



**GS4**  
MAX

# Owner's Manual

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. Through this manual, you can fully understand the operation methods and precautions of the car. Proper operation of the car can improve driving safety and prolong the service life of the car.

The Warranty and Maintenance 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 car for future reference.

If you are not sure about any points in this manual, please contact the GAC Motor authorized shop for detailed explanation.

If you have any suggestions or comments, please contact GAC Motor Co., Ltd. or GAC Motor authorized shop.

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

GAC Motor Co., Ltd.

## Safety Instructions

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

In order to make clear the safety precautions, we indicate the operation steps and precautions through the various signs on the car 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 car 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 symbols , ,  and warning words including "WARNING", "CAUTION" or "NOTE" in front.

 **Warning** Important notice that may cause personal casualties.

 **CAUTION** Important notice that may cause vehicle damage.

 **NOTE** General instructions of which the nonobservance could not cause injuries.

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

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◆ **Observe traffic regulations**

Limit the vehicle speed, avoid overspeed and overload, and pay attention to giving way to pedestrians.

◆ **Fasten the seat belt correctly**

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

◆ **Child safety in the vehicle**

When there is a child in the vehicle, the child safety seat shall be used correctly.

Do not leave children alone in the vehicle to avoid casualties due to misoperation or high temperature in the vehicle.

**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.

Do not allow a child to sit in the front passenger's seat. Otherwise, in the event of an accident, the strong impact force generated by the airbag deployment will cause serious injury to children.

◆ **Keep sober-minded during driving**

Keep sober-minded during driving. Do not drive the vehicle after drinking alcohol or taking drugs with side effects such as sedation, drowsiness, fatigue, headache, blurred vision, etc. Otherwise, your ability to control the vehicle will be affected, resulting in accidents and casualties.

◆ **Pay attention to driving safety**

Do not rely too much on the driving assistance function. The driver should always keep focused, otherwise a traffic accident or even personal injury may be caused due to momentary negligence.

**Regular maintenance**

Please carry out regular maintenance according to the interval specified in the Warranty and Maintenance Manual to avoid damage to the vehicle due to long-term omission of maintenance.

Please use the fluids recommended in this manual and carry out maintenance as required, in order to prolong the service life of the vehicle.

◆ **Exhaust gas hazard**

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

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. After the engine is started, drive away from the confined space immediately.

## 1. Important safety precautions

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### 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 for assistance in 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.

### Possible uses of EDR data

The data recorded by EDR helps better understand the situation in the event of a collision and personal injury, and is used to assist in accident analysis.

Except for the following circumstances, GAC Motor will not disclose the data recorded in the EDR to third parties:

- **Reaching an agreement with the owner (or the lessee of the rental vehicle).**
- At the official request of the police, courts or government authorities.
- If necessary, the data will be used in research on vehicle safety performance.

### How to obtain EDR data reading tool

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

### How to read data on EDR controller

To read the data in the event data recorder (EDR), professional tools are required, and the operation process is complicated. Please consult the GAC Motor authorized shop.

### Unlocked event overwriting mechanism and overwriteable event types

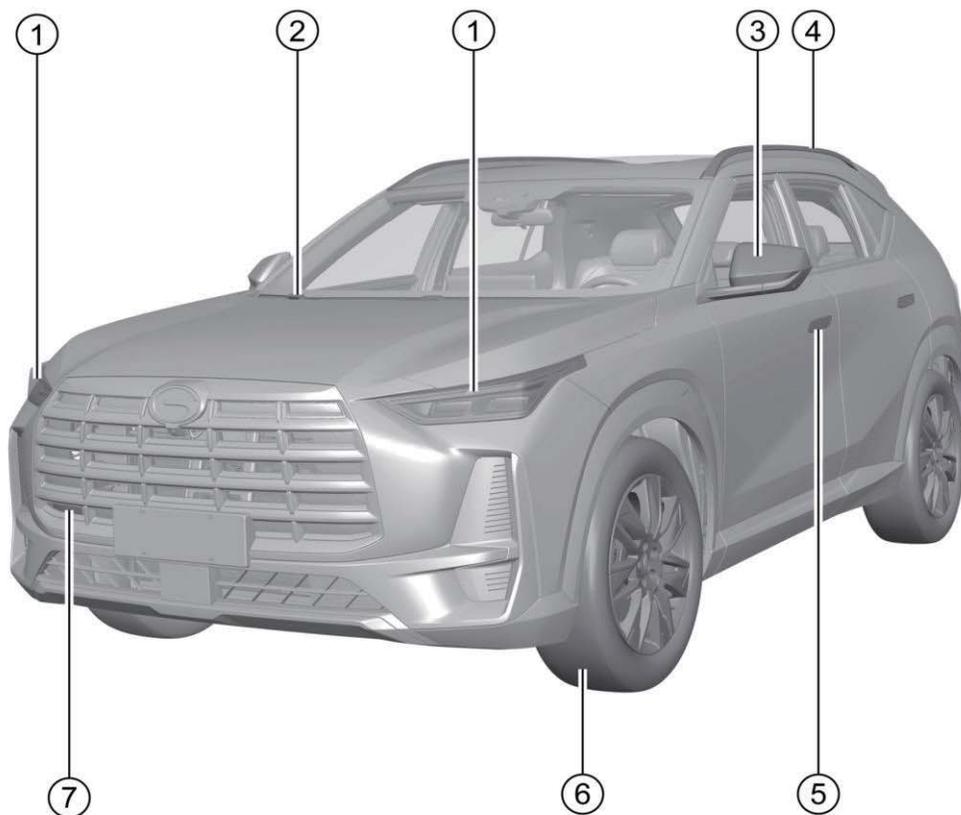
The current event can overwrite the previous unlocked event data, but the

