state and the LDW indicator lamp on the instrument cluster lights up;

When the function is deactivated, you can see that the button changes to the off state and the LDW indicator lamp on the instrument cluster goes out.

The system has the button state memory function, so when the vehicle is restarted, the button will be in the state before last power-off.

Selecting LDW mode

When the ENGINE START/STOP button is in the “ON” position, enter the “Settings → ADiGO intelligent driving → ADiGO active safety assistance → LKA” interface on the AV system display to select the LKA mode.

1. Steering

- When “Steering” is selected, the system only intervenes in turning of steering wheel for corrective steering adjustment.

2. Warning

- When “Warning” is selected, the system only issues a warning.

3. Steering and warning

- When “Steering and Warning” is selected, the system will not only issue a warning but also intervene in turning of the steering wheel for corrective steering adjustment.

i NOTE

The LDW has the lane keeping assist mode memory function, so the lane keeping assist mode before last shutdown will be selected when the vehicle is restarted.

Alert

The lane departure warning prompt is only triggered when the assist mode is “Warning” or “Steering and Warning”.

- When the instrument cluster shows a speed higher than 65km/h and the system detects a valid lane marking at least on one side, the indicator lamp on the instrument cluster lights up in blue. It indicates that the system may issue a LDW at this time. When only the lane marking on one side is identified, the system only gives a lane departure warning for that side.

When the indicator lamp is blue, the system may not issue a warning if the vehicle departs from the lane under any of the following conditions.

- Depress the brake pedal to slow down with a large braking force.
- The corresponding turn signal lamp is turned on.
- The hazard warning lamp is turned on.
- The driver quickly turns the steering wheel.
- The time from the last alarm is short.
- The vehicle is rolling on or crossing over the lane marking.

When the indicator lamp lights up in green, if no condition mentioned above happens and the vehicle departures from the lane (due to the driver's fatigue, distraction or phone calls, etc.), the system will alert the driver by displaying the corresponding lane marking (in red) prompt on the instrument cluster and beeping.

Steering assist

The corrective steering adjustment indication of lane departure warning system is triggered only when the assist mode is "Steering" or "Steering and Warning".

When the instrument cluster shows a speed higher than 65km/h and the system detects a valid lane marking at least on one side, the indicator lamp on the instrument cluster lights up in blue. It indicates that the system may intervene in the steering wheel for lane keeping assist at this time. When the lane edge of only one side is identified, the system will only correct this side.

When the indicator lamp is blue, the system will not intervene in turning of the steering wheel for corrective steering adjustment under one of the following conditions:

- Depress the brake pedal to slow down with a large braking force.
- The corresponding turn signal lamp is turned on.
- The hazard warning lamp is turned on.
- The driver quickly turns the steering wheel.
- The time from the last alarm is short.
- The vehicle is rolling on or crossing over the lane marking.
- The instrument panel prompts the driver to take over if the driver's hands are off for a long time.

When the system intervenes in turning of the steering wheel for corrective steering adjustment, the driver can feel the torque applied to the steering wheel by the system and the instrument cluster displays the corresponding lane marking (blue) prompt.

Takeover prompt

When the LDW detects that the driver's hands have been off the steering wheel for a long time, the system will issue hands-on reminder and the instrument cluster will display the above figure, accompanied by audible alarm. This prompt is only present when steering, steering and warning are selected by driver.

The driver shall immediately hold the steering wheel immediately after receiving the hands-on reminder. Do not panic and avoid turning the steering wheel unnecessarily. After the LDW recognizes that the driver is holding the steering wheel by detecting the torque manually applied to the steering wheel, the hands-on reminder disappears. LKA automatic reactivation.

NOTE

The condition that the driver's hands are lightly holding the steering wheel may be misinterpreted by the ICA system as the steering wheel out-of-hand. In this case, when the system issues a steering wheel hands-on reminder, the driver only needs to hold the steering wheel tightly or shake the steering wheel slightly, so that the system can detect the torque applied to the steering wheel. Afterwards, the hands-on reminder will disappear.

Other indications

When the system detects that the IFC is inoperative, a "MRR blocked" message will pop up in the instrument cluster.

Usually, this is due to dirty front windshield or IFC exposed to low sunlight. The LDW will not be damaged due to this and needs not to be checked.

The driver can try to wipe the front windshield with water spray.

When a fault is detected, the message reading "Please check the LDW" will pop up on the instrument cluster and the indicator lamp  turns yellow. Please go to the GAC Motor authorized shop for inspection and repair as soon as possible.

Functional limitations

Even if the LKA is turned on and working, it may detect lane marking incorrectly or does not detect it at all due to unavoidable environmental factors and conditions. The system may be affected or fail to work under the following conditions:

- Poor line of sight caused by, e.g., snow, rain, fog or water spots.
- Dirt, fog on the front windshield or obstruction in front of the IFC on the front windshield.
- Too high temperature around the IFC due to direct sunlight.
- Glare due to direct sunlight, oncoming traffic, reflected light from road water-logging, etc.
- Sudden changes in outdoor brightness, such as entering/exiting tunnels.
- Headlamp not turned on at night or when the light is low in tunnels.
- No lane marking, or difficulty in distinguishing the lane marking color from the road surface color.
- Unobvious, too thin, worn, blurred or dirt/snow-covered lane markings.
- Too wide or narrow lanes.
- Increased or decreased number of lanes, or complicated lane markings.
- More than two lane markings on the left and right sides of the vehicle.
- Marks or objects similar to lane markings on roads.
- Isolation strips or other objects casting shadows on lane markings.
- Short-term change of markings, such as at ramps or motorway exits.
- Driving on steep slopes or curved roads.
- Close distance from the vehicle ahead or lane markings blocked by the vehicle ahead.
- Severe shaking of the vehicle.

Under the following conditions, the performance of the system may be affected while it intervening in turning of steering wheel for corrective steering adjustment:

- The vehicle is overloaded.
- The tire pressure is abnormal.
- The road is uneven.
- There is strong crosswind.
- The driver modifies the parts related to vehicle control.
- The parts related to vehicle control are replaced with non-genuine parts.
- The parts related to vehicle control are improperly assembled.

NOTE

When the LDW intervenes in turning of the steering wheel for corrective steering adjustment, the driver can still turn the steering wheel to control the vehicle. When the driver feels that the correction torque applied by the system is improper, he/she can control and drive the vehicle according to his intention at any time.

CAUTION

- When the LDW detects an unintentional departure from the lane, it will issue a warning or intervene in turning of the steering wheel for corrective steering adjustment. Don't panic or turn the steering wheel fiercely.
- When the LDW detects that the driver's hands are off the steering wheel for a long time, it will issue a warning. Do not panic, turn the steering wheel fiercely, or shake the steering wheel unnecessarily. The driver can hold the steering wheel tightly with both hands for normal driving.
- When you select the LDW mode as "Warning", the system will not issue steering intervention and hands-on reminder, and when you select "Steering", the system will not issue the warning prompt.

WARNING

- **The LDW is just an assist system and cannot actively control the vehicle to change lanes or keep it in the lane. The driver must always check the road conditions, hold the steering wheel and actively control the vehicle.**
- **The improper use or negligence of LDW may cause accidents. Do not rely on LDW or try to drive dangerously with the help of LDW.**

⚠ WARNING

- **The LDW does not always recognize lane markings or lane edges. Due to bad weather, poor night lighting, accumulated water and snow on the road surface, broken or blurred lane markings, shadows cast on the road surface, etc., lane markings or lane edges may be missed or misidentified.**
- **This may cause missed and false triggering of the function, so the driver must be concentrate on observing the road and traffic conditions and drive carefully.**

⚠ WARNING

- **Avoid strong impact, moisture and heat to the IFC, and prohibit disassembling and assembling the parts by yourself. Do not place objects that reflect light on the instrument panel, because these objects are not only easy to dazzle the driver, but also may reflect light into the IFC field of view of the system, affecting the normal operation of the function.**
- **Do not color the front windshield of the vehicle or add coatings that do not conform to the specifications. Any additional items that affect the detection range of the IFC may affect the normal operation of the system.**
- **Be aware that the bumper or body shall be avoided from crashing or refitting, otherwise they may affect the normal operation of LDW.**

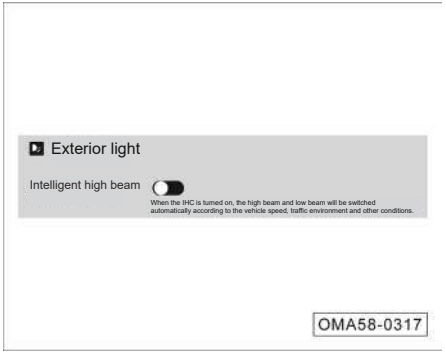
⚠ WARNING

- **If the LDW fails to detect the lane marking or judges that the driver deliberately deviates from the lane (for example, detected fast turning of the steering wheel), or the vehicle speed is lower than 65km/h, the LDW will not issue a warning or perform steering intervention even if the vehicle deviates or departs from the lane.**
- **The LDW can only adjust limited steering angle, so it can't promise that the vehicle will be driven back into the lane under any circumstances.**
- **The sound inside the vehicle or the noise outside the vehicle may prevent you from hearing the warning buzzer, so it cannot guarantee that you will be reminded of the LDW under any circumstances.**

6.4.7 Intelligent headlight control

The intelligent headlight control (IHC) detects the traffic and environmental conditions in real time via the IFC installed on the upper edge of the windshield and automatically switches between the low beam and high beam. For example, if the driver activates the IHC during driving on a road with poor lighting at night, the IHC will switch on the high beam automatically when it is detected that the operating conditions of high beam are met, and switches the headlamp from high beam to low bean when a vehicle ahead is detected close.

Activating IHC



1. When the ENGINE START/STOP button is in the “ON” position, enter the “Settings → Body Accessories → Exterior Light→IHC” interface on the AV system display, and press the soft key on the right side of “IHC” to set the IHC to “ON”.

NOTE

The IHC has the memory function, so that it will work in the state before last shutdown when the vehicle is restarted.

2. Turn the lamp switch to AUTO position to activate the automatic headlamp on/off function.

- After the IHC function is enabled, the system is in a standby state. When high beam conditions are not met or the driver does not manually turn on the high beams, the indicator lamp on the instrument cluster will turn white.
- When the IHC function is enabled, if high beam turning on conditions are met, the system will automatically switch to the high beam, and the indicator lamp on the instrument cluster will turn blue.

Deactivating IHC

The IHC function is turned off when one of the following conditions is met:

- Turn the lamp switch to a position other than AUTO.
- When the vehicle power switch is in the “ON” position, enter the “Settings → Body Accessories → Exterior Light → IHC” interface on the AV system display, and press the soft button on the right side of “IHC” to set the IHC to “OFF”.
- Power off the vehicle.

NOTE

The high beam and high beam flash functions can be manually turned on/off at any time.

Disabling conditions of IHC

The request for high beam will be suppressed, and the IHC will request to deactivate the high beam in the following cases:

- The vehicle speed value is lower than 15km/h.
- The fog lamps are turned on or it is rainy or foggy weather.
- The wiper is turned on to HI position for a period of time.
- The ambient light is bright.
- The street lamp, vehicle ahead in the short distance or an oncoming vehicle is detected.

The IHC will disable the switching of high and low beams in the following cases. In the absence of the above-mentioned conditions, the system will recommend to maintain the current light state:

- The lateral acceleration or yaw velocity is too high.
- High dynamic state (ABS or ESP activated).
- The vehicle speed value is lower than 35km/h.
- The turn signal lamp is turned on.

Functional limitations

When the IHC is activated, the automatic switching of high beam and low beam may be delayed or even unavailable when:

- The windshield surface in front of the IFC is covered with ice, snow, fog, dirt, sticker or other objects.
- There is highly reflective object on a low-lit street.
- The vehicle encounters pedestrians or bicycles, etc. on a road or a roadside with poor lighting.
- The light of the front oncoming vehicle is blocked by a crash barrier, a high bow-top road fence, a green belt, etc.
- The brightness of the tail lamps of the lead vehicle is low or does not comply with national standards when the ego vehicle is following the lead vehicle.
- The vehicle encounters another half-covered incoming vehicle in case of sharp turns/mountain roads/low-lying ground.
- The vehicle is driven on a slope or bumpy road.
- The vehicle is driving in a heavily rainy, snowy or foggy day.
- The IFC is damaged or its power supply is cut off.

⚠ WARNING

The IHC is a driver assistance function, which can help you select the lighting way best suitable for the actual condition. The driver shall always be responsible for manual switching between the high and low beams under the traffic and environmental conditions.

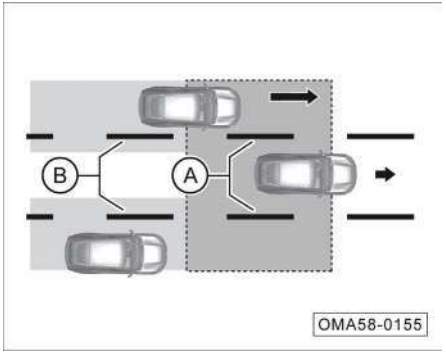
- **The IHC may not be able to correctly identify all driving environments and cannot work normally in some environments.**
- **If the IFC is blocked by dirt, stickers, snow, etc., the IHC may not work.**

⚠ WARNING

- **If the vehicle lighting system is changed (for example, the headlamp is modified), the IHC performance may be degraded or the function may not be available.**
- **In the case of oncoming non-motor vehicles such as bicycles and electric bicycles or pedestrians, the IHC system shall be turned off in time to prevent dazzling.**

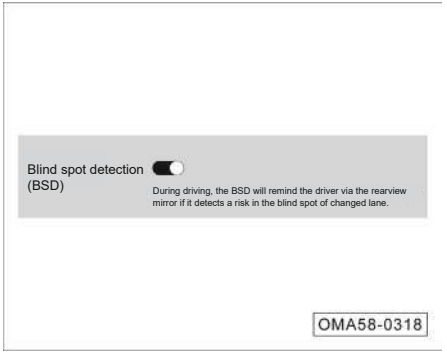
6.4.8 Blind spot detection (BSD) system*

The BSD system detects the vehicles in the blind spot and the area behind the blind spot via the sensor installed at the rear of the vehicle. If it detects that another vehicle is approaching quickly, the BSD will alert the driver through the visual signal on the exterior rearview mirrors.



- A: Blind spot in the adjacent lane.
- B: Area behind the blind spot.

Activation and deactivation



When the ENGINE START/STOP button is in the “ON” position, enter the “Settings → ADiGO Intelligent Driving → ADiGO Active Safety → BSD” interface on the AV system display, press the soft key on the right side of “BSD” to activate or deactivate this function.

If the BSD is activated normally, the indicator lamp on the exterior rearview mirror will light up temporarily, and the indicator lamp on the instrument cluster will turn green. If a fault is detected in the BSD, the indicator lamp on the instrument cluster will turn yellow, and a fault indication will be shown on the instrument cluster. If the BSD is switched off, the indicator lamp will go out.

NOTE

The on/off state and selected mode of this system can be memorized. After the engine is started, the on/off state and mode will be the same as those when the engine is shut down last time.

Alert mode

The BSD alerts the driver via the yellow indicator lamp on the exterior rearview mirror, whose illuminance can be adjusted automatically according to the ambient light.

When the blind spot risk exists, the turn signal indicator lamp on the corresponding side will be turned on, accompanied by audible alarm.

NOTE

When the vehicle is started or the system is activated, the indicator lamp on the exterior rearview mirror will light up for about 2s, indicating that the function is activated normally.

Working conditions

Under the following three conditions during driving (vehicle speed >15km/h):

- Other vehicles enter the blind spot from the rear or side.
- Another vehicle approaches this vehicle quickly from the rear of the adjacent lane.
- Other vehicles enter the blind spot from the front and these vehicles stay in the blind spot longer than a certain period of time.

In these three cases, the system will give an alarm, and the rearview mirror indicator lamp on the corresponding side will light up. If the turn signal lamp on the same side is turned on at this time, the indicator lamp will flash to remind you of the risk of lane change.

NOTE

When the vehicle overtakes another vehicle ahead at a very high speed, the alarm will not be activated for the vehicle in the blind spot as the time that the vehicle stays in the blind spot is too short.

NOTE

When there is no vehicle in the blind spot, the system may also send a false alarm in the following situations:

- The vehicle is near road guardrails.
- The vehicle is near a highway concrete wall.
- The vehicle is in a building area.
- The vehicle is passing a sharp turn around a building.
- The vehicle is near shrubs and trees.

The false alarm, if triggered, just lasts for a short time and can be corrected automatically.

Radar sensor

The BSD radar sensors are installed as shown above.

NOTE

Make sure that the area around the rear bumper sensor is not covered by ice, snow or other objects.

NOTE

If any sensor is interfered, the performance of the system will be degraded, and the instrument cluster will display “BSD sensor blocked” and issue an alarm. The system will automatically return to normal if any of the following conditions is met:

- Two vehicles are detected on the left and right.
- Turn off the vehicle and restart it.

If the sensor is still interfered with after the vehicle has been restarted, the reminder will be given again and an alarm will be issued. If a prompt “Check side assist system” is displayed on the instrument cluster, it indicates that the system is faulty, so please go to the GAC Motor authorized shop for inspection in time.

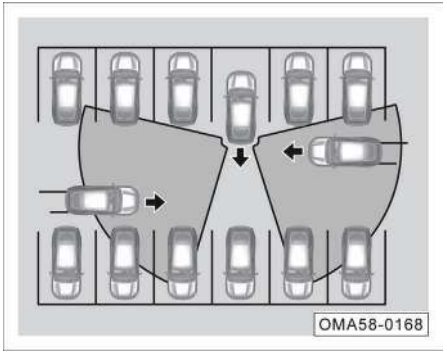
WARNING

The BSD is only a driver assistance system, and cannot replace the driver to observe the external traffic conditions or to make judgments. During driving, the driver still need to pay attention to the vehicles behind at all times and drive carefully.

In some specific situations, the BSD system may not function properly or be inoperative. Example:

- **The detection target is too small, such as bicycle, segway, etc.**
- **The target is stationary.**
- **The weather is too severe (such as rain and snow).**
- **The vehicle is on curves, ramps and other roads.**

6.4.9 Rear crossing traffic alert (RCTA)*



The rear crossing traffic alert (RCTA) system detects blind spots on both sides of the rear of the vehicle via the BSD sensor installed at the rear of vehicle. When the vehicle is reversing, when an approaching vehicle is detected, the system will warn the driver through the visual signal of exterior rearview mirror, instrument alarm sound and the panoramic image.

⚠ WARNING

- **The RCTA is c a driving assistance system, and cannot replace the driver to observe the external traffic conditions or to make judgments.**
- **To ensure safety, the driver must not completely rely on the BSD radar, and the driver must maintain the correct use of the interior rearview mirror and the exterior rearview mirrors on both sides.**

Activation and deactivation

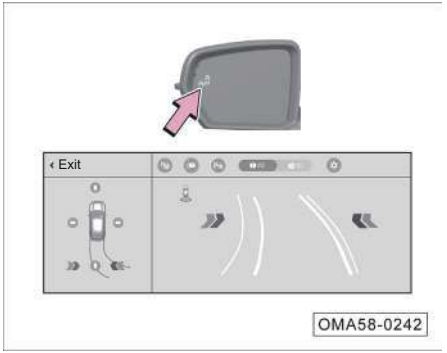
When the ENGINE START/STOP button is in the “ON” position, enter the “Settings → ADIGO Intelligent Driving → ADIGO Active Safety → RCTA” interface on the AV system display, press the soft key on the right side of “RCTA” to activate or deactivate this function.

When the engine is started or the system is activated, the indicator lamp on the rearview mirror will stay on for 2s, indicating that the system is switched on normally.

i NOTE

The system has the button state memory function, so when the vehicle is restarted, the button will be in the state before last power-off.

Alert mode



- Visual alarm: The driver is alerted via the yellow indicator lamp on the exterior rearview mirror and the flashing red arrow on the side of the oncoming vehicle in the panoramic image. The indicator lamp can automatically adjust the brightness according to the external lighting conditions.
- Audible alarm: there will be an audible alarm as a supplementary reminder at the same time.

Working conditions

The following conditions shall be met for function activation:

- The vehicle is in reverse and in R gear.
- The vehicle speed is less than 10 km/h.
- The function switch is turned on and the function has no fault.

When the radar detects that the vehicle is reversing and another vehicle is approaching to the vehicle on either side from the rear and may collide with the vehicle, the RCTA will alerts the driver in the following way:

- The indicator lamp on the exterior rearview mirror on the side with a risk of collision flashes.
- In the panoramic image, a red light bar flashes on the dangerous side of the rear of the vehicle.
- The system issues an audible alarm as a supplement.

i NOTE

- The rear crossing traffic alert is only an assist function and the driver should always be alert and maintain control of the vehicle.
- This function cannot detect objects behind other vehicles or obstacles.
- This function may be triggered by mistake, and the driver should ensure that the goods on the vehicle will not be affected.
- If the audible alarm of the function is activated, the reverse radar alarm will be suppressed. When the alarm is over, the reverse radar alarm will be restored.
- In some cases, this function cannot give an alarm in time.

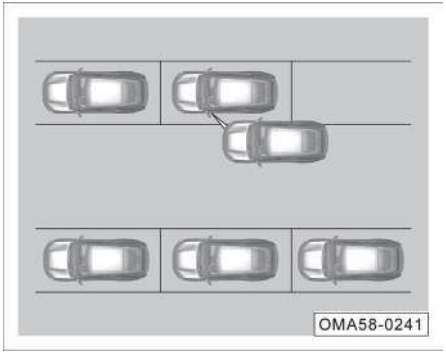
i NOTE

When there is no vehicle in the detection area, the system may also give an alarm, and the false alarm will be given in the following situations:

- The vehicle is near road guardrails.
- The vehicle is near a highway concrete wall.
- The vehicle is in a building area.
- The vehicle is near shrubs and trees.
- When parking, the vehicle is too close to the vehicle behind.
- There is a larger vehicle behind the vehicle.

The false alarm, if triggered, just lasts for a short time and can be corrected automatically.

6.4.10 Door open warning (DOW)*



The DOW uses the BSD sensor installed at the rear of the vehicle to detect the adjacent lane during parking. When the system detects that another vehicle/two-wheeler/pedestrian is approaching quickly and there is a risk of collision if the door is opened, it will alert the driver via the visible signal on the exterior rearview mirror and the audible alarm.

⚠ WARNING

- **The DOW is a driver assistance system, and cannot replace the driver to observe the external traffic conditions or to make judgments.**
- **To ensure safety, the driver must not completely rely on the BSD radar, and the driver must maintain the correct use of the interior rearview mirror and the exterior rearview mirrors on both sides.**

Activation and deactivation

When the ENGINE START/STOP button is in the “ON” position, enter the “Settings → ADiGO Intelligent Driving → ADiGO Active Safety → DOW” interface on the AV system display, and press the soft key on the right side of “DOW” to activate or deactivate this function.

i NOTE

The system has the button state memory function, so when the vehicle is restarted, the system will be in the state before last power-off.

Alert mode

The DOW alerts the driver via the yellow indicator lamp on the exterior rearview mirror. The indicator lamp can automatically adjust the brightness according to the external lighting conditions.

Working conditions

The following conditions shall be met for function activation:

- The vehicle is in a parked state.
- The ENGINE START/STOP button is in the “ON” position, or is switched from “ON” to “ACC” or “OFF” position within 3 min.
- The function switch is turned on and the function has no fault.

When the radar detects a vehicle behind in the adjacent lane and there is a risk of collision if the driver opens the door, the yellow warning lamp on the exterior rearview mirror on the side with a risk of collision will flash.

NOTE

- The DOW is only a driver assistance system, and cannot replace the driver’s monitoring on the traffic conditions, and the driver should always be alert to the surrounding environment.
- This function cannot detect objects behind other vehicles or obstacles.
- In some cases, the function may be triggered by mistake.
- In some cases, this function cannot give an alarm in time.

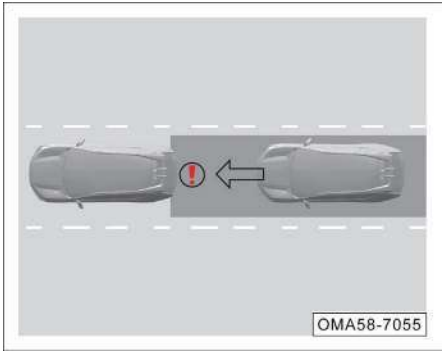
NOTE

The system may also give an alarm when there is no vehicle in the detection area. Conditions in which a false alarm may be issued:

- Road guardrails
- Highway concrete wall
- Building areas
- Shrubs and trees
- Too close to the left and right vehicles when parking.
- There is a larger vehicle behind the ego vehicle.

The false alarm, if triggered, just lasts for a short time and can be corrected automatically.

6.4.11 Rear approach alert system*



The rear approach alert function monitors the target directly behind the vehicle in real time through the BSD sensor installed at the rear of the vehicle. When the driver drives the vehicle normally on the road and there is a target rapidly approaching in this lane behind, the system will send out an alarm message and a rear-end collision warning signal to the vehicle behind.

CAUTION

The rear approach alert function is only for assist and cannot replace the driver to monitor the external traffic conditions. The driver should always be alert to the surrounding environment.

Activation and deactivation

When the START/STOP button is in the “ON” position, enter the “Settings → ADiGO Active Safety Assist→ Rear Approach Alert” interface of the AV system, and turn on or off the rear approach alert function.

NOTE

The system has the button state memory function, so when the vehicle is restarted, the system will be in the state before last shutdown.

Alert mode

The rear approach alert function automatically activates and quickly flashes the hazard warning lamps to alert the rapidly approaching vehicles behind.

Working conditions

The following conditions shall be met for function activation:

- The vehicle is started and the gearshift lever is in a position other than R.
- The function switch is turned on and the function has no fault.

When the radar detects that there is a vehicle approaching at a high speed in this lane behind, the function will be activated to alert the driver in the vehicle behind to reduce the risk of rear-end collision.

CAUTION

- This function cannot detect objects behind another vehicle or obstacle.
- When the vehicle behind is moving too fast, this function may not issue an alarm in time.
- This function does not trigger an alarm when the driver has turned on the hazard warning lamp switch.

False alarm

When there is no vehicle in the detection area, the system may issue a false alarm when:

- The vehicle is in a parking lot.
- The vehicle is on uneven roads.
- The vehicle is in a building area.
- The vehicle is near shrubs and trees.

CAUTION

The false alarm, if triggered, just lasts for a short time and can be corrected automatically.

6.4.12 Radar and IFC sensor

MMW radar sensor

The MMW radar sensor is installed in the middle of the front bumper grille to monitor the traffic conditions and detect the front vehicles at a certain distance from the vehicle.

The radar sensor must be adjusted and calibrated under the following conditions:

- The mounting bracket of the MMW radar sensor has been removed and installed.
- The MMW radar sensor is removed and then refitted.
- The toe or rear wheel camber is adjusted during the four-wheel alignment.
- The vehicle has a collision.

NOTE

- Special tools are required in adjustment and calibration of the MMW radar sensor. If adjustment and calibration of a radar is required, please go to the GAC Motor authorized shop for relevant operation.
- When the MMW radar sensor fails or is misadjusted, it may affect the ACC, ICA or FCM.

Special instructions on MMW radar sensor

The MMW radar sensor is installed in the front of the vehicle. No obstacles shall be present within the detection range of the MMW radar sensor. Do not install obstacles such as license plate frame when installing the front license plate. Otherwise, the detection performance of the MMW radar sensor will be affected, causing the ACC, ICA, and FCM to be unable to function.

CAUTION

- If the MMW radar sensor is dirty, blocked by the license plate frame, or covered by any foreign matter such as heavy rain, ice, snow, mud, the related functions of the radar sensor may not work and the instrument cluster will give disable/fault indication for these functions. To restore these functions to normal, clean the dirt and/or foreign matters.
- When there is a strong reflection on the MMW radar ultrasonic wave (e. g. in parking lot), the related functions of the MMW radar sensor may be affected.
- It is prohibited to paste or add stickers, driving assistant lights, license plate frames or other similar objects in front of and around the MMW radar; otherwise it may affect the relevant functions of the MMW radar sensor.
- It is recommended that the snow on the sensor is removed with a brush and the ice on the surface is removed with an insoluble de-icer spray.

CAUTION

- Maintenance of the front body of the vehicle may cause change in the radar sensor direction and affect related functions of MMW radar (ACC/ICA/FCM). Therefore, please go to the GAC Motor authorized shop for service in time.
- If the MMW radar sensor is damaged or the direction changes, please turn off MMW radar related functions (ACC/ICA/FCM, etc.) and go to the GAC Motor authorized shop in time to recalibrate the MMW radar sensor.
- The direction of the MMW radar sensor may change due to vibration, for example, the part near the front bumper radar collides with the roadside/flower bed. Change of the direction of the sensor may affect the performance of the functions dependent on the radar or even cause abnormal deactivation of these functions.

Intelligent front camera (IFC)

An IFC is installed on the upper part of the front windshield to detect the surrounding environment. It can identify pedestrians not blocked up to 80m away from the vehicle (in case that the environmental factors such as lighting are ideal) with a body height of not less than 0.8m. The IFC sensor must be calibrated under the following conditions:

- The front windshield or camera bracket is removed and replaced.
- The IFC sensor is removed and replaced.

NOTE

If the IFC fails, the ACC, ICA, LDW, FCW and IHC will fail as well.

NOTE

- The calibration of the IFC sensor requires the use of special tools and equipment. If it is necessary to calibrate the IFC sensor, it is recommended to go to the GAC Motor authorized shop for related work.
- When the IFC sensor fails or is maladjusted or blocked, the normal use of the ACC, FCM, LDW, ICA, IHC and other functions may be affected.

CAUTION

Poor lighting conditions, night, backlight, heavy rain, mist, ice, snow or sludge may affect the IFC, leading to interruption/ performance degradation and even failure of FCW, ACC, ICA, AEB, LDW and IHC. In this case, the instrument cluster will display alarm messages relevant to intelligent driving assistance such as “The MRR is blocked”, “The sight of the front camera is blocked”, “Please check the LDW”, “Please check the ACC”, “Please check the FCW”, etc.

CAUTION

Obstacles such as dust, sediment, mist, ice, snow, or sludge on the windshield glass may block the sight of the IFC. If this occurs, the systems such as LDW, FCM, ACC, ICA and IHC will be disabled. In this case, please wipe the area around the IFC on the windshield or turn the A/C to the defrost mode. Thereafter, the system will return to normal.

CAUTION

- If the IFC interference factor disappears, the PDS function will work normally again.
- Low light conditions at sunset or night may affect the functioning of PDS. It is prohibited to block the sight around the IFC with stickers or opaque objects; otherwise, the pedestrian detection function may not work properly.
- Please confirm whether there is any obstruction in the IFC area before driving the vehicle.
- Keep a clear view of the IFC sensor on the front windshield.

6.4.13 Tire pressure monitoring system (TPMS)

The TPMS monitors the pressure and temperature of the tire via the tire pressure sensor mounted on the rim and sends the tire information to the receiver (BCM) via a wireless transmitter. Then, the receiver makes decoding and analysis to the wireless signal received, and then the information on tire pressure and temperature are transmitted to the instrument cluster for display. In case of tire anomalies such as low pressure, high pressure, rapid air leakage and high temperature, the receiver issues warning signals to instrument cluster, which shows various warning messages.

If the vehicle has not been used for more than seven days or the battery has been disconnected, when the Engine START/STOP button is in “ON” position, the tire pressure and temperature will be displayed as “---” on the instrument cluster, and after the vehicle speed reaches above 25km/h for several minutes, the real-time tire pressure and temperature will be displayed on the instrument cluster.

Alarm description

- If the tire pressure is higher than 330kPa, the TPMS indicator lamp comes on, and the alarm message on the instrument display indicates that the tire pressure is high; when the tire pressure drops below than 300kPa, the fault is eliminated and the TPMS indicator lamp goes out.
- If the tire pressure is lower than 75% of the normal set value, the TPMS indicator lamp comes on and the alarm message on the instrument display indicates that the tire pressure is low; when the tire pressure (cold tire pressure) rises to the normal set value, the fault is eliminated and the TPMS indicator lamp goes out.
- If the tire pressure keeps dropping at a rate more than 30kPa/min, the TPMS indicator lamp comes on and the alarm message on the instrument display indicates that the tire has air leakage; when the vehicle is powered on again, the fault is eliminated and the TPMS indicator lamp goes out.
- If the tire temperature is higher than 85°C, the TPMS indicator lamp comes on, and a text alarm on the instrument cluster indicates that the tire temperature is high; when the tire temperature drops to 80°C, the fault is eliminated and the TPMS indicator lamp goes out.

NOTE

If a spare tire or a new tire is used, because the tire pressure sensor is missing, the low tire pressure alarm does not disappear while you continue to drive. Please do not interpret that as abnormal tire pressure.

CAUTION

After replacing the tire pressure sensor or rotating the tires, you do not need to go to the GAC Motor authorized shop to for re-learning and calibration, and the TPMS can automatically complete the learning and calibration in the next few driving cycles, provided that the tire pressure sensor is correctly installed for the model.

6.4.14 Head-up display (HUD)*

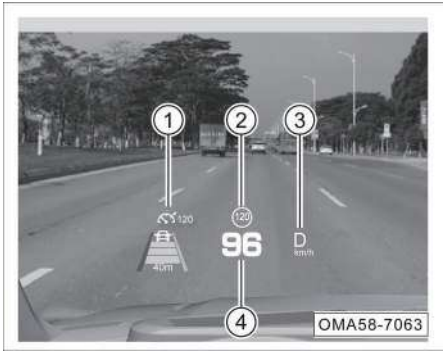
HUD instructions

The head-up display or heads-up display is referred to as HUD for short. The HUD image is projected onto the front windshield through the HUD device in the instrument cluster. If the HUD image is too bright or too high in your field of view, you may need more time to see the desired information, so it is necessary to ensure that the HUD image with suitable brightness is placed in your comfortable field of view.

The HUD image will automatically darken or brighten to compensate for changes in outside light. The brightness of the HUD image can be adjusted manually if necessary. Depending on the angle and position between the sunlight and the HUD, the HUD image will temporarily brighten, which is normal. Polarized sunglasses may make it harder to see the HUD image.

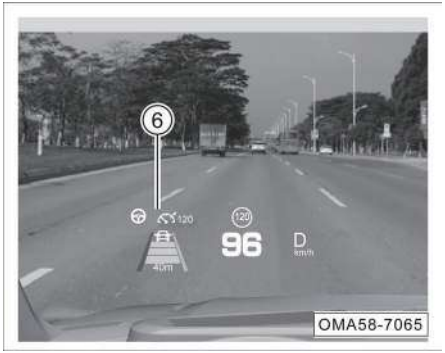
If the HUD image rotates clockwise or counterclockwise, the HUD tilt angle can be manually adjusted to the HUD angle of alignment. There is no need for further adjustment after successful adjustment.

Interface display

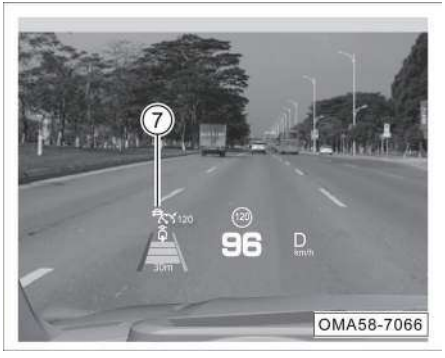


① ADAS status
② TSR function
③ Gear
④ Vehicle speed

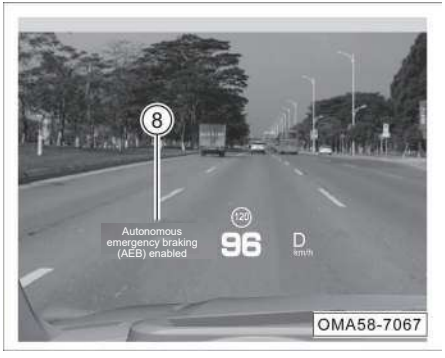
⑤ Red vehicle icon: FCW triggered



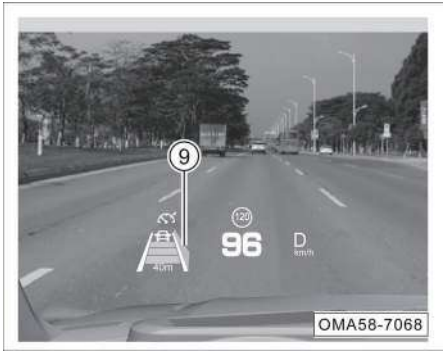
⑥ ICA



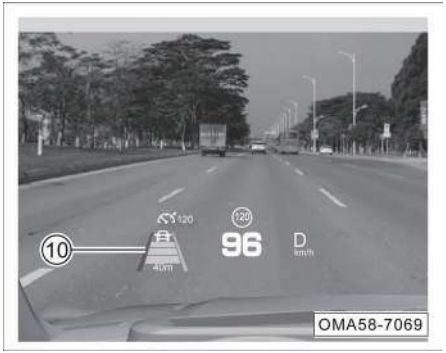
⑦ ACC



⑧ AEB



⑨ Red warning belt: BSD triggered

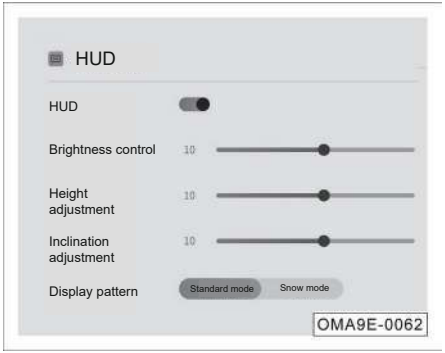


⑩ Red line: LDW triggered

NOTE

The HUD interface is for reference only, so please refer to the actual vehicle.

HUD settings



Enter the “Settings → Screen Settings → Head-Up Display” interface on the AV system display, press the soft key on the right side of the “Head-Up Display” to activate or deactivate this function, and make corresponding settings.

NOTE

- For your safety, it is recommended to make HUD settings in the parking state.
- During setting of the adjustment function, the corresponding interface is displayed on the HUD screen synchronously, and disappears after 3s if no operation is performed.

Maintenance of HUD

- Clean the inside of the front windshield to remove dirt or film that may reduce the brightness or sharpness of the HUD image.
- Clean the top curved surface of the HUD with a soft cloth wet with glass cleaner, wipe it gently, and let it dry.

NOTE

The front windshield of the vehicle equipped with HUD is specially made. If you need to replace the front windshield, you need to replace it with the corresponding type. Otherwise, there will be problems such as HUD image ghosting.

Troubleshooting

Check that

- The HUD is not covered by any object.
- The brightness setting of the HUD is proper.
- The HUD is adjusted to a suitable height.
- Polarized sunglasses are not worn.
- The front windshield and HUD are not cleaned.

6.5 Parking assist system (PAS)

6.5.1 Reversing parking aid (RPA)

The RPA measures the distance between the vehicle and an obstacle via the radar sensors sending and receiving ultrasonic waves reflected from the obstacle.

Activation and deactivation

- When the vehicle runs at a speed not higher than 10km/h with parking brake released and gearshift lever set to “R” position, the RPA will start working.
- When the vehicle runs at a speed higher than 12km/h or the gearshift lever is moved out of the “R” position, if the EPB is applied, the RPA will stop working.

Dynamic view

The dynamic view on the display shows the distance between the ego vehicle and the obstacle. In the view, the outermost sector is green, the middle and innermost sectors gradually turn to yellow, orange and red. When the vehicle is getting closer and closer to an obstacle detected, the color sections will gradually change from the outermost.

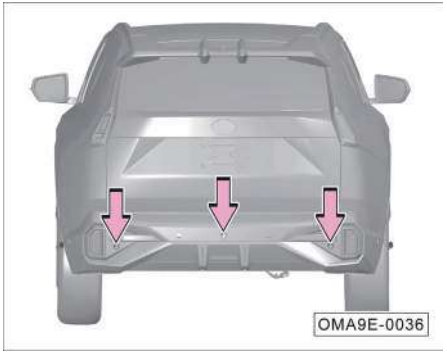
The change of the dynamic view is synchronized with that of the distance audible alarm.

Distance to obstacle			Alarm tone
Rear left sensor	Rear right sensor	Rear middle sensor	
90~120cm	90~120 cm	90~150cm	No alarm tone
60~90 cm	60~90 cm	60~90 cm	Slow and intermittent audible alarm
30~60 cm	30~60 cm	30~60 cm	Rapid intermittent audible alarm
< 30 cm	< 30 cm	< 30 cm	Continuous audible alarm

Distance audible alarm

The audible alarm changes with the distance between the obstacle and the rear bumper, and the color displayed on the AV system display also changes accordingly. If the vehicle is approaching to an obstacle, the system will sound an audible alarm. The closer the vehicle is to the obstacle, the shorter the audible alarm will be. When the vehicle is very close to the obstacle, the system will sound a continuous audible alarm. If the vehicle goes on approaching the obstacle in this case, the system cannot detect the obstacle any more.

Distribution of RPA sensors



The RPA sensors are installed on the rear bumper cover.

CAUTION

- Always keep the surfaces of the RPA sensors clean and never cover the RPA sensor.
- To ensure the function of the radar sensor, it should be kept clean and free from ice.
- When cleaning the radar sensor surface, use a soft wet cloth to avoid scratching the surface.