locked event data cannot be overwritten by the data of subsequent events;

Overwriteable events (i.e., unlocked events) include:

- Event in which the irreversible restraint device is not deployed;
- Event in which the vehicle speed change in the X-axis direction within 150 ms is less than 25 km/h.

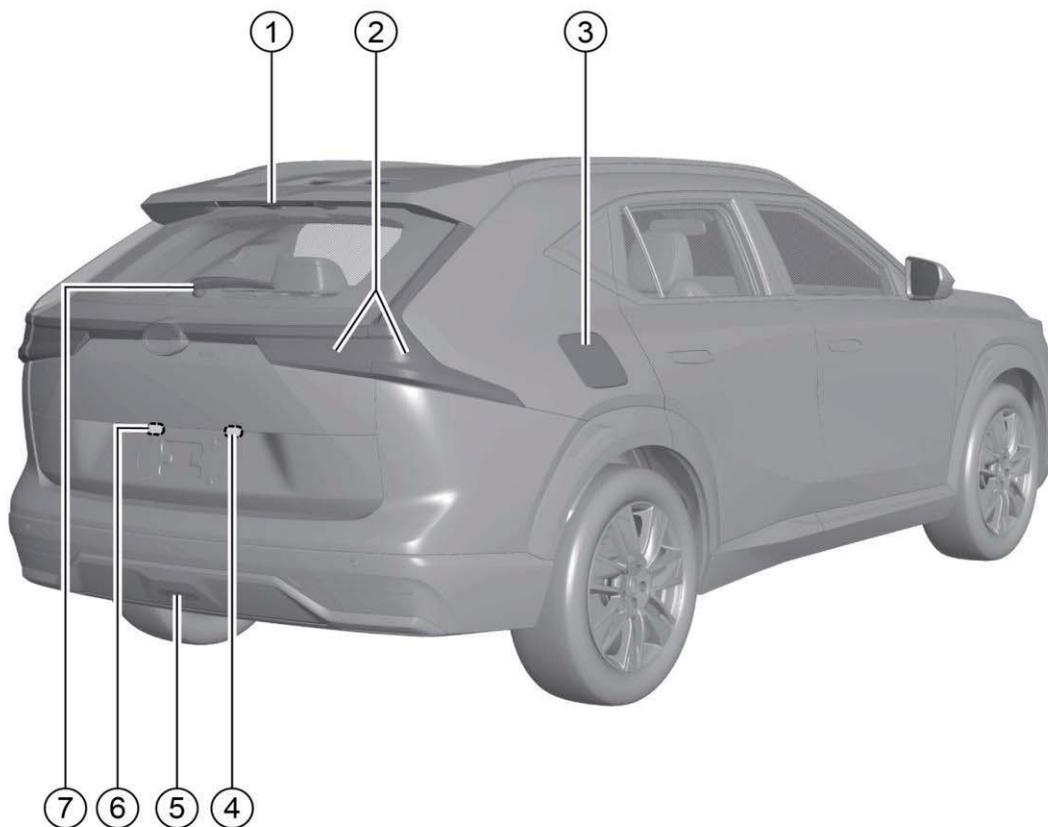
## 2.1 Exterior



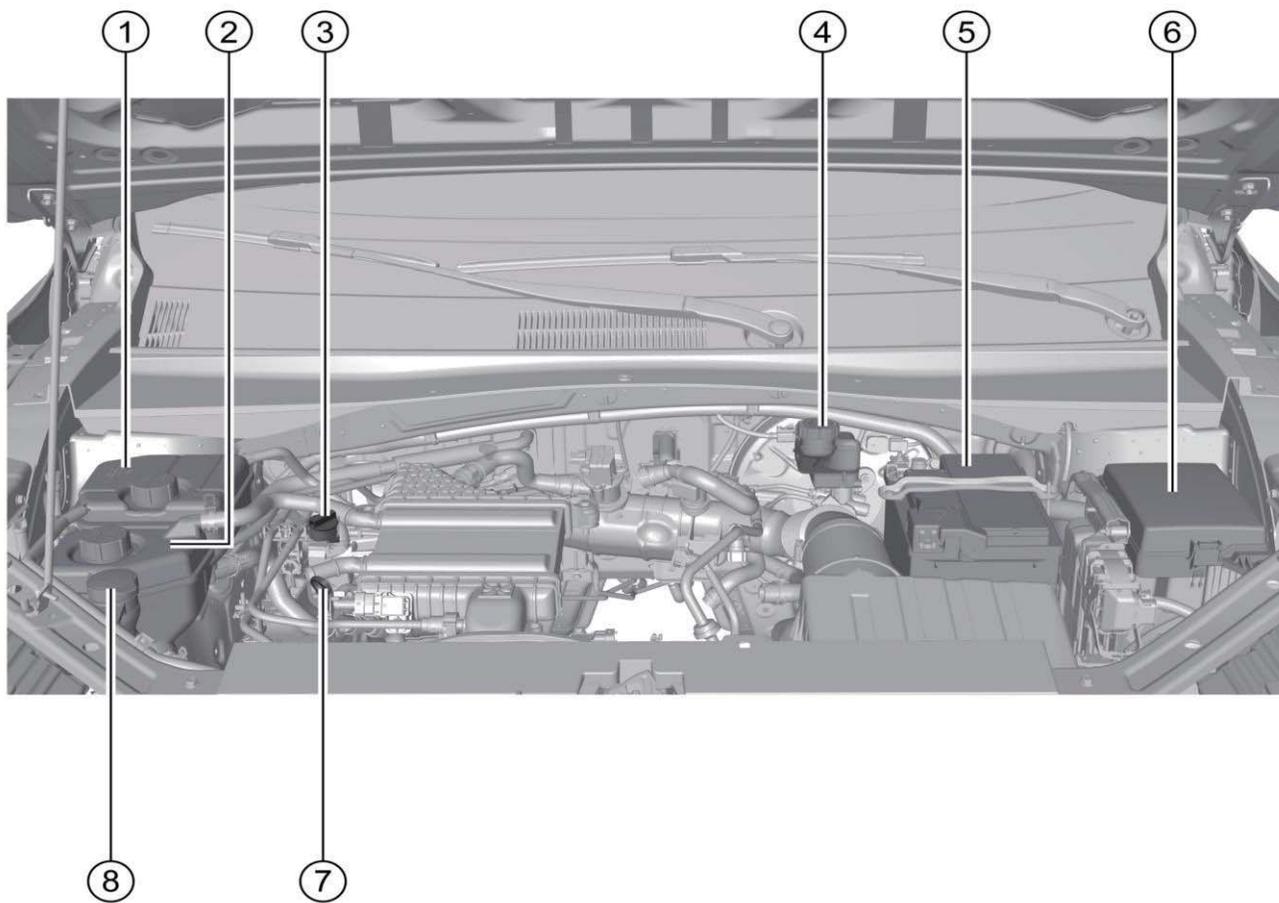
- ① Front combination lamp
  - Turning on lamps =>See page 62
  - Replacing bulbs =>See page 180
- ② Front wiper
  - Replacing front windshield wiper blades =>See page 174
- ③ Exterior rearview mirror
  - Side turn signal lamp =>See page 62
- ④ Roof rack =>See page 86
- ⑤ Door lock hole =>See page 44
- ⑥ Wheel =>See page 180
- ⑦ Front towing eye =>See page 204

## 2. Picture index

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- ① High-mounted stop lamp
- ② Rear combination lamp
- ③ Fuel tank cap =>See page 166
- ④ Liftgate opening button =>See page 51
- ⑤ Rear fog lamp (left), reversing lamp (right)
- ⑥ License plate lamp
- ⑦ Rear wiper
- Replacing rear windshield wiper blades  
=>See page 175