⚠ WARNING

- **The RPA cannot replace the driver's observation of the surrounding environment. The driver should concentrate and reverse the vehicle safely according to the actual situation.**
- **The RPA sensor has a blind spot when detecting obstacles. When reversing, the driver must pay attention to observing to avoid accidents.**
- **When reversing in a narrow place or uphill, the RPA sensor may not detect railings, trees, or slope surfaces, which is normal.**
- **When the reversing speed is fast, the detection accuracy of the RPA sensor will decrease. It is recommended that the speed should not exceed 10 km/h. When the PAS sends the continuous audible alarms, it indicates that the vehicle is extremely close to the detected obstacle, and reversing shall be stopped immediately to prevent an accident.**

⚠ WARNING

- **When cleaning the radar sensor with the high-pressure cleaner, it shall be short-time and gentle, and the distance between the nozzle and the sensor shall be at least 30 cm.**
- **If water drops are on the surface of the RPA sensors, the sensitivity of the sensors will reduce. Wiping off them can restore the sensitivity of the sensors.**
- **The surface of some subjects may not reflect the signal from the radar sensor, so the radar sensor cannot detect such subjects or people wearing such clothing.**
- **Noise sources outside the vehicle may interfere with the radar sensor, preventing it from detecting any target.**
- **The radar sensor is a precision component. Do not disassemble or repair it without permission. Otherwise, GAC will not assume any responsibility for the damage arising therefrom.**

6.5.2 Reverse image system*

The reverse image system can cover the video at an wide angle up to 130° and display a wide-range image behind the vehicle on the AV system display to allow the driver to know various complex road conditions behind the vehicle and improve the safety of reversing.

Activation and deactivation

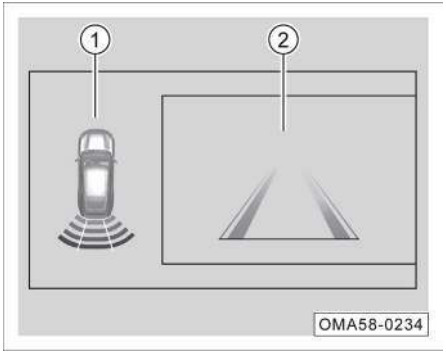
When the vehicle power is in the “ON” position and the gear is shifted to the “R” position, the reverse image system will automatically start to work, and the AV system display will start to display the rear image and the distance reference lines.

When the gear is shifted out of “R” position, the reverse image system will exit and the AV system will exit the reverse image display.

⚠ WARNING

The reverse image system cannot take the place of the driver’s observation of the surrounding environment. The driver shall focus on safe reversing and position adjustment according to the practical conditions.

Dynamic trajectory



The display shows the wheel trajectory and the body driving trajectory:

① RPA display area

② Reverse image display area

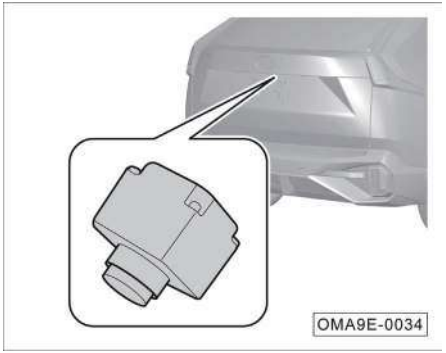
CAUTION

The above trajectory is the reference distance obtained by testing on flat ground and is only used as a reference for judging visual distance. In case of driving on a slope, the above distances cannot be used as accurate references.

NOTE

- The longitudinal lines on both sides of the distance reference line can be used as the reference line for judging the required parking space size when reversing or parking.
- The distanced reference lines can be adjusted constantly as the steering wheel is turned.

CCD



CCD is installed next to the license plate lamp.

WARNING

- **The CCD have blind spots, for example, it may not detect young children or smal pets. Therefore, the driver is required to pay special attention to the young children or smal pets around the vehicle during reversing.**
- **The CCD may also not be able to recognize the vertical objects at higher position, such as wall flange.**

CAUTION

- Always keep the CCD surface clean. Clean the CCD surface with a piece of soft wet cloth to avoid scratching it.
- Do not wash the CCD with high-pressure cleaner for a long time, and keep a distance of at least 30 cm from the CCD during cleaning.
- Do not cover the CCD.

6.5.3 Around view monitor (AVM)*

The SVM, through real-time image, can provide the driver with information on the surrounding environment of the vehicle to reduce blind spots during driving. In addition, it can take the parameters such as steering wheel angle and vehicle dimensions into consideration to predict the vehicle's motion trajectory as well as superimpose the predicted track on the panoramic image to provide the driver with full information on the vehicle's direction of traveling, helping the driver to determine whether reversing is safe.

The AVM consists of four cameras, A/V system display screen and "Parking View" APP running on the A/V system. The AVM collects the images of left, right, front and rear of the vehicle and integrates them into a 360° bird's-eye view of the surrounding environment through image processing algorithm, which is displayed on the AV system display.

Activation and deactivation

1. With the START/STOP button in the "ON" position, the AVM can be activated/deactivated via the gearshift lever:

- When the gear is shifted to "R" position, the AVM will automatically turn on the full-screen 2D rear view.
- When the gear is shifted out of "R" position and the driver has no relevant operation, the AVM will automatically exit after about 30 s by default.

2. With the START/STOP button in the "ON" position, the AVM can be activated/deactivated by pressing the button:

- Click the ⊞ icon in the menu bar of the AV system to enter the application menu interface, click the "AVM" icon to activate the AVM, and click the "×" soft key in the AVM interface to exit the AVM.

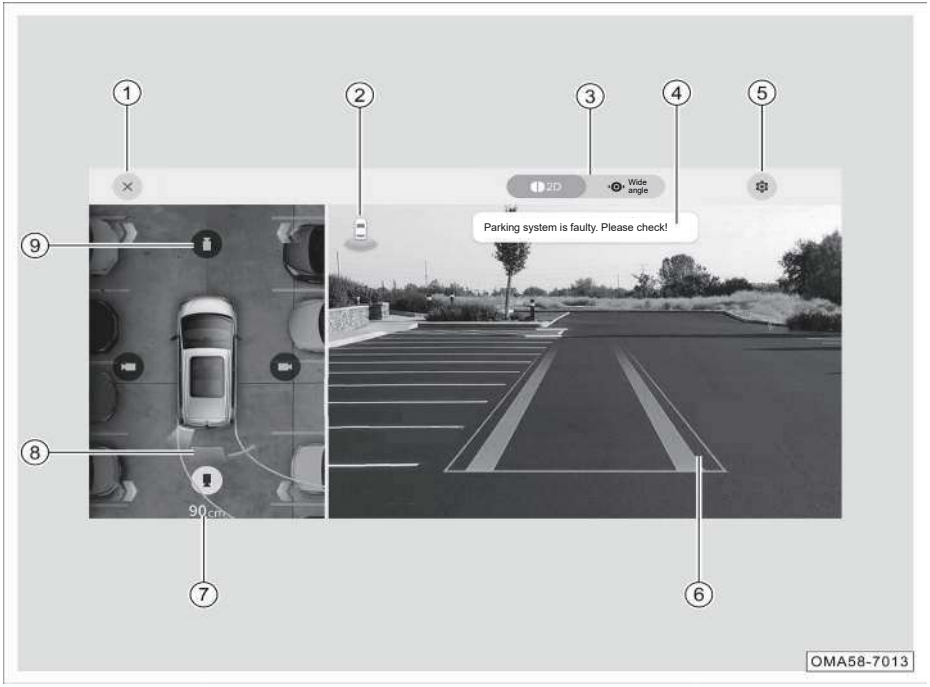
3. The AVM can be activated/deactivated by pulling the "turn signal combination lever". When the ENGINE START/STOP button is set to "ON" position:

- Pull the "turn signal combination lever" to the "left turn" or "right turn" position to turn on the AVM; pull the "turn signal combination lever" to the neutral position to make the AVM automatically exit.
- This function can be set "On" or "Off" in the "Settings" item of the panoramic view.

4. The AVM can be activated/deactivated automatically when "the RPA sensors detect an obstacle". When the ENGINE START/STOP button is set to "ON" position:

- When the RPA sensors detect an obstacle, the AVM automatically turns on; when the detected obstacle disappears, the AVM automatically exits.
- This function can be set "On" or "Off" in the "Settings" item of the panoramic view ".
- This function is only applicable to models with front radar configuration.

Interface description



① Exit
② Current view direction
③ 2D/wide angle view switching soft key
④ Pop-up message window
⑤ Setting
⑥ Trajectory
⑦ Radar distance display
⑧ Radar sensing area
⑨ View direction switching soft key

NOTE

The AVM interface and its function buttons will vary depending on the vehicle configurations. Please refer to the actual vehicle.

Settings of AVM

1. Trajectory

- The trajectory is displayed in the top view and 2D view after the trajectory switch is turned on, and the trajectory is not displayed in the top view and 2D view after the trajectory switch is turned off.
- This function can be set to “on” or “off” through the “Settings” options on the AVM interface.

2. Exit after gearshift lever in P position

- When the switch for exit after setting gearshift lever in P position is set as “immediate”, the AVM interface will be exited immediately after the gearshift lever is set to the P position; when the switch for exit after setting gearshift lever in P position is set as “after 30s”, the AVM interface will be exited after the gearshift lever is set to the P position for 30s.
- This function can be set to “on” or “off” through the “Settings” options on the AVM interface (there will be differences under multiple AVM display conditions, subject to the actual vehicle, so please refer to the actual vehicle).

3. AVM activation via turn signal lamp

- When the turn signal lamp-panoramic view activation switch is turned on, if the vehicle speed is within 20 km/h and the left/right turn signal lamp switch is turned on, the panoramic 2D left/right view will be displayed, and if the left/right turn signal lamp switch returns, the panoramic view will exit.
- This function can be set to “on” or “off” through the “Settings” options on the AVM interface.

NOTE

- When the AVM is turned on, the A/V system starts to display images taken around the vehicle, with some guide lines and radar prompts.
- If the forward speed is greater than 20km/h, the system will be automatically deactivated.
- The system will automatically switch off when the vehicle is in non-”R”gear and the system is activated for more than 30 seconds.
- If the AV system is not completely activated, the system cannot function properly.

NOTE

- When gearshift lever is in the “R” gear, the image display defaults to single 2D rear view.
- When the gearshift lever is in a position other than “R”, a single 2D front view is displayed in the image display area by default.
- The AVM has the memory function of 2D view display mode (except for the default 2D rear view display in the R position) other than the wide-angle view display mode. If the last operation is performed in the 2D view display mode before deactivation of the AVM, the 2D view display mode will be adopted by default when the AVM is activated next time.
- The rear crossing traffic alert function is only available for vehicles equipped with BSD.
- The message pop-up window is only displayed when there is a message, and not displayed at other times.

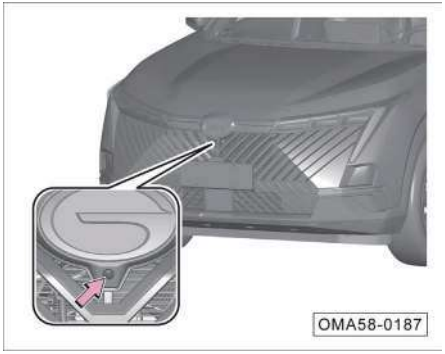
NOTE

- The parking icon will flash after the parking space is detected in the background of the panoramic view, and you can click the icon to switch to the parking interface *.
- After the radar audible alarm switch is turned on, the radar audible alarm will be issued; after the radar audible alarm switch is turned off, the radar audible alarm will not be issued.
- Different camera views can be found on the wide angle interface, including “front wide angle”, “rear wide angle”, “front wheel” and “rear wheel”.
- The interface of the AVM display differs depending on the vehicle configurations. Please refer to the actual vehicle.

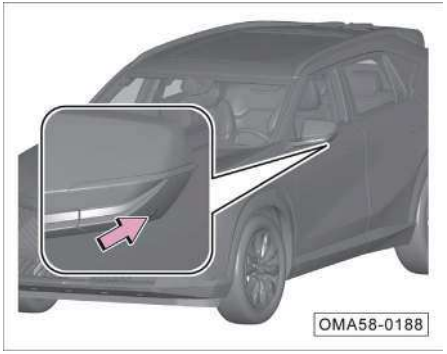
NOTE

- When the left turn signal lamps are turned on, the image display area is switched to the single 2D left view; when the right turn signal lamps are turned on, the image display area is switched to the single 2D right view.
- The user can manually switch the view via the “view” soft key, and the image display shows the corresponding view.

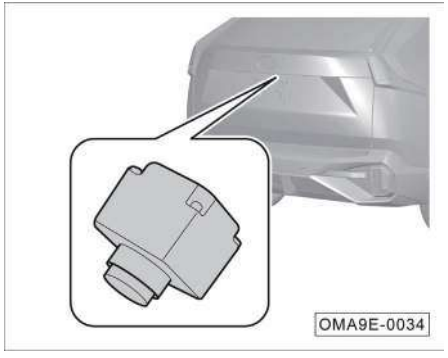
Layout of cameras



The front camera is installed under the front logo.



The left/right camera is installed on the left/right exterior rearview mirror respectively.



CCD is installed next to the license plate lamp.

NOTE

To ensure the normal operation of the camera:

- Please keep the camera surface clean and free of ice, snow, accumulated water, dust and other foreign matters.
- When foreign matters are found on the surface of the camera, remove them through wiping with a soft cloth or cleaning with water (at low pressure), and be sure to keep the nozzle at least 30cm away from the camera during cleaning.
- Do not use high-pressure cleaner or abrasive or sharp objects to clean the camera.

CAUTION

Functional limitations:

- When the camera fails to work normally, the function that relies on the camera to provide identification information will be limited. The identification range of the camera is limited, and it is impossible to identify the target beyond the identification limit.
- When the external environment is poor, resulting in unclear view of the camera, it will affect the recognition ability of the camera.

CAUTION

The following conditions can cause the camera failure to identify the target, delay in identification, or incorrect identification:

- Poor lighting conditions (dimness and low light) or poor visibility (caused by heavy rain, snow, dense fog, etc.).
- Camera facing light source direction or insufficient light intensity.
- Sharp changes in light (such as entering and exiting tunnels).
- Weather conditions (heavy rain, snow, fog, extremely hot or extremely cold temperature).
- Camera surface covered with ice, snow, frost, rain, fog, accumulated water, dust and other foreign matters.
- Vehicle bumps or shakes due to uneven road.
- Camera view blocked.

The above examples, warnings, and limitations do not cover all the conditions that affect the normal operation of the camera sensor.

⚠ WARNING

- **The camera is only a driver assistance system, and cannot work normally under all driving, traffic, weather and road conditions. When the vehicle is in a complex or poor environment, drive carefully and always be responsible for the driving safety.**
- **No license plate frame or other objects can be installed on the front and rear license plates to avoid interference with sensors such as camera and radar.**
- **Unauthorized replacement, modification and addition of the camera are prohibited, and only the original camera or the camera approved by GAC MOTOR CO.,LTD. can be used. Otherwise, the relevant functions may not be used normally, and the GAC MOTOR CO.,LTD. will not bear any responsibility for the resulting direct or indirect losses.**

6.6 Acoustic vehicle alerting system (AVAS)

The AVAS makes other road users, including pedestrians, bicyclists, etc., especially the blind and visually impaired, more likely to perceive the approaching vehicles, so as to avoid accidents.

When the vehicle is being driven with engine stopped, a warning sound that changes with the vehicle speed will be given to warn passer-bys that the vehicle is approaching. When the vehicle speed exceeds approximately 25km/h, the sound will stop.

CAUTION

The AVAS is only a driver assistance system, and cannot replace the driver to make judgments. The driver needs to check the surrounding environment and does not rely solely on the warning of this AVAS to avoid accidents.

Working conditions for AVAS

The vehicle has been started (when the vehicle is in battery electric mode and the engine has not been started), the instrument cluster displays the “READY” indicator lamp, and the AVAS sounds according to the gear position and vehicle speed control:

- When the gearshift lever is in “P” position, the AVAS does not sound.
- When the gearshift lever is in “D” position, and the vehicle speed is higher than 0km/h and lower than 25km/h, the AVAS will change with the vehicle speed and sound a driving warning; when the vehicle speed is higher than 25km/h, the AVAS stops sounding.
- When the gearshift lever is in “R” position, the AVAS will sound a reversing warning.

6.7 Electric power steering (EPS)

The Electric Power Steering (EPS) is a power steering system which directly relies on the motor to provide auxiliary torque. It is mainly composed of integrated torque and steering angle sensor, motor, electronic control unit (ECU) and deceleration mechanism.

The ECU controls the motor assist torque output in real time by detecting the driver's torque input, vehicle speed, engine speed and other vehicle status signals, providing the best steering assistance, ensuring the vehicle's low-speed steering agility and high-speed steering stability, and improving driving comfort and vehicle safety.

EPS indicator lamp

With the ENGINE START/STOP button in the "ON" position, the indicator lamp lights up for a few seconds and then goes out after the system completes the self-test, indicating that the EPS works normally.

If the indicator lamp does not go out after the vehicle is started or running, it indicates that the EPS is faulty, and in the meanwhile, an alarm message indicating "Please check EPS" will be displayed on the instrument cluster display. In this case, it is required to park the vehicle in a safe place, and shut down and restart the vehicle. If the indicator lamp does not go out or comes on again during driving, stop driving, and contact the GAC Motor authorized shop for inspection.

Steering mode

There are three steering modes, namely Light, Comfort and Sport, where the hand force of the driver turning the steering wheel will be small, moderate and large in Light, Comfort and Sport modes respectively. The system is in Light mode by default. With the steering wheel released in situ, enter the "Application Menu → Driving Mode → Current Mode Settings → Turning Force Applied to Steering Wheel" interface on the AV system display to set the steering mode.

CAUTION

To prevent an accident, never set the steering mode during driving.

6.8 Driving skills

6.8.1 Pre-driving safety inspection

Routine inspection

- Check the tire for high/low pressure, cuts, bulges, damage or excessive wear.
- Check whether the wheel studs are missing or loose.
- Check whether the headlamp, brake lamp, tail lamp, turn signal lamp and other lamps work properly; check the lighting direction of the headlamp.
- Check that the seat belt is not worn or damaged; check that the seat belt is fastened securely after fastening the seat belt.
- Check that the free travel of the pedal is sufficient.
- Check whether the levels of coolant, engine oil, brake fluid and windshield washer fluid are normal.
- Check the battery terminals for corrosion or looseness, and check the battery case for cracks or deformation caused by expansion.
- Check for leakage of fuel, engine oil, water or other fluids under the vehicle, and pay attention that water drip found after A/C operation is normal.

Inspections after starting/during driving

- Check whether the instrument cluster works properly; check whether any indicator lamp comes on or any alarm message is shown, etc.
- Check whether all controls (such as the lamplight combination switch, wiper combination switch and defroster switch) work properly.
- Check that the vehicle does not deviates to one side during braking on a road without safety risks.
- Check for other anomalies, such as part looseness, leakage and unusual noise.

6.8.2 Driving during running-in period

In order to ensure the service life of the vehicle, the vehicle must be run in at the initial stage of use before it can be put into normal use. Please comply with the following rules in the running-in period:

- The mileage in the running-in period shall be 1,500km.
- Choose roads in good condition and drive it at reduced load and limited speed.
- Do not start the engine with full throttle or drive with harsh acceleration.
- Avoid emergency braking in first 300km.
- Strictly follow the operating procedures and make sure that the engine has reached normal operating temperature. Do not change the oil before regular maintenance.
- Carry out the daily maintenance of the vehicle carefully. Check and tighten the external bolts and nuts frequently. Pay attention to the sound and temperature changes of each assembly during operation and adjust them timely.

Engine running-in

The mileage in the running-in period of a new engine shall be 1500km. Do not perform the following operations within the first 1,000km of driving:

- Keep the vehicle speed not higher than 3/4 of the maximum allowable speed.
- Do not drive the vehicle with full throttle.
- Avoid running the engine at high speed.
- Do not tow any trailer.

Within 1000km-1500km, it is allowed to increase the engine & vehicle speeds gradually to the maximum allowable range.

The internal frictional resistance of the engine at the beginning of running-in is much greater than that after running-in, and all the moving parts of the engine can have the best fitting after running-in.

After fully running in, both the service life and the fuel efficiency of the engine can be improved.

Running-in of tire and brake lining

Within the first 500km of driving, drive the vehicle at a moderate speed to get the new tires run in fully.

Within the mileage of 200 km ~ 300 km, the brake lining does not reach the best friction state, so the new vehicle shall be driven at a low speed and emergency braking shall be avoided as much as possible.

⚠ WARNING

- **A new tire and brake lining will not have the best adhesion and friction characteristics without running-in. Therefore, drive the vehicle cautiously within the first 500km to get the tires fully run in to prevent accidents.**
- **The new brake lining after replacement must also be subject to run-in in accordance with the above requirements.**
- **When driving vehicle, keep a proper distance from other vehicle to prevent the occurrence of emergency braking, as the new tires and brake lining have not fully run in at this time. If an emergency braking is applied, a traffic accident is likely to occur.**

⚠ WARNING

- **If the brake is damp, frozen or the vehicle is driven on a salted road, the braking effect will decrease.**
- **It is recommended to reduce the vehicle speed before driving down along a long steep slope and make full use of the engine braking, so as to reduce the brake load.**
- **The brake shall be applied according to the road and traffic conditions. Do not depress the brake pedal unnecessarily, which will overheat the brake and lead to long braking distance and excessive brake wear.**
- **Do not switch off the vehicle for coasting. Otherwise the brake booster does not work and the braking distance greatly increases, which is very easy to cause an accident.**

6.8.3 Driving essentials

Application of ECO driving modes

If the ECO driving mode is applied, torque corresponding to the depth of accelerator pedal depression is produced more smoothly than under normal conditions. Additionally, the A/C system work (heating/cooling) will be minimized, resulting in improved fuel economy.

Operation of ENGINE START/STOP button

If the ENGINE START/STOP button is not pressed briefly and firmly, its mode may not be switched or the vehicle may not be started.

The hybrid system may not be started in some cases if you try to restart the hybrid system immediately after the ENGINE START/STOP button is released. After the ENGINE START/STOP button is released, wait a few seconds before restarting the hybrid system.

CAUTION

If the vehicle is difficult to be started, please contact a GAC Motor authorized shop timely for inspection.

Operation of accelerator pedal/brake pedal

- Please drive the vehicle steadily. Avoid rapid acceleration and deceleration. Gradual acceleration and deceleration will allows for more efficient use of the motor with no engine power consumed.
- Avoid repeated acceleration. Repeated acceleration will consume the power of the traction battery and increase fuel consumption. Slightly releasing the accelerator pedal while driving may restore battery power.
- When braking, be sure to depress the brake pedal promptly and gently. More electricity can be regenerated during deceleration.
- In traffic jams, repeated acceleration and deceleration and long waits at traffic lights may reduce fuel economy. Please listen to traffic reports before setting off and avoid traffic jams as much as possible. When driving in heavy traffic, release the brake pedal slightly to allow the vehicle to move forward slowly, and avoid overuse of the accelerator pedal. This helps control excessive gasoline consumption.
- When running on main roads, vehicles should be controlled and maintained at a constant speed. Before stopping at a toll station or similar places, allow sufficient time to release the accelerator pedal and gradually depress the brake pedal. More electricity can be regenerated during deceleration.

A/C

Switch on the A/C only when necessary. This helps reduce excessive gasoline consumption.

When the ambient temperature is high in summer, please use the recirculation mode. This helps reduce the load on the A/C system and reduce fuel consumption.

In winter, fuel is consumed since the engine does not automatically shut down until it warms up and the temperature inside the vehicle rises. Additionally, fuel consumption can be improved by avoiding overuse of the heater.

Precautions under various road conditions or environments:

- When the vehicle is driving on a road with crosswinds and gusts, please decelerate in advance and control the speed and steering wheel.
- Avoid driving on sharp objects or other road obstacle, otherwise it may cause serious damage such as tire burst.
- Reduce the speed and drive at a low speed while driving on a bumpy or uneven road; otherwise the chassis may be scratched, which result in vehicle damage.
- When the vehicle is being driven downhill, decelerate in advance; avoid emergency braking, otherwise the brake system will overheat or be worn prematurely.
- When the vehicle is running on a slippery road, be careful during accelerating or braking; avoid sudden acceleration or emergency braking, otherwise it is likely to cause wheel slip.
- The vehicle shall be driven at a low and constant speed on an icy and snowy road; avoid sudden acceleration or emergency braking; and install tire chains for the wheels as needed.
- Since the engine starts and stops automatically at low temperature, there is no need to warm up the engine. In addition, frequent short-distance driving will cause the engine to warm up repeatedly, which will increase fuel consumption.

Precautions when driving over a water-logged road section

- Before driving over a water-logged road section, check the depth of water, which shall not be higher than the lower edge of the vehicle body.
- Before driving through water, switch off the A/C before starting, decelerate and then gently depress the accelerator pedal without release to drive over the water-logged road section at a stable and low speed.
- Do not stop, reverse or shut down the vehicle in water.
- After successfully driving through the water-logged road section, gently depress the brake pedal for several times to evaporate the moisture on the brake discs so as to restore the braking performance as soon as possible.

NOTE

The brake linings and brake discs are soaked in water while the vehicle is washed or driven over a road with deep water logging, and the braking effect will be greatly reduced; the braking distance will be longer than usual and the vehicle may be deviated to one side, and the parking brake cannot hold the vehicle still. In this case, it is recommended to drive the vehicle at a low speed and constantly depress the brake pedal slightly to remove residual moisture in the brake to recover the braking effect to the normal level. And then, normal driving can be resumed.

Driving essentials in winter

1. Check if the coolant is in good condition and if it has good anti-freeze effect as follows:
- Fill the cooling system with the coolant of the same type as the original one according to the ambient temperature.
- Adding unsuitable coolant may cause damage to the engine.
2. Check the battery and cables as follows:

- A low temperature in chilly days will reduce the capacity of battery, and therefore, fully charge the battery for start-up in winter.

3. Prevent the door lock from being frozen by ice and snow as follows:

- Spray some de-icer spray or glycerin into the door lock hole to prevent the door lock from being frozen.

4. Use washer fluids containing antifreeze:

- These products are available at GAC Motor authorized shop.
- The mix ratio of water to antifreeze shall comply with the manufacturer's instructions.

5. Avoid accumulated ice and snow beneath the mudguard:

- Accumulated ice and snow beneath the mudguard may result in difficult steering. When driving in the cold winter, stop the vehicle regularly and check whether there is ice and snow under the mudguard.

6. It is recommended to bring some necessary emergency items according to the road conditions, such as:

- Tire chains, a window scraper, a bag of sand or salt, a flashing light, a plough staff, connecting cables, etc., which are recommended to be placed in the vehicle.

7. In cold winter (especially in northern China), avoid starting the engine frequently and shutting down the engine immediately after a short-time start. If the engine is often in an alternating heat & cold cycle, the condensed water is likely to form in the engine, and when the condensed water adheres to the engine oil, it may give an illusion of water-in-oil emulsion, and after the engine is restarted and warmed up, this illusion will be shattered; in addition, please change the oil regularly as required in the *Warranty Manual*.

8. When the vehicle is started when the ambient temperature is low, the "READY" indicator lamp may flash for a long time. Keep the vehicle stationary until the "READY" indicator lamp lights up steadily, which means the vehicle can be moved.

CAUTION

- Do not depress the accelerator pedal and brake pedal at the same time during driving, otherwise the hybrid system output may be limited.
- Do not stop on a slope by using the accelerator pedal, or by depressing the accelerator pedal and brake pedal at the same time.

⚠ WARNING

- When the vehicle is stopped and the “READY” indicator lamp comes on, keep your foot to press on the brake pedal. This prevents the vehicle from sliding.
- When the vehicle is driven by the drive motor only, the driver should pay special attention to pedestrians on the road. Since there is no engine sound, pedestrians may misjudge the movement of the vehicle. Even if your vehicle is equipped with an AVAS, you should drive with caution because nearby pedestrians may not notice your vehicle if the surrounding environment is noisy.
- Do not turn off the hybrid system during normal driving. Turning off the hybrid system while driving will not make loss of steering and braking control, but power assist to the steering will be lost. This will make steering more difficult, so the vehicle should be pulled over to the side of the road as soon as it is safe to do so.

⚠ WARNING

- Do not drive the vehicle off-road. This vehicle is not designed for off-road driving. If off-road driving is unavoidable, always drive with caution.
- Do not drive through rivers or other bodies of water. Failure to do so may cause short circuit of electrical/electronic components, damage the hybrid system, or cause other serious damage to the vehicle.
- Emergency braking, sudden acceleration and steering may cause tires to slip, reducing vehicle handling.
- Sudden acceleration, engine braking due to gearshift, or changes in engine speed may cause the vehicle to slip.

⚠ WARNING

- After driving through a puddle, lightly depress the brake pedal to ensure the brakes are working properly. Wet brake pads may cause your brakes to not work properly. If the brake pads on just one side are wet and not functioning properly, steering control may be affected.
- Do not spin the wheels excessively if either wheel is suspended or if the vehicle is trapped in sand, mud, etc. Failure to do so may damage drivetrain components or cause the vehicle to move fast forward or backward, resulting in an accident.

⚠ WARNING

- **Do not allow the vehicle to move backward after the forward gear is selected, or move forward when the gearshift lever is in R position. Failure to do so may cause an accident or damage to the vehicle.**
- **Do not move the gearshift lever to P position while the vehicle is moving. Failure to do so may damage the transmission and result in loss of vehicle control.**
- **Do not move the gearshift lever to R position while the vehicle is moving forward. Failure to do so may damage the transmission and result in loss of vehicle control.**

⚠ WARNING

- **Do not move the gearshift lever to D position while the vehicle is moving backward. Failure to do so may damage the transmission and result in loss of vehicle control.**
- **Moving the gearshift lever to N position while the vehicle is moving will disengage the hybrid system. When N is selected, engine braking will not work.**
- **Do not move the gearshift lever after the accelerator pedal is depressed. Moving the gearshift lever to any position other than P or N may cause the vehicle to accelerate unexpectedly, resulting in an accident and serious injury or even death.**

6.8.4 Efficient operation of vehicle

- Before driving, make sure that the parking brake is completely released and the parking brake indicator lamp is off.
- Maintain sufficient tire pressure, as a too low tire pressure can cause premature tire wear and higher fuel consumption.
- Ensure that the wheel alignment is accurate. Otherwise it will cause premature tire wear, increased engine load and higher fuel consumption.
- Do not overload the vehicle, and unload unnecessary items from the vehicle, as excessive load will increase the engine load and the fuel consumption thereafter.
- Accelerate the vehicle slowly and smoothly to avoid rapid acceleration.
- Avoid roads with traffic jams as much as possible, as driving in traffic jam will increase the fuel consumption.
- Drive according to traffic lights, or keep a safe distance from other vehicle to avoid unnecessary parking or emergency braking, which can save fuel and reduce brake system wear.

- Do not step on the brake pedal when the vehicle is running, for fear of premature wear and overheating of brake linings and waste of fuel.
- When driving, select good road surface. If driving on uneven roads, control the vehicle speed to avoid collision or scratches.
- If the chassis is stained with objects such as excessive dirt, clean them in time to reduce the vehicle's weight and prevent corrosion.
- Perform regular maintenance on the vehicle to maintain its optimal working condition, as dirty air cleaner, spark plugs, oil, and grease will reduce the engine performance and increase fuel consumption.
- When starting the engine at a low temperature, drive slowly for a few minutes, and ensure the engine is warmed up before acceleration.
- Do not open windows when driving at high speed.
- Properly use the A/C, etc.
- In case of parking for a long time, please shut down the engine to avoid wasting fuel due to long-term idling of engine.

6.8.5 Fire prevention

In order to prevent vehicle fires, pay attention to the followings during use:

1. Never store flammables or explosives in the vehicle:

- In hot summer days, the inside temperature of vehicles parked in the sun can be as high as 70°C or more. If flammables or explosives such as lighters, cleaning agents and perfumes are stored in the vehicle, fire and even explosion will be likely to occur.
- Items with risk of fire such as lithium batteries or power banks left in the vehicle by passengers are also likely to cause fire.

2. Make sure the cigarette butts are completely extinguished after smoking:

- If the cigarette butts are not completely extinguished, fire may be caused.

3. It is recommended to regularly drive to the GAC Motor authorized shop for inspections:

- Also subject all electric lines of the vehicle to regular inspections. Specifically speaking, check whether the connectors, insulation, and fixing positions of electrical components and harnesses are normal, and handle any problems found during inspection in a timely manner.

4. Never modify the electrical circuits or install additional electrical components:

- Installation of additional electrical consumers (such as high-power audio device) will cause excessive load on the electrical line, causing overheating and even fire of harnesses.
- Never use fuses that exceed the rated specifications of the electrical consumer or other metal wires to replace the fuses.

5. Precautions for driving:

- During driving and parking, especially in summer, be sure to check if there are flammables such as hay, dry branches, leaves and wheat stalks under the vehicle, as they may be ignited by the components heated after long-time driving, such as engine exhaust pipe.
- Check whether the instrument cluster works properly; check whether any indicator lamp comes on or any alarm message is shown, etc.

6. Always place a lightweight fire extinguisher in the vehicle, and know its operation method:

- In order to ensure the safety of the vehicle, it shall be equipped with fire extinguisher, and shall be inspected and replaced regularly; At the same time, be familiar with the use of fire extinguisher, and be prepared to avoid being helpless in case of accidents.

7.1 Maintenance instructions

Safety precautions

To avoid potential hazards, please read this section before work and confirm that you have the necessary tools and techniques.

- Make sure that the vehicle is parked on level ground, shut down the engine, and apply the parking brake.
- When cleaning parts and components, use the commercially available de-greaser or parts cleaner, instead of gasoline.
- Keep lit cigarettes, sparks, and open flames away from batteries and all fuel system related components.
- When working on batteries or with compressed air, wear goggles and protective clothing.

⚠ WARNING

Incorrect vehicle maintenance or driving the vehicle before the problem is solved may cause a traffic accident, resulting in serious injury or death.

Potential hazards of the vehicle

- High-voltage electric shock: Do not touch high-voltage components to prevent injury from high-voltage electric shock.
- Carbon monoxide: Since carbon monoxide in the exhaust gas of the engine is toxic, be sure to start the engine in a well-ventilated place.
- Burns: The engine and exhaust system are at high temperature during operation, which can easily cause burns. Therefore, wait till the engine and exhaust system cool down before touching the related parts and components.

CAUTION

This section lists some of important safety precautions. We cannot list all the dangers you may encounter during maintenance work.

7.2 Interior maintenance

Cleaning and maintenance of instruments and plastic parts

Clean the surface of instruments and plastic parts with a clean soft cloth and clean water.

If it cannot be cleaned, it is required to use a special solvent-free plastic cleaning agent for cleaning.

CAUTION

Solvent-based cleaning agents can damage plastic parts.

⚠ WARNING

It is forbidden to use cab sprays and solvent-based cleaning agents to clean the surface of the instrument panel and airbag assembly. Otherwise, it may loosen the surface and trigger the airbag, which may cause serious injury to occupants.

Cleaning and maintenance of carpet

Vacuum the dust on the carpet frequently.

Scrub the carpet regularly with detergent to keep it clean.

CAUTION

Please perform the cleaning in strict accordance with the use instructions of cleaning agents.

⚠ WARNING

- **It is forbidden to add water to the foam cleaner. The carpet shall be kept as dry as possible.**
- **The traction battery is located under the rear seat cushion. Do not spill fluid on high-voltage components such as traction battery.**

Cleaning and maintenance of leather*

- Vacuum the dust.
- Clean the leather with a clean soft cloth and clean water.
- Wipe the leather dry with another dry soft cloth.
- If the cleaning methods described above are not enough to clean stains, please combine these methods with special leather cleaning soap or detergent.

CAUTION

If a leather stain remover is used, wipe it dry with a soft dry cloth as soon as possible.

⚠ WARNING

Never leave a soft cloth wet with leather stain remover on any part of the interiors for a long time. Avoid discoloring or breaking the resin or fibers of interior fabrics.

Cleaning and maintenance of seat belts

- Pull the seat belt out slowly and keep it extracted.
- Remove dirt from the seat belt by using a soft brush and neutral soapy water.
- After seat belts dry completely, retract the seat belts.

CAUTION

- You must wait for the seat belt to dry completely before retracting it. Otherwise, seat belt retractors may be damaged.
- Check all seat belts in the vehicle regularly to ensure that the seat belts are clean so as not to hinder their normal operation.

⚠ WARNING

- **If the seat belt webbing, connectors, retractor mechanism or buckles are damaged, please go to the GAC Motor authorized shop for replacement as soon as possible.**
- **For the overhaul of an accident vehicle, seat belts must be replaced, no matter whether they are damaged.**
- **Prevent foreign matter or liquid from entering the seat belt lock catch, causing the lock catch and seat belt to fail to work normally.**
- **In any case, it is forbidden to disassemble and modify the seat belt without permission.**
- **It is forbidden to use chemical cleaning agent to clean the seat belt, so as not to cause damage to the seat belt base and affect its function.**

Cleaning and replacement of filters

The vehicle is equipped with an air cleaner, an A/C filter, an oil filter, a fuel filter, etc. They aim to filter gases or fluids. If they are too dirty or clogged, the normal operation of corresponding systems will be affected. Therefore, it is recommended to regularly clean or replace the filters at the GAC Motor authorized shop according to the provisions of the *Warranty and Maintenance Manual*.

7.3 Exterior maintenance

Vehicle washing

Washing the vehicle frequently helps to protect its appearance.

Vehicle washing shall be performed in a cool place, rather than under direct sunlight. If the vehicle is left in the sun for a long time, wait till the vehicle body surface cools down before washing the vehicle.

When using an automatic vehicle washer, be sure to follow the instructions of the operator of the automatic vehicle washer.

⚠ WARNING

The vehicle must be powered off before wash.

CAUTION

The paint surface of the vehicle body is strong enough to withstand the washing of the automatic vehicle washer. However, it is important to pay attention to the effects on the paint surface. The structure of the automatic vehicle washer, the cleaning agent, the filtering state of the clean water, and the type of wax solvent that do not meet the requirements may cause damage to the paint surface.

Manual vehicle washing

- Rinse the vehicle with plenty of clean water to remove floating dust.
- Prepare a bucket of water and add a special cleaning agent for car washing to it.
- Gently scrub the vehicle with a soft cloth, sponge, or soft brush, and rinse it several times from top to bottom.
- The wheels, door sill and other parts shall be washed finally, and the sponge or soft cloth shall be replaced when washing the vehicle.
- After scrubbing, rinse the vehicle thoroughly with plenty of water.
- After cleaning, carefully dry the vehicle paint surface with a soft towel or antelope skin.

CAUTION

When the vehicle body has dirt such as asphalt, it needs to be cleaned with a special cleaning agent, and then rinsed with clean water to avoid damaging the surface finish of the vehicle body. Check the body for paint peeling and scratches while wiping the body. If any, drive to the GAC Motor authorized shop for touch-up.

When using a steam cleaner or a high-pressure cleaner to wash the vehicle, be sure to be very careful. Be sure to wash the vehicle in accordance with the operation instructions and requirements of the steam cleaner or high-pressure cleaner. Pay attention to the working pressure, temperature and spraying distance:

- When using a steam cleaner or a high-pressure cleaner to wash the vehicle, keep a sufficient water spray distance from the vehicle, and ensure the temperature does not exceed 60°C.
- Do not wash the RPA sensor or parking assist camera with a high-pressure cleaner for a long time; when washing the RPA sensor or parking assist camera, keep a water spray distance of more than 30cm.

⚠ WARNING

- **Pay attention to personal safety when washing the vehicle manually, and beware of vehicle bottom edges and corner parts to avoid scratches.**
- **When cleaning, pay special attention to the bottom of the vehicle and the inside of the wheel cover, and do not hurt your hands and arms by sharp parts.**
- **When cleaning the vehicle, do not directly flush water into the engine compartment. Otherwise, it will affect the service life of various parts and components in the engine compartment.**
- **Never rinse the fuse box with a high-pressure water gun.**

Waxing

Regular waxing can protect the paint surface of the vehicle body and keep the vehicle body clean. In order to effectively protect the paint surface of the vehicle body, it is recommended to apply high-quality hard wax once a year to protect the paint surface against corrosion by external bad environments and to resist light mechanical scratch.

Be sure to wipe the appearance of the entire vehicle dry before waxing. Before waxing the vehicle, please select a high-quality wax protectant. High-quality wax protectant generally falls into the following two types:

- Car body wax: a wax used to protect the paint surface against damage by external bad environments such as sun exposure and air pollution. This type of wax is generally used for new vehicles.
- Polishing wax: a wax which can restore the gloss of the paint surface that has been oxidized or tarnished. This type of wax is generally used to restore the gloss of paint surface.

Cleaning and maintenance of external plastic parts

External plastic parts are generally washed with clean water, soft cloth and soft brushes. If they cannot be cleaned, please use the special solvent-free plastics cleaner approved by our company.

CAUTION

Do not use solvent-based cleaning agents when washing plastic parts. Otherwise, it is easy to damage the plastic parts.

Washing of window glasses and rearview mirrors

Clean the window glasses and rearview mirrors with alcohol-based glass cleaner, and then wipe the glass surface dry with a clean, lint-free soft cloth or antelope skin.