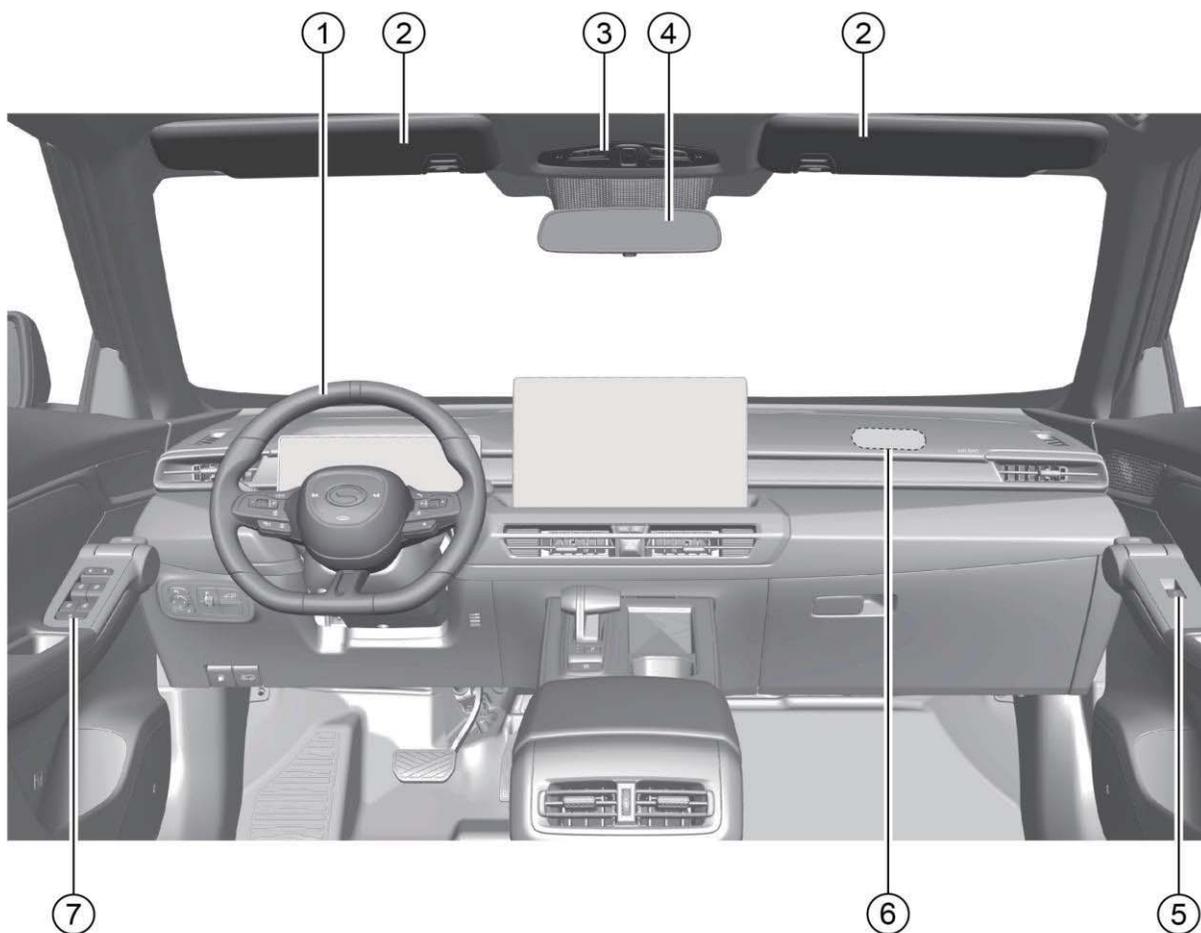


Front compartment

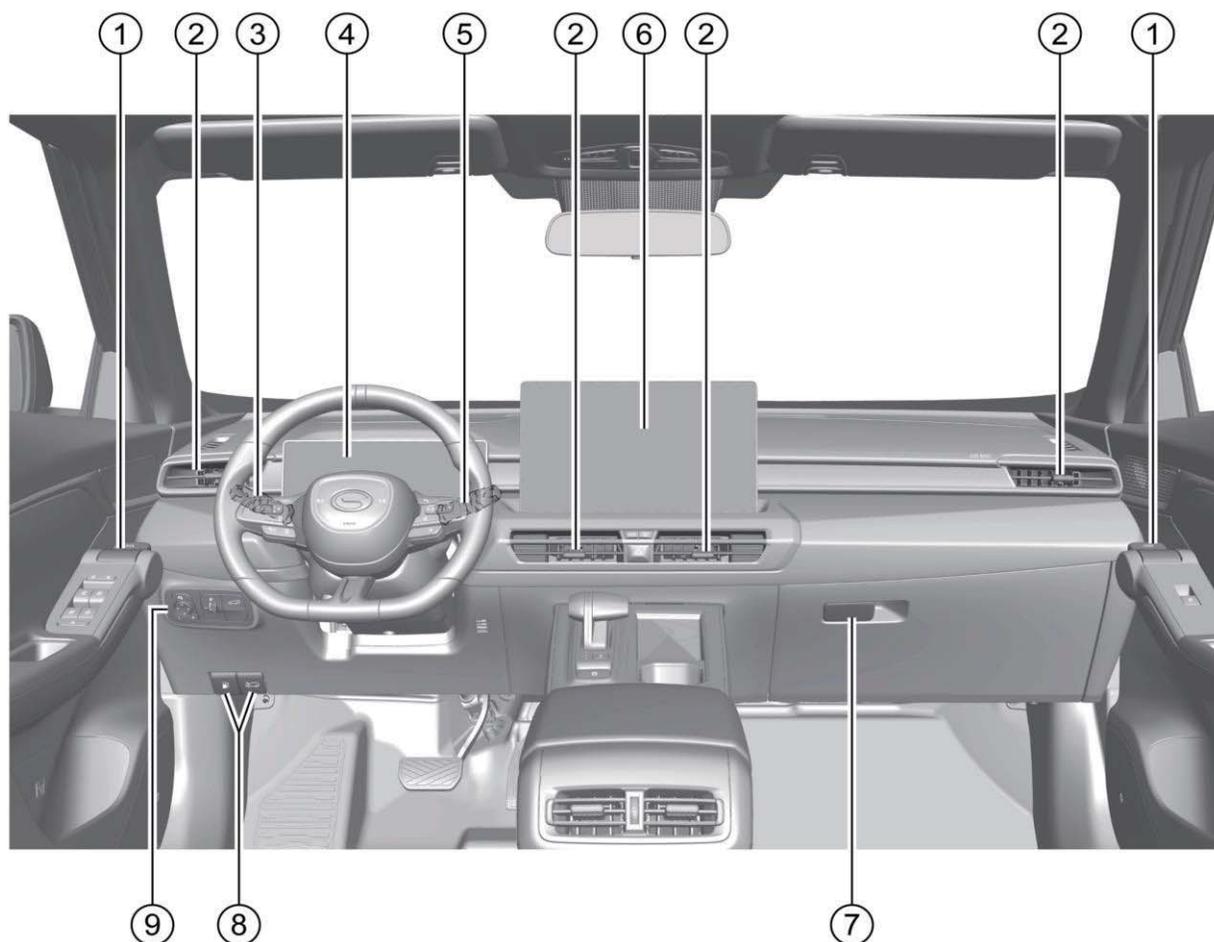
- ① Engine coolant reservoir =>See page 172
- ② CAC coolant expansion tank =>See page 172
- ③ Oil filler cap =>See page 170
- ④ Brake fluid reservoir =>See page 177
- ⑤ Battery =>See page 178
- ⑥ Engine compartment PDU =>See page 200
- ⑦ Oil dipstick =>See page 169
- ⑧ Windshield washer fluid reservoir =>See page 173