After curing the surface of the vehicle body, remove the wax residue on the glasses with a special cleaning agent and cleaning cloth. Avoid scratching the wiper blades.

Remove snow from the windows and rearview mirrors using a small brush.

Remove accumulated ice using de-icer spray. An ice shovel can also be used, but special care must be taken to avoid damage to the components, and ice must be shaved in the same direction.

CAUTION

- It is forbidden to scrape the surface back and forth.
- It is forbidden to use warm or hot water to remove ice and snow from windshield and rearview mirror. Otherwise, the windshields may burst.
- If there are residual rubber, grease and silicone substances on the glass, they must be removed with special window cleaner or silicone cleaner.

Cleaning and maintenance of wiper cover plate

Try to avoid parking the vehicle under a tree frequently/for a long time. In case of leaves or other debris on the surface of the wiper cover, please clean them in time.

Cleaning of wiper blade

- Set the ENGINE START/STOP button to “ON” position and then to “OFF” position.
- Move the wiper combination switch to the “MIST” position within 10s. The wiper arm will stop after running for half a circle.
- Raise the wiper arm and carefully wipe off the dust and dirt on the wiper blade with a soft cloth.
- After cleaning, gently lower the wiper arm back to the windshield.
- Set the ENGINE START/STOP button to “ON” position. Then the wiper automatically returns to the original position.

CAUTION

- Be careful when lowering the wiper arm to prevent it from falling and hitting the windshield instantly.
- The wiper blade surface is coated with a layer of graphite, which can make the wiping smooth without scratching noise. Solvent-based cleaning agents, hard sponges and sharp objects can damage the graphite layer. The damage of the graphite layer will increase the wiping noise of the wiper, so it should be replaced in time.
- In winter or cold conditions, be sure to check that the wiper blades are not frozen to the windshield before using the wiper. If so, perform de-icing first. Otherwise, the wiper blade and wiper motor will be damaged.

Maintenance of sealing strips

Frequent and proper protection of the rubber sealing strips of the doors, windows and other parts of the vehicle is intended to maintain their flexibility and prolong their service life. Such protection can also improve the tightness, make the door easy to open, reduce the impact sound of closing the door, and prevent freezing in winter.

When performing maintenance on sealing strips, remove dust and dirt from surfaces using a soft cloth. Apply special protective agent to rubber sealing strips regularly.

Cleaning and maintenance of wheels

Regularly remove anti-skid salts on the wheels and debris on the brake linings, keep the wheels aesthetic, maintain the surface smooth and prolong the service life of wheels. It is recommended to perform the following operations regularly:

- Remove anti-skid salts on the wheels and debris on the brake linings using acid-free detergent every two weeks.
- Apply high-quality hard wax to the alloy wheels every three months.

CAUTION

- **It is prohibited to maintain the wheel surface with vehicle polish or other abrasives.**
- **The wheels with damaged protective coating on surface must be repaired in time.**
- **Using a high-pressure cleaner may cause permanent visible or invisible damage to the wheels, resulting in serious injury or death.**
- **It is forbidden to spray the tire with cluster nozzles, otherwise it will cause damage to the tire and cause traffic accidents.**

7.4 Inspecting and adding fluids

7.4.1 Fuel

As the amount of fuel decreases when the vehicle is running, the fuel gauge scale will gradually decrease. => See page 47

When the fuel level is too low, the yellow indicator lamp flashes, and the instrument cluster will give an alarm message. At this time, fuel shall be added as soon as possible.

Adding fuel

- Pull the fuel tank cap opening handle to make the fuel tank cap pop up.

- Open the fuel tank cap completely, and slowly unscrew the fuel filler cap counterclockwise as arrowed. Keep the fuel filler cap at the original place for a while before it is unscrewed completely to allow fuel tank to release the fuel vapor inside, and then remove it.

- Hang the filler cap on the inside of the fuel tank cap plate and start to add the fuel.
- After refueling, tighten the filler cap clockwise until a “click” sound is heard, indicating that the filler cap is fully tightened.

NOTE

Fuel grade: The octane number, please refer to the fuel label on the fuel filling cap.

NOTE

This model conforms to the China VI emission standards. The China VI fuel supply system design adopts a closed oil and gas recovery system. When refueling, the refueling gun switch may be triggered and the refueling gun may jump even the refueling is not enough due to high ambient temperature or too fast refueling, which is a normal phenomenon. In this case, the refueling should be slowed down.

CAUTION

- Using low-grade fuel or substandard fuel may damage the engine or make the engine fail to meet performance requirements.
- When the fuel indication is less than 1/4, please refuel in time to avoid the vehicle breaking down due to insufficient fuel supply on the uphill and downhill sections.

CAUTION

When refueling, it is necessary to insert the refueling gun into the deepest part of the fuel filler pipe. When the refueling gun jumps for the first time, it is recommended not to continue refueling to avoid fuel overflow due to excessive refueling.

WARNING

- **At any time, be sure to shut down the engine when refueling, and pay attention to open flames and fire.**
- **Please avoid contact of fuel with skin or clothing.**
- **Please refuel the vehicle according to the vehicle fuel grade. If fuel not complying with the regulations is added accidentally, do not start the engine. Please contact the GAC Motor authorized shop immediately for treatment.**

7.4.2 Engine oil

Function of engine oil

Engine oil has functions such as lubrication, sealing, cooling, anti-rusting and cleaning.

Specifications of engine oil

The engine has been filled with high-quality engine oil, which can be used in the year-round climate except for extreme cold weather before delivery.

When purchasing engine oil, please check whether the specifications indicated on the outer packaging of the engine oil are suitable for the engine of this vehicle.

NOTE

- Engine oil grade: API SN.
- Engine oil viscosity: SAE 0W-20.

NOTE

- Be sure to go to the GAC Motor authorized shop to change the engine oil according to the period specified in the *Warranty and Maintenance Manual*.
- If the vehicle is running under severe conditions, fuel with high sulfur content is used, engine idles for a long time (e.g., a taxi), the vehicle is driven in a high-dust area, the vehicle often tows a trailer, or the vehicle is used in an alpine area, the maintenance cycle shall be shortened and the maintenance times shall be increased.

WARNING

Always use the engine oil approved by our company. If oil of other grades is used, the engine damage caused by this will not be covered under the quality warranty.

Engine oil pressure warning lamp

When driving, if the warning lamp comes on, be sure to stop the vehicle in a safe place and shut down the engine. After the engine cools down, check the oil level.

If the engine oil level is normal, but the warning lamp is still on after the engine is started, do not continue to start the engine. In this case, contact the GAC Motor authorized shop timely for inspection.

WARNING

- **Ignoring the warning lamp and related warning instructions may damage the engine.**
- **Low oil pressure warning lamp cannot indicate the oil level, so the oil level must be checked regularly.**

Inspecting the oil level

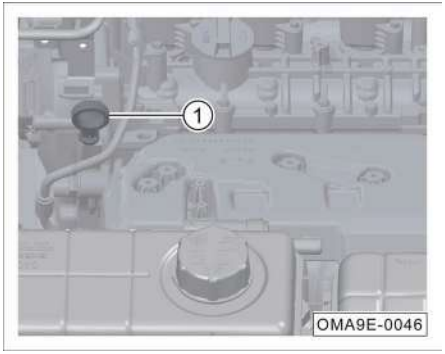
Be sure to check the oil level regularly. Park the vehicle on a level ground, apply the park brake, and shut down the engine. After the engine cools down, open the engine hood and check the oil level.

NOTE

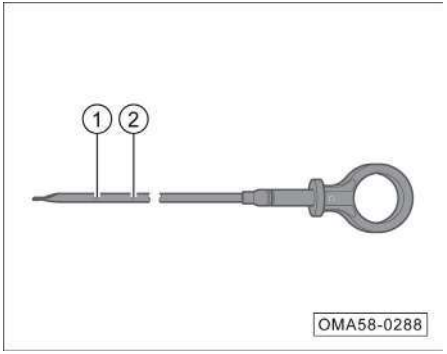
While checking the oil level, ensure the engine is cold.

WARNING

- **Be careful when working in the engine compartment.**
- **The front engine compartment is a high-risk area. Be sure to carefully read and observe the relevant warning instructions before opening the engine hood.**

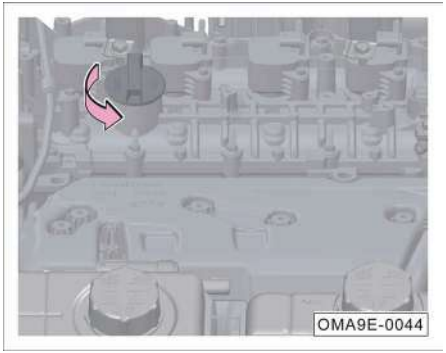


- Pull out the oil dipstick.



- Wipe off the oil stains on the dipstick using a clean cloth, and then insert the oil dipstick to the end.
- Pull out the dipstick again and read the measured oil level, which shall be between the minimum scale mark ① and the maximum scale mark ②.
- If there is too little engine oil, please add engine oil in time. Otherwise, poor lubrication will damage the engine.

Adding engine oil



After checking the oil level, if required, add engine oil following the steps below:

- Unscrew the oil filler cap counterclockwise.
- Add the engine oil in small quantities several times, and check the oil level after each filling.
- When the oil level is close to the maximum scale mark ②, indicating the engine oil is sufficient, stop adding oil, refit the oil filler cap and tighten it clockwise.

⚠ WARNING

- **Be careful when adding the engine oil. Do not spill it. If the engine oil gets on skin, be sure to rinse the skin thoroughly.**
- **If too much oil is added, do not start the engine. In this case, please contact the GAC Motor authorized shop as soon as possible. Otherwise, the three-way catalytic converter may be damaged.**
- **After the filling is completed, the oil filler cap must be tightened in case the oil splashing when the engine starts and causes a fire.**
- **The engine oil is a toxic substance. Store the engine oil in the original container and keep out of reach of children to avoid poisoning by accidental ingestion.**
- **Do not add other lubricants to the engine oil, otherwise the engine will be damaged, and the fault caused by adding lubricant is not within the scope of warranty.**

7.4.3 Coolant

Function of coolant

Coolant has functions such as cooling, anti-freezing and anti-corrosion.

Specifications of coolant

When the vehicle leaves the factory, the cooling system has been filled with coolant. Except for extremely cold weather, the coolant can be used throughout the year.

i NOTE

- Coolant specifications: DF-6, -35°C coolant.
- Be sure to go to the GAC Motor authorized shop to change the coolant according to the period specified in the *Warranty Manual*.
- If the coolant changes color, shorten the maintenance interval and go to the GAC Motor authorized shop for change.

The cooling systems of this model include engine cooling system and electromechanical coupling cooling system. Therefore, during routine inspections, attention must be paid to checking the coolant of cooling systems at the same time.

High engine coolant temperature indicator lamp

Always observe the indicator lamps on the instrument cluster during driving.

If the coolant temperature is too high, the indicator lamp on the instrument cluster comes on in red, and an alarm message is given to prompt the driver; at this time, the vehicle must be stopped in a safe place and the engine shut down. After the engine cools down, check the coolant level.

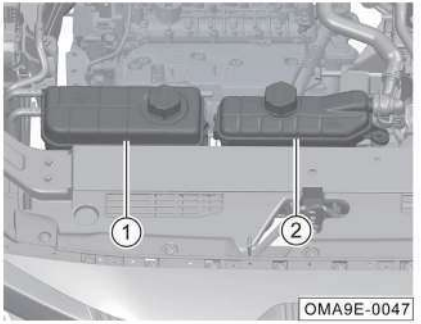
If the coolant level is normal but the indicator lamp is still on after the engine is started, do not continue to start the engine. In this case, contact the GAC Motor authorized shop timely for inspection.

Inspecting the coolant level

Be sure to check the coolant level regularly. Park the vehicle on a level ground, apply the parking brake, and shut down the engine. After the engine cools down, open the engine hood and then check the coolant level.

⚠ WARNING

- **Be careful when working in the engine compartment.**
- **The front engine compartment is a high-risk area. Be sure to carefully read and observe the relevant warning instructions before opening the engine hood.**
- **If steam or coolant flows out from the engine compartment, do not open the engine hood, for fear of burns; wait till there is no steam or coolant overflowing and the system cools down before opening the engine hood.**



① Engine coolant expansion tank

② Coolant expansion tank of electromechanical coupling cooling system

Check whether the coolant level in the expansion tanks is between the upper limit mark “MAX” and the lower limit mark “MIN”.

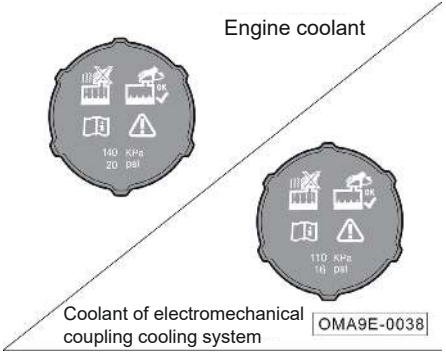
NOTE

When the system is not cooled, the coolant level will be high, and there will be errors in checking the coolant level.

CAUTION

When the coolant level is below the minimum scale mark “MIN”, coolant must be added. Insufficient coolant will affect the cooling effect and cause damage to the engine or the electromechanical coupling cooling system.

Adding coolant



After checking the coolant level, if required, add coolant following the steps below:

- Wrap the expansion tank cap with a thick cloth and unscrew it counterclockwise.
- Add coolant between the upper limit mark “MAX” and the lower limit mark “MIN”.
- Tighten the expansion tank cover clockwise to the lock stop.

CAUTION

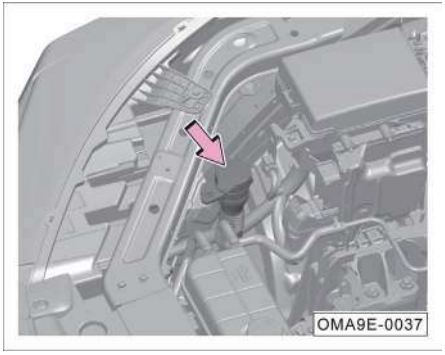
- When the system is not cooled, the cooling system is under high pressure. In this case, do not open the expansion tank cap, otherwise the emerging coolant will cause scald.
- Coolant can only be added after the system has cooled down. The coolant level after filling must not exceed the maximum scale mark “MAX”. Otherwise, when the vehicle is started and the cooling system is under high pressure, coolant will overflow.
- Only fresh coolant is allowed to be added.
- Avoid foreign matters (such as sand or dust, etc.) getting into the coolant.
- Do not use any coolant additives.

⚠ WARNING

- **It is forbidden to mix coolant that have not been approved by our company in the original coolant.**
- **In case of emergency, if other coolant or pure water is added, you should go to the GAC Motor authorized shop to clean the cooling system and change with new coolant.**
- **If too much coolant is consumed or coolant is consumed too fast, there may be a leak in the cooling system. In this case, please go to the GAC Motor authorized shop for inspection in time.**
- **Coolant must be contained in the original container, and kept out of children's contact to avoid poisoning due to accidental ingestion.**

7.4.4 Windshield washer fluid and wiper blades

Adding windshield washer fluid



- If the washer fluid level is found to be too low, add the washer fluid into the reservoir in time.

CAUTION

- Never use soapy water or other antifreezes to replace washer fluid, otherwise it may cause markings on the paint surface of the vehicle.
- Do not mix the windshield washer fluid with other washing liquids, otherwise it will cause the washer fluid components to decompose and block the windshield washer nozzle.

⚠ WARNING

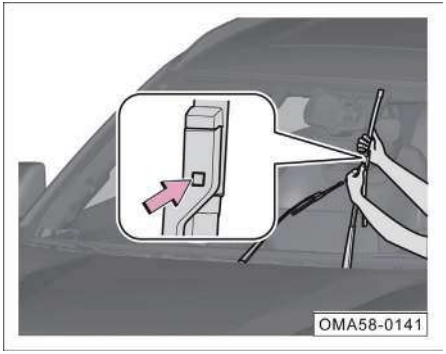
- **Be careful when working in the engine compartment. Before operation, be sure to carefully read and follow the relevant warning instructions.**
- **Do not misuse coolant or any other additives as windshield washer fluid. Otherwise, oil stains will be left on the windshield during cleaning of the windshield, which will affect the visibility and easily cause accidents.**
- **It is forbidden to use windshield washer fluid with more than 10% ethanol content. Under high temperature environment, this type of windshield washer fluid will cause corrosion of lamps and crack lamps. It is recommended to use methanol washer fluid.**

Replacing front windshield wiper blades

- Set the ENGINE START/STOP button to “ON” position and then to “OFF” position.
- Move the wiper combination switch to the “MIST” position within 10s. The wiper arm will stop after running for half a circle.

i NOTE

With the wiper switch in the “OFF” position, if the soft key on the right of “Wiper Maintenance Mode” is touched on the AV system “Settings → Body Accessories → Other Accessories” interface, the wiper arm will stop after moving for half a circle. If the soft key on the right is touched again, the wiper arm will be reset.



- Pull up the wiper arm, press the locking button-arrow-, and remove the wiper blade.
- Slowly lower the wiper arm.
- Install the new wiper blade into the wiper arm in reverse steps. It is installed in place when a “click” is heard.
- Gently put the wiper arm back onto the windshield.
- Set the ENGINE START/STOP button to the “ON” position to let the wiper arm automatically return in place.

CAUTION

- The wiper arm can be pulled up only after it is adjusted to the wiper maintenance mode.
- Do not open the hood when the wiper is pulled up, otherwise the hood and wiper arm will be damaged.
- When pulling up the wiper arm, please hold the wiper arm by hand instead of the soft wiper blade.
- New wiper blades with the same length and specifications as the previous ones must be used.
- Be careful while lowering the wiper arm to prevent it from falling and hitting the windshield instantly.
- The status of wiper blades must be checked regularly and replaced as required. Damaged wiper blades must be replaced in time.
- Excessive worn or dirty wiper blades are easy to scratch the windshield, and will affect the field of vision and reduce driving safety during use.

7.4.5 Brake fluid

Function of brake fluid

Brake fluid is used to transmit power in the hydraulic brake system of the vehicle.

The brake fluid is water-absorbent, so it can continuously absorb moisture in the surrounding air during use. If the brake fluid remains in the system for a long time and the water absorption is too high, air resistance will be generated in the system pipeline during braking, which will reduce the braking effect, affect the driving safety, and even lead to complete failure of the brake system, causing accidents. Therefore, be sure to go to the GAC Motor authorized shop to check the brake fluid level or change the brake fluid according to the period specified in the *Warranty and Maintenance Manual*.

NOTE

Specifications of brake fluid: DOT4.

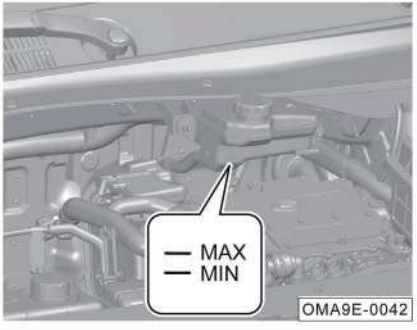
⚠ WARNING

- **The use of waste brake fluid or improper brake fluid will greatly reduce the braking effect and even cause brake system failure! The company does not assume any responsibility (including quality guarantee) for vehicle failures and damage caused thereby.**
- **Brake fluid in use must meet the criteria and be fresh.**

Brake system indicator lamp

When the vehicle is running, if the indicator lamp (!) comes on in red, and the instrument cluster displays the information “Please add brake fluid”, be sure to immediately stop the vehicle at a safe place and check whether the brake fluid level is normal.

Inspecting brake fluid level



When the engine cools down, check whether the brake fluid level is between the maximum scale mark “MAX” and the minimum scale mark “MIN”.

During the use of the vehicle, the brake fluid level will slightly drop due to the worn brake linings and automatic adjustment.

If the brake fluid level drops significantly or drops below “MIN” in a short period of time, it indicates that there may be a leakage in the brake system.

i NOTE

- **Be sure to carefully read and observe the relevant warning instructions before opening the engine hood.**
- **If the brake fluid level is checked to be below the minimum scale mark (“MIN”), the brake fluid must be added.**
- **If the brake system warning lamp does not go out or comes on again during driving after adding the brake fluid, there may be leakage in brake system that causes the brake level decreasing too fast or the brake system may be faulty. In this case, do not continue driving. Please contact the GAC Motor authorized shop for inspection and repair in time.**

Adding brake fluid

In order to ensure the normal operation of the brake system, the added brake fluid shall meet the specifications:

- Open the brake fluid reservoir cap counterclockwise.
- Add fresh brake fluid to the upper limit mark “MAX” and stop adding.
- Tighten the brake fluid reservoir cap clockwise.

CAUTION

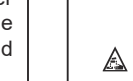
- The brake fluid will corrode the paint surface of the vehicle body. Brake fluid splashed on the paint surface shall be wiped off in time.
- The use of waste brake fluid or improper brake fluid will greatly reduce the braking effect due to incompatibility, and even lead to brake system failure.

WARNING

- **Brake fluid is a poisonous substance and must be packed in the original sealed container and placed in a safe place. Beware of children’s contact, so as to avoid poisoning by accidental ingestion.**
- **Brake fluid must be stored in accordance with environmental protection laws.**

7.4.6 Battery

Warning symbols and instructions for battery operation

	Goggles must be worn during operation!
	The battery electrolyte is highly corrosive. Protective gloves and goggles must be worn during operation!
	Open flames, sparks, uncovered lamps and smoking are prohibited in the workplace!
	Extremely explosive gas mixture is generated during battery charging!
	Children must keep away from electrolyte and vehicle battery!

In case of unfamiliarity with the operation process or no special tools, never carry out any operations on the electrical system of the vehicle, and contact the GAC Motor authorized shop.

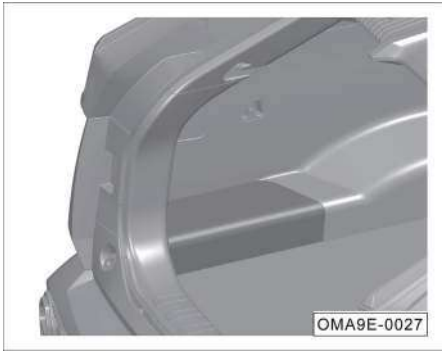
Charging system warning lamp

The warning lamp is used to indicate alternator failure.

The warning lamp will come on when the vehicle is not started with the START/STOP button set to “ON” position, and will go out after the vehicle is started.

When the vehicle is running, if the warning lamp comes on, it indicates that the charging system is faulty. In this case, please go to the GAC Motor authorized shop for inspection in time.

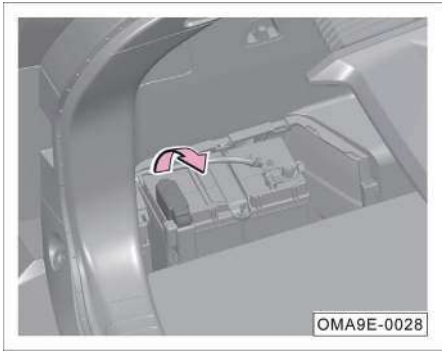
Position of storage battery



The battery is located on the left side of the trunk. You can see the battery by opening the trim cover.

Inspecting the battery

The battery must be checked according to the period specified in the *Warranty and Maintenance Manual*.



- Flip up the cover of the battery’s positive terminal.
- Check the connection of the battery connector and the cable for corrosion or looseness; check the appearance of the battery for cracks, swelling, etc. If the phenomena above are found, please go to the GAC Motor authorized shop for inspection in time.
- If the vehicle is not used for a long period of time, check the battery condition frequently.

NOTE

- If the battery level is insufficient or the battery is damaged, which makes it difficult to start the vehicle, please contact the GAC Motor authorized shop in time to charge or replace the battery.
- If it is required to replace the battery, please go to the GAC Motor authorized shop for replacement; if a wrong type of battery is used, the vehicle may not run due to incompatibility or the electrical system may fail.

Instructions for using the battery

When the ENGINE START/STOP button is in the “ON” position and the vehicle has not been started, the battery will quickly discharge when an electrical consumer on the vehicle is being used:

1. Do not use electrical consumers in the vehicle for a long time when the ENGINE START/STOP button is in the “ON” position and the vehicle has not been started.
2. While leaving the vehicle, make sure that the doors are closed and all electrical consumers (e.g., lamps) are turned off.

CAUTION

- If the vehicle can not be started due to depleted battery, please try emergency start => See page 281. If the vehicle still can not be started, please contact the GAC Motor authorized shop for inspection.
- To avoid damage to the electrical system of the vehicle, never connect power generation equipment such as solar panels or vehicle battery chargers to a power outlet.
- The battery contains toxic substances such as sulfuric acid and lead, so it must be properly disposed of and must not be treated as ordinary household waste.

7.5 A/C filter

Inspecting and cleaning the A/C filter

Check or clean the A/C filter regularly according to the provisions in the *Warranty and Maintenance Manual*. If the vehicle is running in a dusty environment and the A/C filter is too dirty, it is recommended to replace the A/C filter earlier.

The A/C filter is located inside the glove box on the front passenger side. When removing the A/C filter, it is complicated to remove the parts. In order to avoid unnecessary damage to the parts, it is recommended to check and clean or replace the A/C filter in the GAC Motor authorized shop.

7.6 Replacing bulb

Instructions for replacing bulbs

All vehicle lamps are LED lamps, which cannot be disassembled or replaced individually. If the bulb is damaged or malfunctions, please go to the GAC Motor authorized shop for inspection in time.

⚠ WARNING

It is forbidden to modify external lighting devices and tell-tales.

7.7 Wheels

⚠ WARNING

Within the first 500 km, the road adhesion of new tires is unlikely to reach the best condition. Therefore, the vehicle shall be drove carefully at a moderate speed to prevent accidents.

- **The road adhesion of non-running-in or excessively worn tire is insufficient, which directly affects the braking effect.**
- **If abnormal vibration or deviation of the vehicle is found during vehicle driving, stop the vehicle immediately and check whether the tire is damaged.**
- **If you find uneven and excessive tire wear, go to the GAC Motor authorized shop for inspection as soon as possible.**

⚠ WARNING

If tires burst or leak when the vehicle is running, it is very easy to cause serious traffic accidents.

- **Never use damaged tires and wheels or use tires whose treads have been worn to the wear indicator. Otherwise, it is very easy to cause accidents, because such tires may burst during driving, causing traffic accidents and injuries. Such tires and wheels shall be replaced in time.**
- **The tire pressure must meet the regulations. Otherwise, it may cause an accident. If the tire pressure is insufficient, the vehicle driving at high speed will cause the tire to deflect, and the tire will easily overheat, which may cause tire shelling or tire burst.**
- **Be careful not to expose the tires to chemicals, oil, grease, fuel and brake fluid.**

⚠ WARNING

- **Used wheels and tires of unknown origin should not be used under any circumstances, as such wheels and tires may be damaged without visible damage and may cause loss of control and an accident while the vehicle is in motion.**
- **It is recommended not to use retread tire. As the service life of such tires passes, the carcass may change, and the durability may also be limited and the driving safety may be affected.**

Precautions for wheel failure

- When driving over curbs or similar obstacles, keep a slow speed in the vertical direction of the obstacles as much as possible.
- Do not contact the tire with grease, oil and fuel.
- Regularly check the tire damage (such as cutting, wear, falling off, deformation or bulge).
- Regularly remove debris embedded in the grooves of the tire pattern.

Instructions for storing tires

- Before removing the tire, mark the tire to indicate the rotation direction of the tire, and reset it according to the mark when installing the tire to keep the rotation direction and dynamic balance state of the wheel unchanged.
- Store the removed wheels or tires in a cool, dry place, and preferably in a dark place.
- The tire mounted on the rim must not be stored upright.

New tires and wheels

- Select the new tire and wheel carefully, and make sure that the dimensions, load range, rated speed and structure type of new tire are the same as those of original one.
- Do not replace only one tire separately, but at least replace two tires on the same axle at the same time.
- Do not mix tires of different sizes or types, and do not mix summer, all-season and winter tires.
- After each wheel installation, check whether the wheel bolts are tightened to specified torque (125±10N•m).

Non-full-size spare tires

Spare tires and standard tires are different in aspects such as structure, pattern, speed rating and load index, and can not be exchanged.

After emergency use of the spare tire, it is necessary to drive safely to the GAC Motor authorized shop or wheel repair shop for full-size tire replacement as soon as possible to avoid driving safety hazards caused by long-term use of the spare tire.

⚠ WARNING

- **Spare tires can only be used temporarily for emergency, and the maximum driving speed shall not exceed 80 km/h.**
- **The storage and service life of spare tires is 6 years. It is prohibited to use them beyond the time limit.**

Summer tires

Summer is a rainy season. The tire tread depth directly affects the driving safety in rainy days. There is a high risk of water slip when the summer tire tread depth is less than 3 mm.

Winter tires

Winter tires still have good grip performance when roads are covered with snow and ice. The specially designed rubber tread makes the tires less affected by low temperature environment and excellent braking ability, ensuring driving safety.

- Use winter tires on all the four wheels.
- Use only radial winter tires of same dimensions, load range and rated speed as original ones and approved for this vehicle.

- Please note that the tread of winter tires shall have patterns deep enough (tread depth not less than 4mm; otherwise, the applicability in winter will be limited).
- After installation of tires, check the tire inflation pressure.

⚠ WARNING

- **Winter and summer tires are designed according to their respective typical lane driving conditions under the corresponding seasonal conditions. It is recommended to use winter tires in winter. At low temperatures, the adaptability of summer tires is significantly poorer, thereby losing road adhesion and braking ability.**
- **In severe cold conditions, if the summer tires are used, cracks may appear on the tires, which can completely damage them and cause excessive tire noise and loss of balance.**

⚠ WARNING

- **After using the winter tire, there may be reduced driving traction on dry roads, increased road noise and shortened tread life. Please pay attention to the performance change of the vehicle in terms of maneuvering and braking after the winter tires are used.**
- **Please note that the maximum speed for winter tires is relatively low. Do not exceed the allowable maximum speed for the tires.**
- **Please note that please replace the winter tires with summer tires in time in order to ensure driving safety and performance when driving in the environment at the atmospheric temperature rising above 7°C.**
- **When driving with winter tires, if a spare tire is installed, unstable steering characteristics may occur due to different tires, weakening driving stability. In this case, driving styles need to be adjusted and driving shall be performed carefully.**

Inspecting tire pressure

- Adjust to the tire pressure value applicable to the vehicle according to the tire pressure gauge (the listed pressure values apply to both summer and winter tires). => See page 264
- Unscrew the valve cap (if the valve cap is missing, a new one shall be provided in time).
- A high-quality tire pressure gauge is required to check the tire pressure. It is impossible to determine whether the tire pressure is appropriate only by visual inspection.
- Attach the tire pressure gauge to the valve.
- For inspection of tire pressure, the tire must be in a cold state. When the temperature increases, the tire pressure can be slightly higher than the specified value, and it is not necessary to reduce the tire pressure.
- Balance the weight of occupants and luggage, avoid slopes, and adjust tire pressure according to vehicle load.
- Check the tire pressure of the spare wheel or emergency spare wheel at the same time.
- Install and tighten the valve cap.

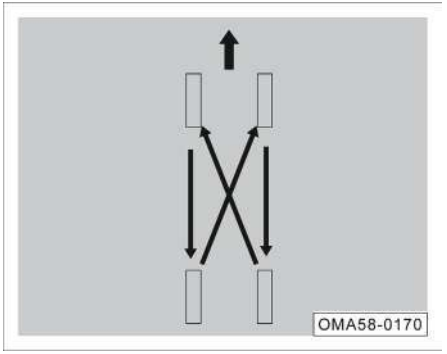
NOTE

- The current tire pressure can be checked through the information on the instrument cluster display.
- Be sure to refit the valve cap to the valve core. The valve cap prevents the ingress of dust and moisture.

WARNING

- **Abnormal tire pressure may cause tire burst, resulting in a traffic accident, injury or even death.**
- **Check the tire pressure at least once a month or before long-distance driving. The tire pressure must meet the specified requirements to prevent accidents.**
- **Insufficient tire pressure will exacerbate tire deflection, and tires are extremely prone to overheating, which may lead to tread separation and tire burst.**
- **Too low or too high tire pressure will cause early wear of the tire and reduce the steering stability of the vehicle.**

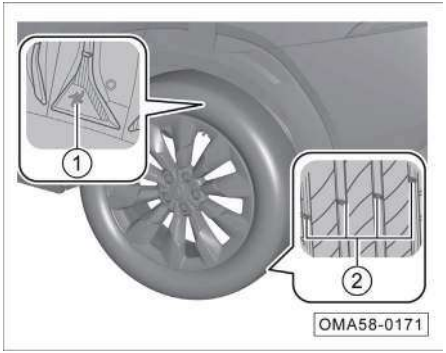
Service life of tires



Service life of tires depends on tire pressure, driving style and tire assembly conditions.

If the front tires are worn more serious than the rear tires, it is recommended to perform tire rotation for the front and rear wheels as shown, so as to make the service life of all tires about the same.

Tread wear indicator



The mark ① is used to indicate the wear condition of the tire outer circle pattern. If the tire outer circle pattern wears to the condition as shown, the tire can no longer be used safely and must be replaced immediately.

The “tread wear indicator mark” ② is 1.6 mm high. If the tread pattern wears to the marked surface, the tire can no longer be used safely and must be replaced immediately.

Wheel balance

The wheels of the new vehicle are balanced, but during operation, the wheels may be unbalanced due to various reasons, which can be manifested by the vibration of the steering mechanism.

Because unbalanced wheels can cause excessive wear on the steering system, wheel suspension mechanism and tires, the wheels shall be rebalanced.

In addition, wheels must be rebalanced after installation of a new tire or tire repair for any wheel.

Wheel misalignment

Inaccurate wheel alignment will cause uneven and excessive tire wear and affect the driving safety. If you find any uneven and excessive tire wear, please go to GAC Motor authorized shop to check the wheel alignment in time.

7.8 Tire chain

In winter, driving in harsh environments such as snowy or icy roads can increase the degree of tire wear or cause other failures. To reduce failures in winter, the following opinions must be followed:

- When driving in deep snow, it is necessary to install tire chains on the tires. If so, be sure to choose an equivalent product whose size and type meet the specifications of the tires on the vehicle. Failure to do this will adversely affect the performance and safety of the vehicle. Moreover, operations such as full-load driving, speeding, emergency acceleration, emergency braking, and emergency turning are potentially dangerous.
- During deceleration, make full use of the engine braking function. Emergency braking on snowy or icy roads will cause the vehicle to flick and slip. Maintain an appropriate safety distance from the vehicle in front, step on the brake pedal slightly, and pay attention to that installing tire chains on the tires can increase certain friction force, but can not prevent side slipping.

NOTE

Different countries or regions have different regulations for tire chains, and the regulations of each country or region should be consulted before assembling tire chains. Do not install tire chains without understanding the laws and regulations of the corresponding country and region that may restrict the use of tire chains.

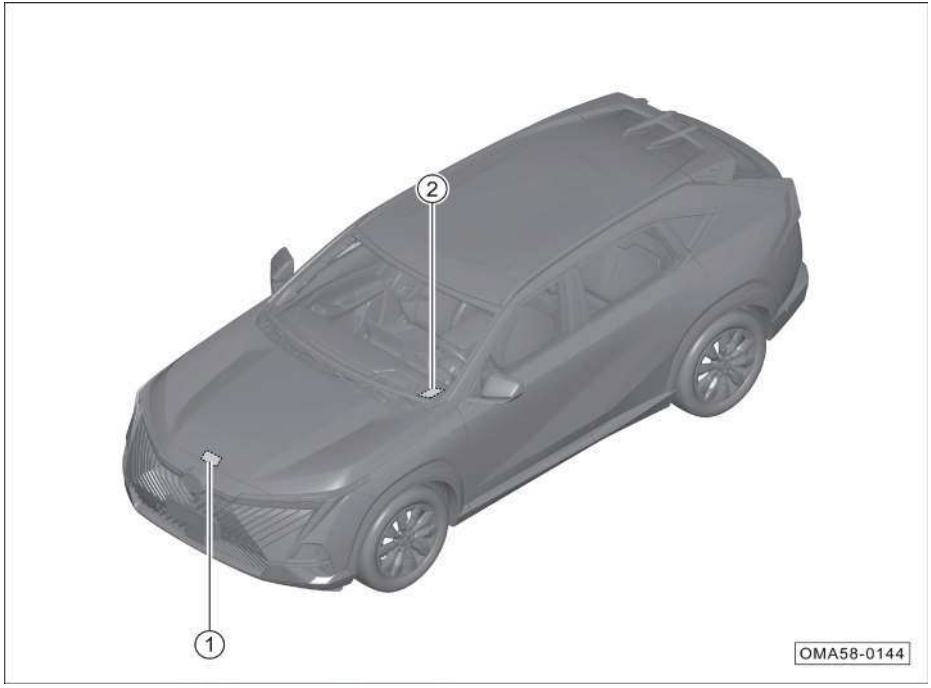
CAUTION

- Install tire chain on the tires to ensure balanced driving in all kinds of weather. It shall be borne in mind that after installation of tire chains, the vehicle may be underpower. Even if the road surface is in good condition, drive carefully. While driving, neither exceed the specified speed limit of tire chains nor exceed 50 km/h, whichever is lower.

CAUTION

- If tire chains are installed on the tires, the size and type of the tire chains shall be consistent with the standard tires on the vehicle, otherwise, the safety and handling of the vehicle will be adversely affected.
- Tire chains must be installed in pairs on the front wheels rather than on the rear wheels.
- Do not install the tire chain on an emergency spare tire. If a spare tire is installed on the front tire and a tire chain is required, be sure to exchange the position of the spare tire with the rear tire.
- Do not use tire chains on dry ground. After driving to snow-free roads, remove tire chains.
- After installing the tire chains as closely as possible to the front tires, drive 0.5~1.0 km, and then tighten the tire chains again.

8.1 VIN



The location of the VIN is as shown in the figure:

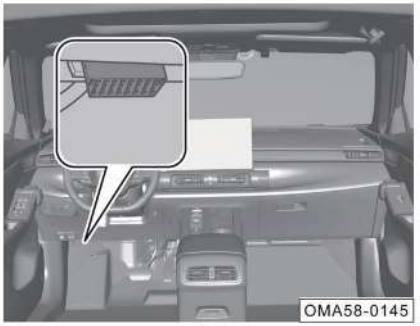
① VIN: on the engine hood

② VIN: on the left side of the instrument panel.

i NOTE

The location indication and quantity of VIN are not complete. Please refer to the actual vehicle.

OBD DLC



The OBD DLC for reading the electronic VIN is located at the lower left of the instrument panel. The electronic VIN and vehicle status information can be read through a special diagnostic scan tool.

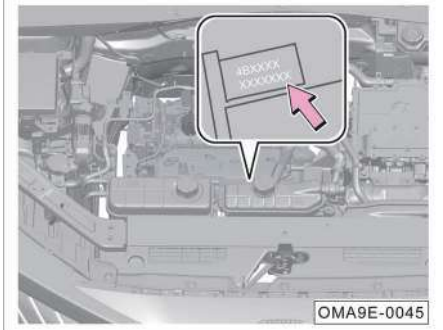
NOTE

If you need to purchase diagnostic scan tool, please go to the GAC Motor authorized shop for consultation and purchase.

Vehicle nameplate

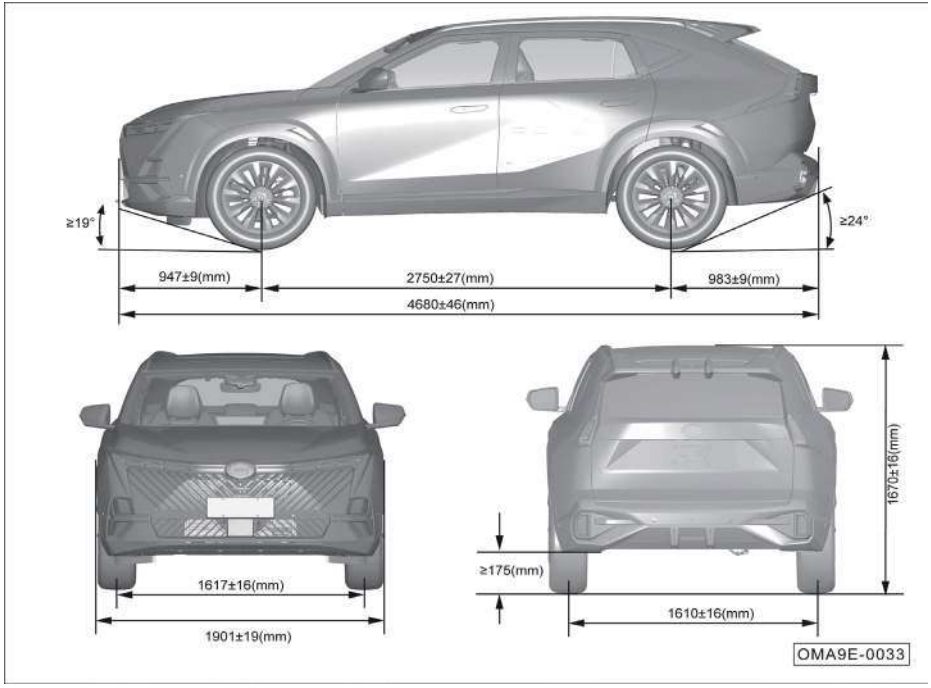
The vehicle nameplate is located at lower part of the right B-pillar. The vehicle nameplate information includes the manufacturer, VIN, vehicle model, brand, engine displacement, engine model, maximum net power of engine, gross vehicle weight rating, seating capacity, date of manufacture and country of manufacture.