## 2. Picture index

### 2.2 Interior

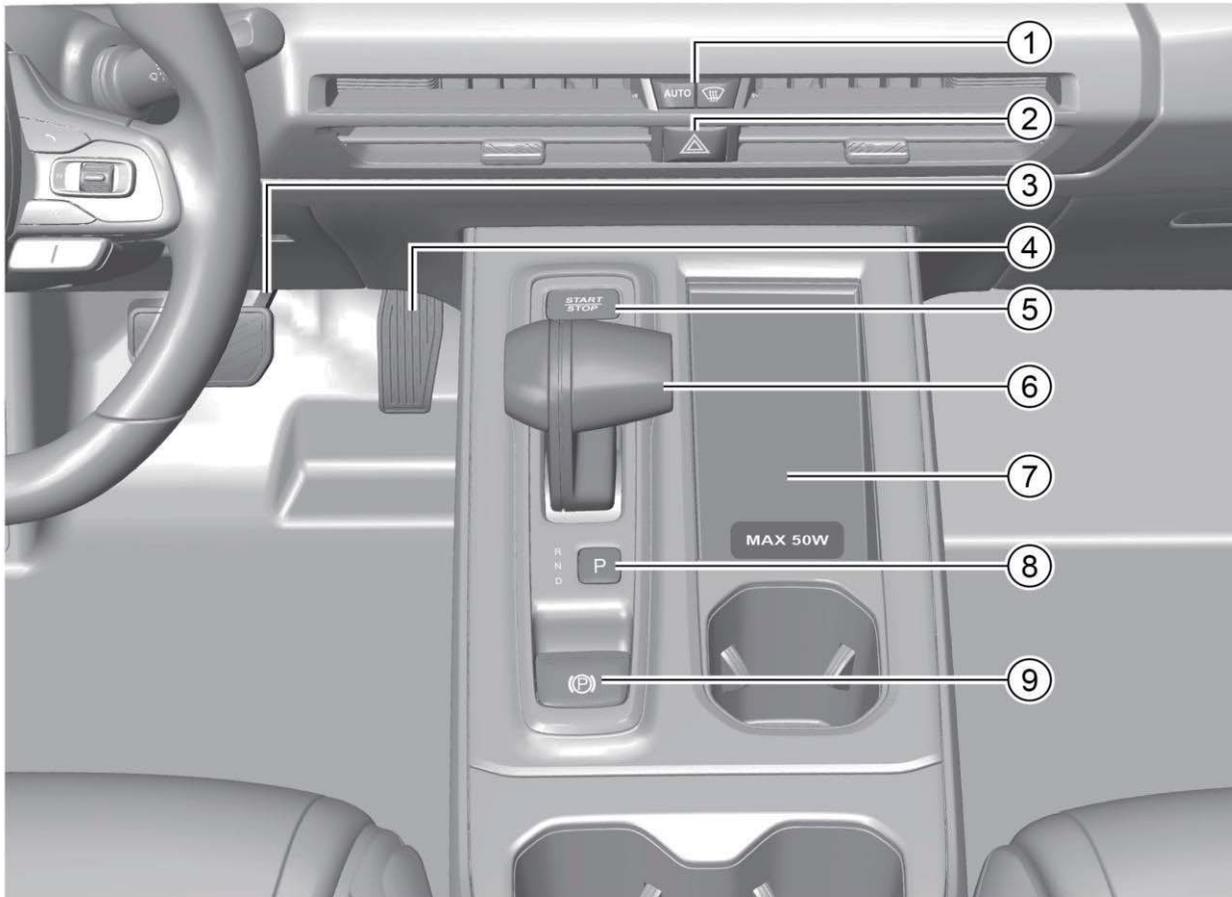


- ① Steering wheel =>See page 32
  - Steering wheel buttons =>See page 33
  - Driver's frontal airbag =>See page 17
- ② Sun visor =>See page 74
- ③ Front dome lamp =>See page 67
  - Electric sunshade control button =>See page 59
- ④ Interior rearview mirror =>See page 71
- ⑤ Front passenger' s power window control button =>See page 58
- ⑥ Front passenger's frontal airbag =>See page 18
- ⑦ Driver ' s power window control button =>See page 57
  - Central locking button =>See page 44
  - Electronic child safety lock\*=>See page 46



- ① Door inside handle =>See page 50
- ② A/C air outlet =>See page 90
- ③ Lamplight combination switch =>See page 62
- ④ Instrument cluster =>See page 34
  - Indicator lamp =>See page 35
- ⑤ Wiper combination switch =>See page 69
- ⑥ A/V system display =>See page 92
- ⑦ Handle for opening the glove box =>See page 80
- ⑧ Hood release handle =>See page 55
  - Fuel tank cap unlocking button =>See page 166
- ⑨ Instrument panel left switch block
  - Exterior rearview mirror folding button\*=>See page 73
  - Exterior rearview mirror adjusting button =>See page 72
  - Manual headlamp leveling knob =>See page 65
  - Liftgate opening button =>See page 52

## 2. Picture index



- ① HVAC control button =>See page 90
- ② Hazard warning lamp switch =>See page 66
- ③ Brake pedal
- ④ Accelerator pedal
- ⑤ START/STOP button =>See page 99
- ⑥ Gearshift lever =>See page 101
- ⑦ Instrument panel storage compartment  
=>See page 78
- Mobile phone wireless charging area =>See page 81
- ⑧ “P” button =>See page 101
- ⑨ EPB button =>See page 105

### 3.1 Safe driving

#### 3.1.1 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 car to someone else, be sure to hand the complete set of accompanying documents over to the new owner.

#### The following inspection 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.
- Check 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 hood is closed and locked properly.
- Check that all windows are clear and have a good view.
- Check that there are no objects that obstruct the movement of the driver's foot pedals.
- Adjust the seat, headrest and rearview mirror according to body height and shape.
- Protect children with suitable child safety seats and help them fasten the seat belts.
- Fasten the seat belt correctly and remind all passengers in the vehicle to fasten the seat belts.

#### Warning

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

- **Do not overlap two or more floor mats.**
- **Do not put the floor mat upside down or back-to-front.**
- **Do not use a floor mat that does not match the vehicle.**

#### CAUTION

- Do not distract yourself from external factors during driving.
- Do not drive the vehicle after drinking alcohol or taking drugs with side effects such as sedation, drowsiness, fatigue, headache, blurred vision, etc. Otherwise, your ability to control the vehicle will be affected, resulting in accidents and casualties.
- Strictly abide by the traffic regulations.

### 3. Instructions for safe operation

#### 3.1.2 Correct sitting posture of the driver and passengers

##### Correct sitting posture of the driver

Whether the driver's sitting posture is correct directly affects the driver's fatigue level and driving safety. Before driving, the driver shall do the following:

1. Sit up straight and adjust the seat back to a suitable position so that your back fits completely the seat back.
2. Adjust the seat position so that all pedals can be operated effectively with slightly bent legs.
3. Adjust the seat headrest correctly. => See page 75
4. Fasten the seat belt correctly. => See page 14
5. Adjust the steering wheel position. => See page 32

##### Warning

**During driving, the driver must not adjust the seat, headrest and steering wheel, 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 do the following:

1. Sit up straight and adjust the seat headrest correctly. => See page 75
2. The front passenger should adjust the distance between the seat and the instrument panel as needed.
3. The front passenger should adjust the seat back to a suitable position so that the back fits completely the seat back.
4. Fasten the seat belt correctly. => See page 14
5. Place both feet on the floor.
6. The child passenger, if any, must use an appropriate child safety seat for protection in accordance with applicable regulations. => See page 23