Engine model and factory number



Engine model and factory number as arrowed are indicated on the engine block.

8.2 Dimensions & parameters of vehicle



Dimensions

Item		Parameters	
		Value	Unit
Overall length		4680±46	mm
Overall width		1901±19	mm
Overall height		1660±16	mm
Wheelbase		2750±27	mm
Wheel track	Front wheel	1617±16	mm
	Rear wheel	1610±16	
Front overhang		947±9	mm
Rear overhang		983±9	mm
Minimum ground clearance (full load)		≥160	mm
Approach angle (no load)		≥18	°
Departure angle (no load)		≥20	°

Note: Exterior rearview mirrors (one on the right and one on the left) near the junction of the lower end of the A pillar and the front door and the antenna above the rear of the roof are not included in the overall width.

8.3 Vehicle mass & parameters of engine and fluids

Mass

Model	Kerb mass of vehicle (kg)			Gross vehicle weight rating (kg)		
	Kerb mass (kg)	Front axle load	Rear axle load	Gross vehicle weight rating	Front axle load	Rear axle load
GAC6470HEVE6A	1670±50	970±29	700±21	2045	1082	963

Comprehensive parameters

Item	Corresponding model parameters	Unit
	GAC6470HEVE6A	
STT	Non-STT	/
Seating capacity	5	Person
Minimum turning diameter	11.0	m
Maximum gradeability	30	%
Maximum speed	160	km/h
Combined fuel consumption under WLTC	4.76	L/100km

8. Technical data

Parameters of engine

Model	4B20L1
Layout type	Transverse front
Type	Gasoline engine, spark-ignition, in-line, four-cylinder, four-stroke, GDI,
Number of cylinders (pcs)	4
Ignition order	1–3–4–2
Bore (mm)	79
Travel (mm)	102
Displacement (mL)	1999
Compression ratio	(15.6±0.3):1
Rated power/speed (kW/(r/min))	38/4000
Maximum net power/speed (kW/(r/min))	103/6000
Maximum torque/speed (N • m/(r/min))	180/4500
Maximum net torque/speed (N • m/(r/min))	180/4500
Stable idling speed (r/min)	1500±50
Emission level	China VI

Specifications and capacity of fuel/oil/fluid

Item	Specification	Capacity	
Fuel [1)]	The octane number, please refer to the fuel label on the fuel filling cap	Capacity	50L
Engine coolant [2)]	DF-6, -35°C coolant	Capacity	7.8±0.7L
Engine oil	Engine oil grade: API SN Oil viscosity: SAE 0W-20	Total filling volume [3)]	4.3±0.1L
		Change [4)]	4L
Electromechanical coupling transmission fluid	Dexron VI	Total filling volume [5)]	6.9±0.2L
		Change [5)]	5.0±0.2L
Integrated motor coolant	DF-6, -35°C coolant	Capacity	3.8±0.7L
Brake fluid	DOT4	Capacity	0.96L±0.1L
Windshield washer fluid	44% methanol with freezing point of -30°C, and 56% water with hardness not more than 205g/t	Capacity	2.5L
A/C refrigerant	HFC-134a	Capacity	650±25g

Note: 1) Long-term use of fuels with sulfur content higher than the standard value may result in excessive emissions. Please pay attention and use fuels that comply with local standards for vehicles.

2) Including the coolant in the expansion tank and the residual coolant in the engine.

3) The oil capacity for overhaul of engine assembly.

4) Including the oil capacity for replacement of oil filter.

5) Except for special circumstances (such as transmission fluid leakage), it is recommended to add as much as they are drained.

8.4 Specifications of transmission, chassis and lamps

Transmission parameters

Model	H7EF26A
Type	2-Speed DHT
Drive	2WD
Final ratio	3.174
1st gear	1.346
2nd gear	0.859
Reverse gear	3.350

Suspension

Type	Front suspension	Rear suspension
	McPherson, independent	Multi-link freestanding suspension

Drive mode

Drive mode	Front-wheel drive

Wheels

Specifications of rim	7J×18*, 7.5J×19*, 8.0J×20*	
Tire specifications	235/60R18*, 235/55R19*, 245/45R20*	
Tire pressure	Front wheel	Rear wheel
	230kPa	230kPa
Specifications of spare rim	T145/90R17	
Pressure of spare tire	420kPa	

Steering gear

Type	Rack and pinion electric power steering gear
Power steering type	Electric power steering

Brake

Type	X-type double circuit, hydraulic brake, electric booster
Front wheel	Disc brake
Rear wheel	Disc brake
Parking brake	EPB

Dynamic balance of wheels

Designation		Residue dynamic unbalance
Front wheel	Inner side	≤8 g
	Outer side	≤8 g
Rear wheel	Inner side	≤8 g
	Outer side	≤8 g

Free travel of brake pedal

Designation	Parameters
Travel	148mm
Free travel	8mm

Technical parameters of brake linings

Designation	Parameters
Wear limit of front wheel brake lining (excluding the backplate of brake lining)	2mm
Wear limit of rear wheel brake lining (excluding the backplate of brake lining)	2mm

Wheel alignment parameters

Designation		Parameters
Front wheel	Individual toe-in	4′±3′
	Wheel camber	-16′±30′
	Kingpin caster angle	7°12′±45′
	Kingpin inclination angle	12°59′±45′
Rear wheel	Individual toe-in	2′±3′
	Wheel camber	-55′±30′

12V battery

Item		Parameters
Parameters	Rated voltage	12V
	Capacity at 20 hr	45Ah
	Low temperature start current (EN)	350A

Power battery

Item	Parameters
Type	Nickel-cobalt-manganese ternary lithium battery
Model	GACBHEVA9E01
Nominal voltage	349V
Nominal SOC	2.076kWh
Nominal capacity	5.95Ah

8. Technical data

Drive motor

Item	Parameters
Peak power	134kW
Peak torque	300N•m
Max. operating speed	14900r/min
Operating voltage range	220~420V

Integrated MCU

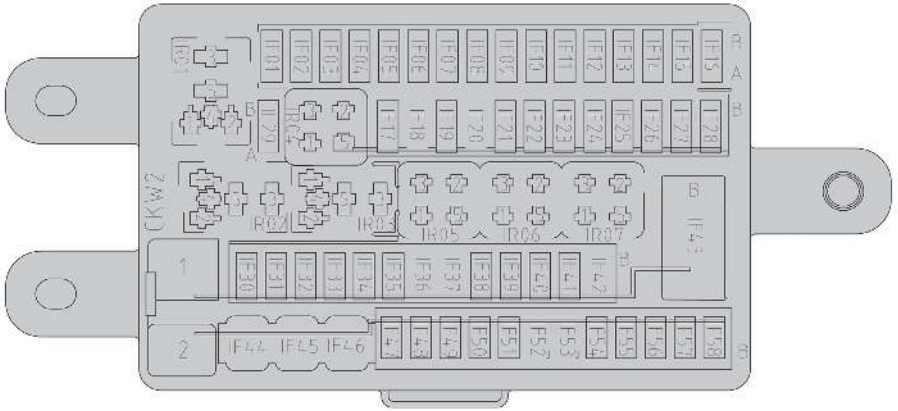
Item	Parameters
Model	8722DSV000/KTZ35X51YP02
Cooling method	Water-cooled
Control method	Vector control method

Lamps

Lamps	Model	Power
High beam	LED	/
Low beam	LED	/
Daytime running lamp *	LED	/
Front turn signal lamp	LED	/
Front position lamp	LED	/
Rear fog lamp	LED	/
Side turn signal lamp	LED	/
Brake lamp	LED	/
Rear position lamp	LED	/
High-mounted stop lamp	LED	/
Rear turn signal lamp	LED	/
Reverse lamp	LED	/
LICENSE LAMP	LED	/
Front roof lamp	LED	/
Rear dome lamp	LED	/
Trunk lamp	LED	/
Smart ambient light*	LED	/

All vehicle lamps are LED lamps. For replacement => See page 251.

8.5 Fuse specifications



Fuse in instrument panel PDU

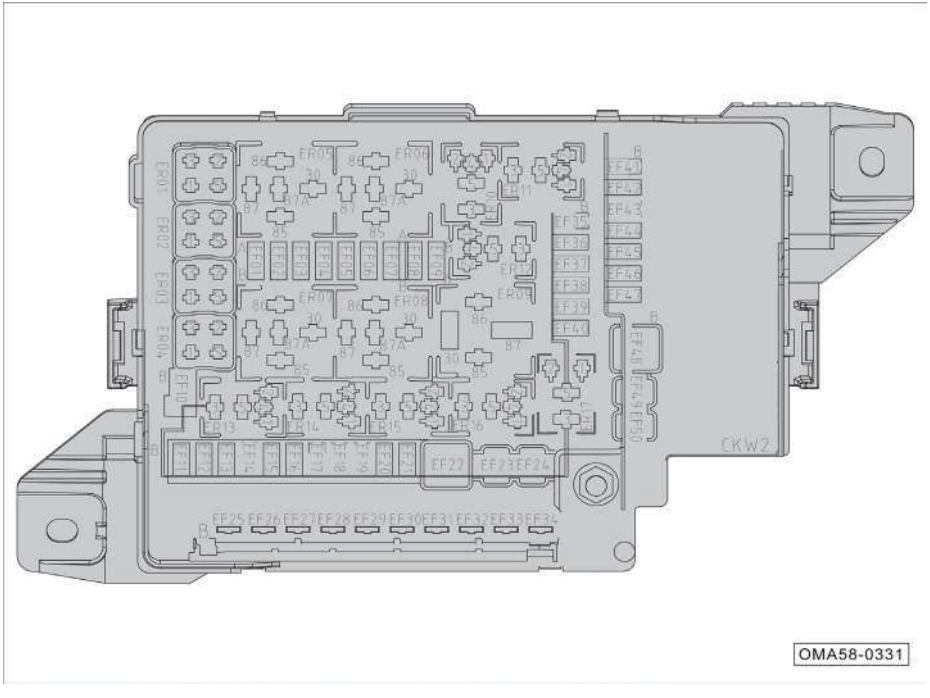
The fuses may slightly vary from vehicle to vehicle. In this regard, the actual vehicle shall prevail.

No.	Rated value	Feature/component
IF01	20A	Front 12V power outlet
IF02	7.5A	IBCM
IF03	7.5A	ACU/GWM
IF04	7.5A	Rear USB port
IF05	20A	USB_TYPE_C port
IF06	—	—
IF07	7.5A	GWM/T-BOX ECU*
IF08	20A	ACU
IF09	20A	Left front seat connector(VSM power supply)
IF10	7.5A	AV display/RLS/left rear BSD main sensor*/right rear BSD main sensor*
IF11	10A	HVAC ECU/GWM/mobile phone WCM*/left front seat connector (VSM power supply)
IF12	—	—
IF13	7.5A	Defogger relay (ER07)/IBCM/blower relay (ER05)
IF14	20A	IBCM
IF15	10A	HUD*/instrument cluster*
IF16	—	—
IF17	10A	SRS ECU
IF18	7.5A	ECM

No.	Rated value	Feature/component
IF19	7.5A	GWM/T-BOX ECU*/instrument cluster/IBCM (IG1 power supply feedback)
IF20	7.5A	EPB ECU/brake switch
IF21	7.5A	EPB ECU/IBC
IF22	7.5A	EPS ECU/GSM/GSM/plasma generator*/HVAC ECU
IF23	7.5A	Panorama sunroof sunshade motor*/left front seat connector (HVSM power supply)
IF24	7.5A	VCU/AVAS/BMS/IMCU/DCDC converter/oil pump MCU
IF25	7.5A	Left instrument panel switch block/air quality sensor*/right front combination lamp/left front combination lamp
IF26	7.5A	RPA ECU*/ACU/HUD*
IF27	—	—
IF28	—	—
IF29	—	—
IF30	—	—
IF31	20A	IBCM
IF32	10A	RF receiver module*/wireless charging lift control module*/PLGM*
IF33	20A	IBCM (door lock power supply)
IF34	10A	GSM/LDW ECU

No.	Rated value	Feature/component
IF35	7.5A	GWM
IF36	15A	IBCM (turn signal lamp power supply)
IF37	30A	IBCM/HUD*/instrument cluster
IF38	10A	Instrument panel switch block - right/instrument panel switch block - left/EPB switch
IF39	—	—
IF40	20A	IBCM
IF41	7.5A	Driver OBD DLC 1/front passenger OBD DLC 2
IF42	20A	IBCM
IF43	Dark current switch	ACU/left front seat connector (VSM power supply)*/AV display/RLS/left rear main BSD sensor*/right rear main BSD sensor*/HVAC ECU/GWM/mobile phone WCM*/T-BOX ECU*
IF44	30A	Power liftgate module *
IF45	30A	Right front door control module
IF46	30A	Left front door control module
IF47	—	—
IF48	—	—
IF49	—	—
IF50	10A	IG2 power supply
IF51	20A	Left front seat connector (front seat control unit) *
IF52	20A	Right front seat connector (seat adjusting switch) *

No.	Rated value	Feature/component
IF53	15A	IBCM
IF54	—	—
IF55	—	—
IF56	15A	Panorama sunroof sunshade motor
IF57	—	—
IF58	—	—
IR01	—	ACC relay
IR02	—	Lock-up relay 1
IR03	—	Lock-up relay 2
IR04	—	IG1 relay
IR05	—	—
IR06	—	—
IR07	—	IG2 relay



Fuse in engine compartment PDU

The fuses may slightly vary from vehicle to vehicle. In this regard, the actual vehicle shall prevail.

No.	Rated value	Feature/component
EF01	—	—
EF02	—	—
EF03	—	—
EF04	10A	Cooling fan module
EF05	10A	VCU
EF06	15A	Electric water pump (drive motor)
EF07	7.5A	Left exterior rearview mirror*/right exterior rearview mirror*
EF08	—	—
EF09	—	—
EF10	7.5A	Electronic expansion valve (A/C side)/electronic expansion valve (battery side)
EF11	—	—
EF12	15A	Horn relay (ER03)/horn
EF13	—	—
EF14	7.5A	MRR
EF15	20A	Left front combination lamp
EF16	20A	Fuel pump
EF17	20A	Front wiper motor/wiper speed control relay (ER11)/wiper relay (ER12)
EF18	7.5A	Brake switch
EF19	7.5A	Main relay (ER17)/ECM
EF20	30A	Right front combination lamp
EF21	10A	DCDC converter

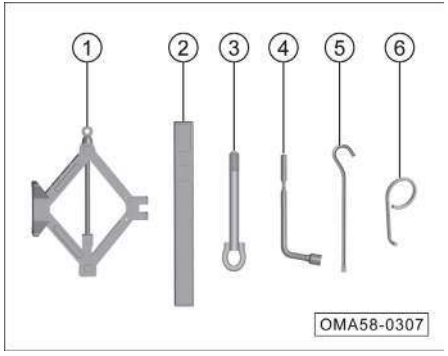
No.	Rated value	Feature/component
EF22	60A	Instrument panel PDU
EF23	60A	IBC
EF24	30A	IG1 power supply
EF25	30A	EPB ECU
EF26	40A	ACC power supply
EF27	40A	Blower
EF28	40A	Rear windshield defogger heater/left exterior rearview mirror*/right exterior rearview mirror*
EF29	50A	ACU*/left front seat connector (VSM)*/AV display/RLS*/left rear main BSD sensor*/right rear main BSD sensor*/HVAC ECU/GWM/mobile phone WCM*/T-BOX ECU*
EF30	—	—
EF31	—	—
EF32	60A	Instrument panel PDU
EF33	60A	Electronic water pump assembly (engine)
EF34	80A	EPS ECU
EF35	10A	Fuel pump relay (ER14)
EF36	15A	Ignition coil 1/ignition coil 2/ignition coil 3/ignition coil 4
EF37	15A	ECM
EF38	10A	Upstream oxygen sensor/downstream oxygen sensor

No.	Rated value	Feature/component
EF39	10A	Canister solenoid valve/oil pump solenoid valve/oil control valve (exhaust)/phase driver (intake) /PCV heater/PCV heater relay (ER01)
EF40	7.5A	Fuel EVAP leak diagnostic module
EF41	30A	Phase driver (intake)
EF42	15A	Protection relay (ER16)/VCU main relay (ER04)/ electromechanical coupling transmission/VCU
EF43	30A	Cooling fan module/VCU/electric water pump (drive motor)
EF44	—	—
EF45	7.5A	A/C compressor
EF46	10A	VCU
EF47	10A	IMCU/BMS
EF48	40A/60A	IBC
EF49	30A	EPB ECU
EF50	60A	Oil pump motor ECU
ER01	—	PCV heater relay
ER02	—	—
ER03	—	Horn relay
ER04	—	VCU main relay
ER05	—	Blower relay
ER06	—	—
ER07	—	Defogger relay

No.	Rated value	Feature/component
ER08	—	—
ER09	—	—
ER10	—	—
ER11	—	Wiper speed control relay
ER12	—	Wiper relay
ER13	—	—
ER14	—	Fuel pump relay
ER15	—	—
ER16	—	Protection relay
ER17	—	Main relay

9.1 Driver's tools and spare tire

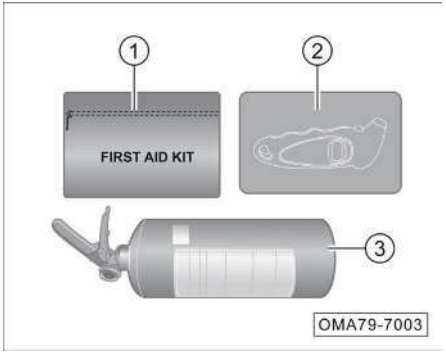
Driver's tools



The following tool kit provided by the vehicle shall be placed in the trunk. After use, they shall be cleaned in time and put back to the original position.

① Jack
② Warning triangle
③ Towing hook
④ Wheel bolt removal wrench
⑤ Special wrench for jack
⑥ Hub trim cover removal tool*

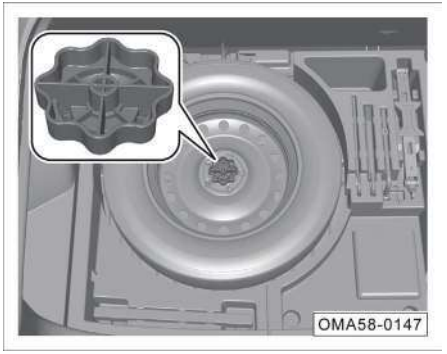
First aid kit*



The first aid kit of this vehicle includes:

① Medical kit: The medical kit contains trauma emergency medical supplies (e.g. medical gauze package, medical adhesive tape, medical ventilated bandage, triangular bandage, iodine swabsticks, dressing tweezers, safety scissors) for stopping bleeding and dressing, which are used for trauma emergency treatment.
② Tire pressure gauge: Used to measure tire pressure.
③ Portable dry powder fire extinguisher: Used for emergency fire extinguishing in case of fire in the vehicle.

Spare tire



Remove the spare tire:

- Open the liftgate.
- Lift the trunk carpet.
- Unscrew the central handwheel of the spare tire counterclockwise to take out the spare tire.

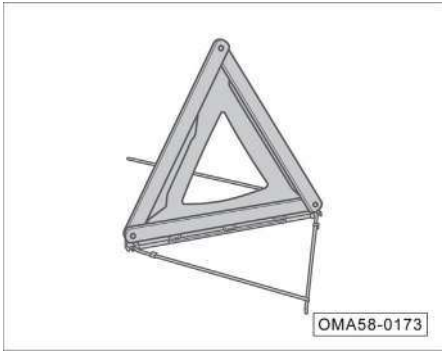
NOTE

The spare tire has been inflated, and its tire pressure shall be checked regularly to ensure that it is at the specified maximum pressure, and multiple inspections shall be carried out within 1 year.

WARNING

- **Use the spare tire in strict accordance with the use requirements to avoid danger.**
- **It is strictly forbidden to install and use more than one spare tire at the same time.**
- **Do not use spare tire that has been damaged or worn to the limit.**
- **The storage and service life of spare tires is 6 years. It is prohibited to use them beyond the time limit.**
- **The tire pressure shall be checked as soon as possible after the spare tire is installed to make it within the specified range.**
- **The maximum speed of spare tires must not exceed 80 km/h, and sharp acceleration and emergency braking shall be avoided.**

9.2 Use of warning triangle



- Open the liftgate.
- Lift the trunk floor.
- Take out the warning triangle and use it.