##### 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.**
- **During driving, correct sitting posture must be maintained and seat belts must be fastened correctly to avoid injuries caused by emergency braking or accidents.**

#### 3.2 Seat belt

##### 3.2.1 Why must you fasten the seat belt

Protection of the driver and passengers by seat belts



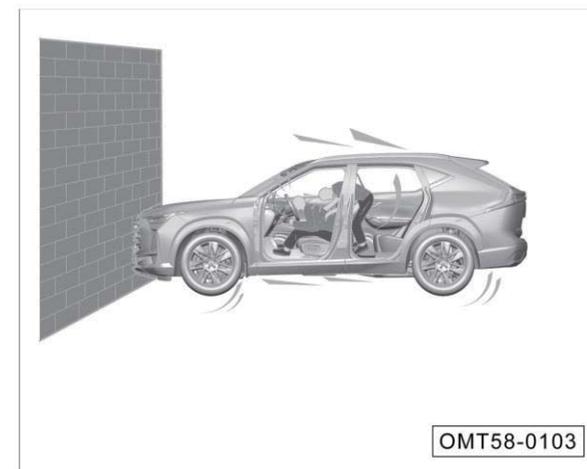
In the event of a car collision, fastening seat belts correctly can restrain the driver and passengers in a proper position and slow down the inertia of their forward movement, thus preventing them from being thrown forward, and at the same time enable them to get the best protection from the airbag, thus reducing their impact injury as much as possible.

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

### 3. Instructions for safe operation



Even at low vehicle speed, the driver and passengers who do not fasten seat belts may be thrown forward in case of collision, and once they hit any object in the vehicle, they will be injured.



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

#### 3.2.2 Seat belt

##### Seat belt indicator lamp

: Driver's seat belt indicator lamp

: Front passenger seat belt reminder lamp

The following alarms will be triggered when the 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 on the instrument cluster will flash for a few seconds and stay on.
- When the vehicle speed is higher than or equal to 20 km/h, if the driver or front passenger does not fasten the seat belt, the corresponding indicator lamp on 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 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 above alarm message still appears after the seat belt is properly fastened, it indicates that the seat belt system 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 reminder lamp\*

If rear seat belt reminder 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 rear seat belt reminder lamp stays on for a period of time and then goes out in normal cases, and it will light up under the following conditions:

- During engine start, the rear passenger does not fasten the seat belt.
- The rear passenger does not fasten the seat belt during rear door opening/closing.
- 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 severe collision where the triggering condition is reached, the seat belt pretensioner and load limiter will be triggered, driving the seat belt webbing to be quickly retracted and tensioned.

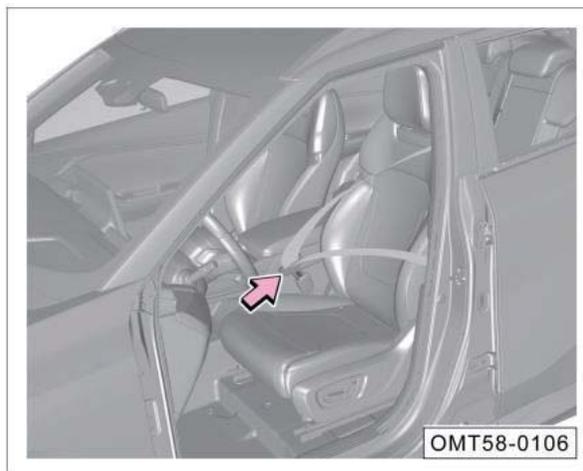
### 3. Instructions for safe operation

- When a collision occurs, the human body will move forward, and the seat belt pretensioner and load limiter will be activated at this time, so that the restraint force of the seat belt on the human body will be within a certain range, preventing the driver or passenger from being further injured due to excessive force. And at the same time, the seat belt pretensioner and load limiter will coordinate with the airbag to achieve a better safety protection performance.

#### **i** 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 seat belt pretensioner and load limiter cannot be used any more if deployed. In that case, the SRS indicator lamp  stays on, please contact the GAC Motor authorized shop for replacement.

#### Wearing seat belt



1. Keep a correct sitting posture. => See page 10
2. Pull out the seat belt slowly and evenly, and insert the tongue into the corresponding buckle until a click sound is heard.
3. Pull the seat belt tongue to make sure that the seat belt tongue is properly locked.

#### **i** NOTE

The front and rear seat belts are fastened in the same way, and the driver is responsible for reminding other passengers to fasten the seat belts correctly.

#### Unbuckling the seat belt



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

**Pregnant women must fasten the seat belt**

How should a pregnant woman fasten the seat belt?