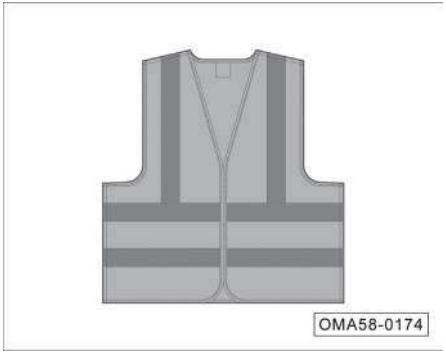
Placement distance

Ordinary highway		Expressway
Daytime	Night	
≥50 m	≥80 m	≥150 m

CAUTION

The data above is for reference only. Please place the warning triangle at the distance specified by traffic regulations.

9.3 Use of reflective vest



- If the vehicle needs to stop due to an accident or other faults, take out the reflective vest from the glove box and wear it neatly before getting off to check and deal with the vehicle faults.

i NOTE

- While handling vehicle accidents, be sure to wear a reflective vest as required to attract the attention of passersby or other drivers regardless of the lighting conditions.
- After using the reflective vest, please store it in the glove box properly. If necessary, clean it according to the indication on the collar mark to maintain the reflective performance.

9.4 Replacing flat tires

Preparations

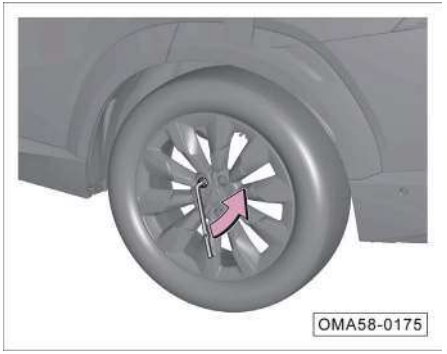
- Apply the parking brake.
- Set the gearshift lever to the P position.
- Set the ENGINE START/STOP button to the “OFF” position and turn on the hazard warning lamp.
- Place a warning triangle in a suitable position behind the vehicle.
- Find a suitable object to wedge the wheel diagonally opposite to the wheel to be replaced to prevent the vehicle from moving.
- Take out the driver’s tools and spare tire.

⚠ WARNING

- **Relevant regulations must be strictly followed.**
- **All occupants must leave the vehicle and wait in a safe position.**

Unscrewing the wheel bolts

- For models equipped with wheel hub trim cover*, remove the trim cover before removing the wheel. Use the wheel hub trim cover removal tool* to pry off the trim cover from the small hole.

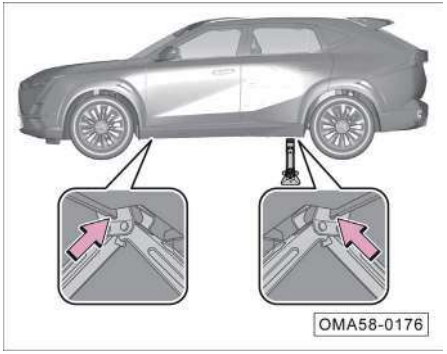


Set the wheel bolt removal wrench firmly on the wheel bolt, and unscrew the wheel bolts counterclockwise.

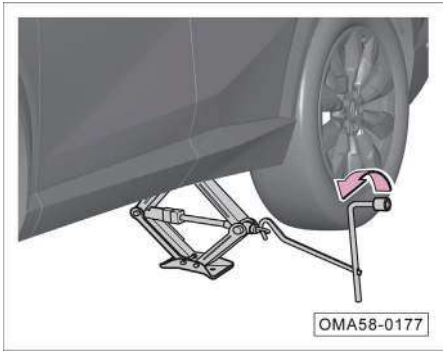
CAUTION

Loosen the wheel bolts just one turn before lifting the vehicle. After lifting the vehicle, unscrew the wheel bolts completely and remove the flat tire.

Lifting the vehicle



- Place the jack directly under the spine closest to the flat tire.
- Extend the jack high to ensure that the groove of the jack can engage with the spine.
- Check whether the jack is stable and tightly attached to the ground.



- Assemble the wheel bolt removal wrench, the special wrench for jack and the jack.
- Extend the jack clockwise and lift the vehicle to make the tire leave the ground.

⚠ WARNING

Improper use of jack will cause serious injury.

- **The jack must be used on a hard and flat ground, and a hard pad (height not more than 1cm) can also be placed under the jack as needed.**
- **Strictly observe the precautions for jack operation.**
- **If there is a towing trailer, the trailer must be separated from the vehicle.**
- **Observe the status of the vehicle continuously during the lifting. If the vehicle body is noticeably tilted, stop the lifting, identify the problem, and then lift the vehicle after solving the problem.**

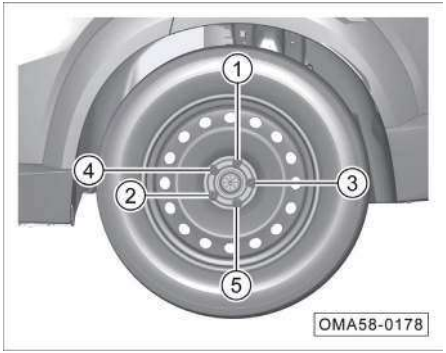
⚠ WARNING

- **The jack on the vehicle can only be used to lift the vehicle rather than other heavy objects or vehicles.**
- **When the jack is used, do not start the engine, otherwise an accident will occur.**
- **When lifting the vehicle with a jack, remember not to place any part of the body under the vehicle to avoid accidents.**
- **If it is required to work under the vehicle, be sure to place a suitable protective support under the vehicle.**

Removing the flat tire

- Unscrew the loosened wheel bolts with a wheel bolt removal wrench when the vehicle is lifted.
- Remove the flat tire.

Installing spare tire



- Install the spare tire to the vehicle.
- Install all the wheel bolts, and pre-tighten them using the wheel bolt removal wrench according to the sequence ①~⑤ as shown in the figure.
- Give a verbal warning, and after confirming that nobody is around the car, rotate the jack wrench counterclockwise to lower the vehicle.
- Tighten all wheel bolts using the wheel bolt removal wrench.
- In order to avoid the noise of the vehicle during driving later on, please remember the locations of various tools, put them back in place after use and fix them.

CAUTION

After installing the wheel, please go to the GAC Motor authorized shop in time to check the tightening torque of the wheel bolts (125 ± 10N•m). Otherwise, the bolts may be loose while the vehicle is running, easily causing traffic accidents.

⚠ WARNING

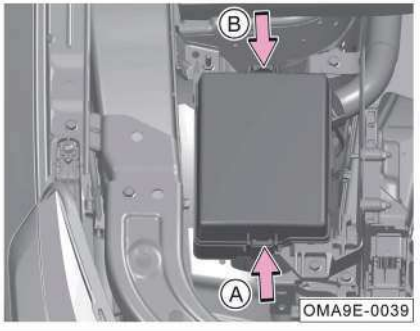
- **The thread on the wheel bolt and the hub must be kept clean and free from adherent matters such as grease so that the bolt is easy to tighten.**
- **For replacement of a tire, if the bolts are rusted or difficult to be tightened, they must be replaced and the thread hole cleaned.**
- **When the spare tire is not in use, it must be reliably fixed at the spare tire mounting position.**

9.5 Fuse

Instrument panel PDU

- Remove the left lower guard of the instrument panel (shaded part with dotted lines) to expose the fuse above the instrument panel PDU.

Engine compartment PDU

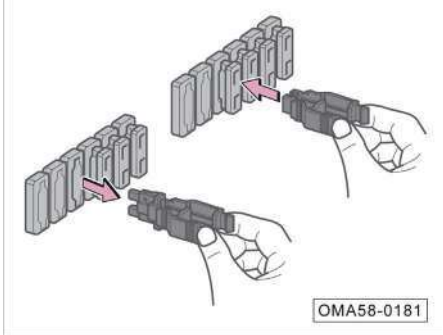


- Open the engine hood.
- Press the fixing clip in the direction of arrows A and B to completely unlock the PDU, and then remove the PDU cover.
- The fuse above the engine compartment PDU is exposed when the cover of the PDU is removed.

⚠ WARNING

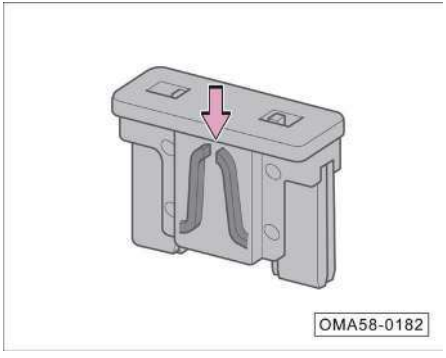
Do not use high-pressure water gun to flush the engine compartment fuse box.

Replacing fuse



- Pull out or install the fuse using the fuse puller in the engine compartment PDU.

Blown fuse



- If the fuse is blown (as arrowed), it is recommended to replace it with a new fuse of the same color and identification in a GAC Motor authorized shop.

NOTE

Some electrical consumers may be equipped with multiple fuses each, or multiple electrical consumers may share a single fuse.

CAUTION

- Turn off all electrical equipment before replacing the fuse.
- If you need to replace the fuse, please consult the GAC Motor authorized shop.

WARNING

- **Fuses must not be reused.**
- **Do not use fuses rated above the specified current value, otherwise it will damage other parts of the electrical system.**
- **Using unsuitable or patched fuse can cause short circuit or even fire.**
- **The color and logo of the replaced fuse must be exactly the same as the original one.**
- **Do not replace fuse with metal sheets, paper clips, etc.**
- **The PDU must be kept clean inside. Pay attention to protection against moisture.**

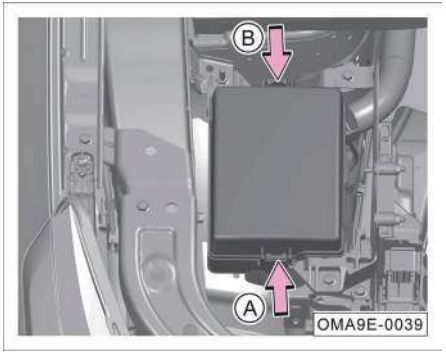
9.6 Emergency start

Jumper cable

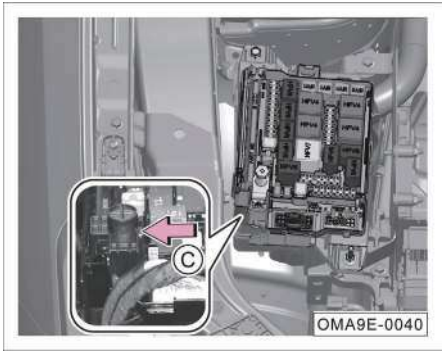
If the vehicle's battery is depleted, you can start the vehicle following steps below or contact the GAC Motor authorized shop.

⚠ WARNING

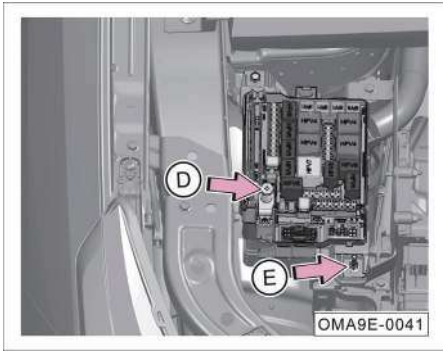
- **The engine compartment is a high-risk area, and improper operation can easily lead to casualties.**
- **Be sure to carefully read and follow the safety warning instructions before starting the battery operation.**



1. Open the engine hood, find the harness fuse box at the right wheel, press the fixing clip in the direction of arrows A and B to completely unlock the PDU, and then remove the PDU cover.



2. Open the positive cover by pushing the clip indicated by arrow C.



3. Connect the clip of the positive jumper cable to the dedicated jump start terminal of ego vehicle as indicated by arrow D, and connect the other end to the positive terminal of the battery of another vehicle. Connect the clip of the negative jumper cable to the ego vehicle as indicated by arrow E, and connect the other end to the negative terminal of the battery of the other vehicle.
4. Start the engine of the vehicle with power battery and let it idle. Then, start the engine of the vehicle with the depleted battery till the instrument cluster displays “READY”.

NOTE

- Due to natural discharge and the wear-out effect of certain electrical consumers, the power stored in the battery is gradually depleted even when the vehicle is not in use. If the vehicle is not in use for an extended period of time, the battery may become depleted and the vehicle may not be started. (The battery is automatically charged when the hybrid system is operating.)
- After charging the battery, the first attempt to start the vehicle may not be successful, but the vehicle will be started normally after the second attempt, which is not a malfunction.
- If the instrument cluster prompts that the motor drive system or generator system is faulty after the vehicle battery boosting, it may be caused by that the MCU reports a fault due to power loss. Start the vehicle via battery boosting. When the instrument cluster displays “READY” for 5min, power off the vehicle and wait for 1min (do not open or close the door) or connect and disconnect the negative terminal of the battery (this operation is faster, but requires a small tool) to eliminate the alarm prompt shown on the instrument cluster.

CAUTION

- Use the dedicated jump start terminal as indicated by arrow D for emergency charging of the 12V battery via another vehicle.
- While connecting the batteries of two vehicles, be sure to first connect the positive terminal and then the negative terminal.
- Properly place the jumper cable to avoid contact between the cable and the moving parts of the engine.

WARNING

- **It is prohibited to use the 12V battery of the ego vehicle for jump start of other vehicles.**
- **Since there are multiple terminals in the fuse box, please operate with caution to avoid damaging the electrical components due to wrong connection of terminals.**

⚠ WARNING

- **Ensure that the headlamps are off before removing the jumper cable.**
- **Turn on the blower and rear windshield heater of the vehicle with the depleted battery to reduce the voltage peak generated when the cable are being removed.**
- **Remove the jumper cables with the engine running in the reverse order.**

⚠ WARNING

Improper use of jumper cable may cause battery explosion and serious injury to personnel.

- **The voltage of the power supply battery must be the same as that of the depleted battery, and the capacity of the two batteries must be the same as much as possible. Otherwise, it may cause an explosion.**
- **Do not expose the battery to open fire, and beware of explosion.**
- **Do not connect the negative cable directly to the negative terminal of the battery without power. There shall be no static electricity near the battery. Otherwise, the combustible gas produced by the battery may be ignited by sparks, causing an explosion accident.**
- **Do not connect the negative cable to the fuel system component or brake pipeline, and do not bend over to the battery during operation to avoid being burned by acid.**

⚠ WARNING

The jumper cable should be correctly connected to the positive and negative battery terminals according to the above instructions. It should not be connected to other parts of the battery; otherwise, it may cause fuse ablation or partial function failure of the vehicle, which will not be covered by the warranty.

9.7 Vehicle towing

If the vehicle needs to be towed, it shall be towed by the GAC Motor authorized shop or a professional towing company.

It is recommended to use a rollback tow truck for towing. If the conditions can not be met, a wheel-lift truck can also be used for towing the vehicle as appropriate.

Being towed by a rollback tow truck

OMA58-0184

Being towed by a wheel-lift truck from the front

OMA58-0185

- Place a dolly under the rear wheels.

Being towed by a wheel-lift truck from the rear

OMA58-0186

- Place a dolly under the front wheels.

Emergency towing

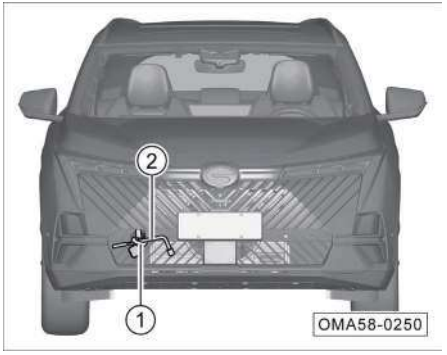
If it is impossible to find a tow truck in an emergency, fasten the towing cable or towing chain in the emergency towing ring to temporarily tow the vehicle. However, this method is only suitable for low speed and short distance towing on a solid and flat road.

⚠ WARNING

In emergency towing, drive slowly to avoid violent operation. Excessive towing force will damage the vehicle.

Installing a towing hook

- Pry off the towing hook cover in the arrowed position using a slotted screwdriver wrapped with a cloth.



- Take out the towing hook ① and wheel bolt removal wrench ② from the driver's tool kit in the trunk.
- Screw the towing hook ① clockwise into the thread hole.
- Insert the wheel bolt removal wrench ② into the round opening of the towing hook, and turn the wheel bolt removal wrench clockwise to make the towing hook be firmly screwed into the thread hole.

Precautions for towing

Before emergency towing, be sure to follow the instructions below:

- Hazard warning lamps of both towing and towed vehicles must be turned on, and local traffic regulations must be complied with.
- The towing hook must be firmly tightened in the thread hole. Otherwise, the towing hook may slip out of the thread hole during towing.
- The towed vehicle must be shifted into “N”.
- For the towed vehicle, set the ENGINE START/STOP button to the “ON” position and turn the steering wheel back and forth to confirm that the steering wheel can be turned.

During the emergency towing, be sure to follow the instructions below:

- Start the engine and drive at a slow speed till the towing rope is tight and then perform acceleration slowly.
- Be sure to drive steadily, and do not accelerate, decelerate, or turn the vehicle sharply.
- For towing, the towed vehicle shall be braked earlier than normal conditions, with the brake pedal lightly depressed.
- During towing, the towing rope must always be in a tight state.

9.8 Getting out of a trap

If the vehicle is stuck on a soft road such as sandy, muddy or snowy road, follow the steps below to get out of a trap:

1. Observe the areas in front of and behind the vehicle to ensure that there are no obstacles.
2. Turn the steering wheel to the left and to the right to grind areas around the front wheels to remove mud, snow or sand trapped around the tires.
3. Place wooden blocks, stones or other materials to help increase tire friction.
4. Start the engine and accelerate the vehicle slowly to get the vehicle out of the pit.
5. If the vehicle still can not get out of the trap after attempts for several times, it is required to have a tow truck for rescue.

i NOTE

In the acceleration process, human assistance can be provided to push the vehicle from the front and rear for driving the vehicle out of the trap.

9.9 Operation guide for hybrid system fault

Fault symptoms

1. Text reminder “System fault, please contact us for inspection.”
2. The vehicle cannot be started.
3. The instrument cluster sounds an alarm and the hybrid system fault indicator lamp comes on
4. Text reminder “Stop the vehicle safely, please contact us for inspection.”
5. The vehicle enters “Travel with Reduced Power” mode or the vehicle loses power and the vehicle speed is limited.

If the any of above phenomenon occurs, please pull over and turn on the hazard warning lamps, turn off the vehicle, and wait for about 2min before trying to start the vehicle. If the fault still exists, please contact the GAC Motor authorized shop for inspection immediately.

If the instrument cluster shows “Stop safely, and leave the vehicle urgently!” When the text message is shown, please do not try to start the vehicle again, leave the vehicle immediately, and contact the GAC Motor authorized shop for inspection in a timely manner.

Hybrid system overheating

- The following cases may indicate that the hybrid system has overheated or the system overheating has occurred:

a. The vehicle output power drops significantly.

b. The instrument cluster shows text “Please check the temperature control system”.

c. If you find coolant or steam spurting out of the radiator or expansion tank, shut down the vehicle immediately. If there is no coolant or steam coming out, keep the vehicle running and make sure the cooling fan is working.

- If the hybrid system overheats, proceed as follows:

a. Pull over immediately and turn on your hazard warning lamps.

b. Shift to “P” and apply the parking brake.

c. Please do not open the engine hood immediately. Wait until steam no longer comes out before opening the engine hood.

d. If the instrument cluster still shows text “Please check the temperature control system”, please contact the GAC Motor authorized store for inspection.

Low SOC reminder

- This message may appear during running of the vehicle under adverse working conditions. (For example, driving up a long steep slope.) If “Low SOC” is displayed, please drive the vehicle gently or park the vehicle, shift to P, apply the parking brake, and wait for a few minutes so that the engine can charge the battery through the motor.

Insufficient fuel, please refuel before starting

- When the fuel level in the fuel tank is low, the instrument cluster will show text “Insufficient fuel, please refuel before starting.” After the instrument cluster shows text, do not frequently try to start the vehicle, but refuel the vehicle before starting.

Please check the intake grille

- After the instrument cluster shows the text “Please check the intake grille”, please turn off the vehicle, shift to P, apply the parking brake, and check whether there is any foreign matter stuck in the intake grille. If you can handle it by yourself,

restart the vehicle after handling. If the text reminder does not disappear, please shift to P, turn off the vehicle, and contact the GAC Motor authorized shop for inspection in time.

Please check the 12V low voltage system

- After the instrument cluster shows the text “Please check the 12V low voltage system”, please pull over and shift to P, and contact the GAC Motor authorized shop for inspection in time.

Vehicle collision

- The high-voltage system may be shut down and the high-voltage current will be cut off in an emergency after a collision to minimize the risk of current leakage. If the vehicle cannot be restarted, please contact a GAC Motor authorized shop for inspection in time.

This manual describes related information of entire GAC Motor series, including their configuration, functions, performance parameters and product schematic diagrams. Its content is valid when allowed to be printed. However, the actual configuration and function of the vehicles are subject to the specific vehicles delivered. If there is any difference between the schematic diagrams and the specific vehicle delivered, the actual vehicle shall prevail.

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