1. Adjust the seat and headrest to the proper position.
2. Grasp the 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.
3. Insert the tongue into the corresponding buckle until a buckling sound is heard.
4. Pull the shoulder belt upward parallel to the upper body, tension the lap belt, and make sure that the tongue is properly locked.

⚠ Warning

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

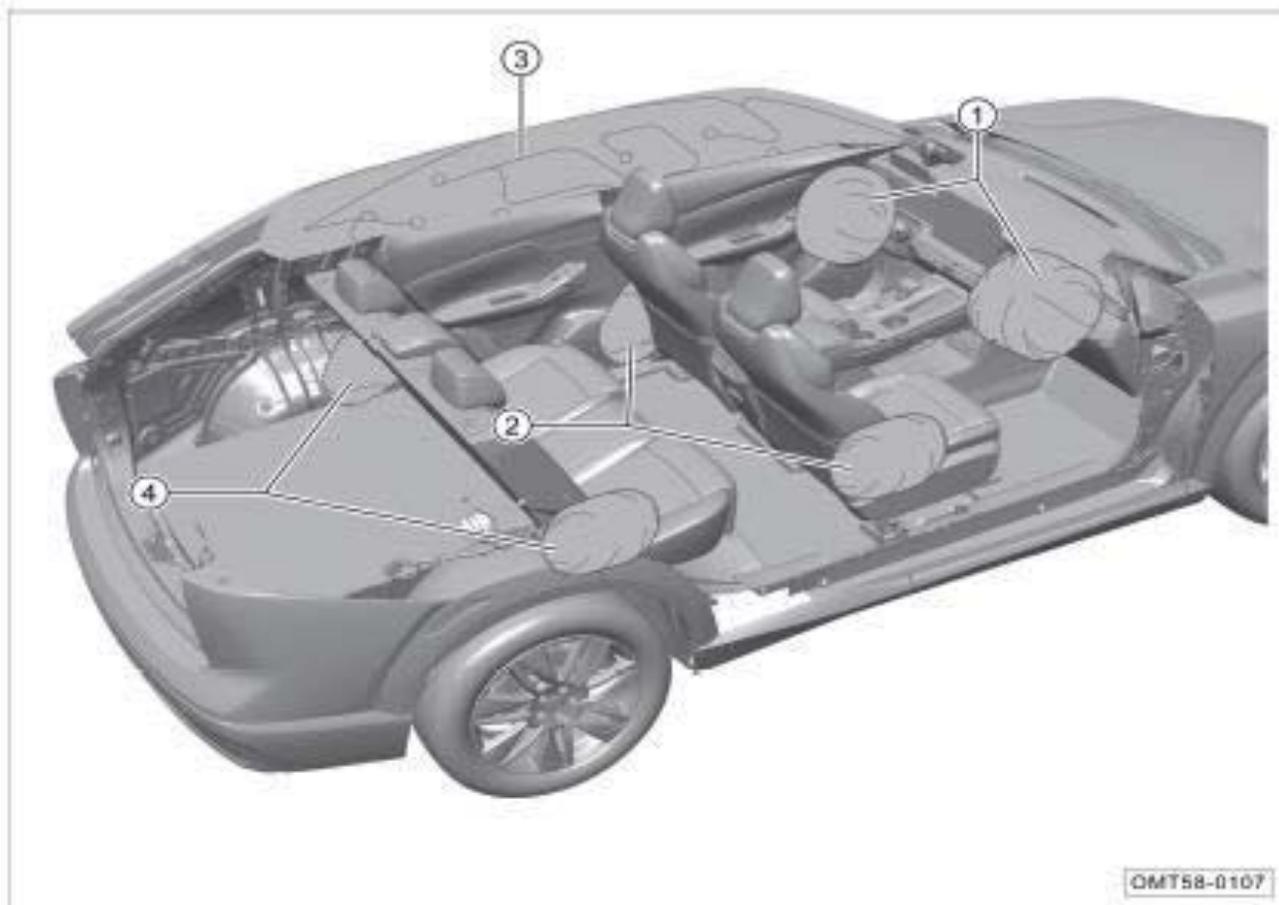
- Before driving, make sure that all occupants have properly fastened the seat belts.
- Each seat belt is for one person only. Do not share a seat belt with other persons (including children).
- Do not recline the front seat back excessively for comfort.
- Do not place the shoulder belt under or behind 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.

⚠ Warning

- Do not change or remove the seat belt without authorization; otherwise the protection from the seat belt may be affected.
- The seat belt must be replaced in time in case of burrs, contamination or damage.
- The seat belt can be wiped with sponge dipped in neutral soapy water, and then the seat belt shall be placed in a cool place to dry before use. However, the seat belt can only be cleaned in the vehicle and cannot be disassembled without authorization.
- When the seat belt is not in use, it shall be fully retracted, and the seat belt shall not be in a loose and overhanging status.

### 3. Instructions for safe operation

#### 3.3 Supplemental restraint system (SRS)



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

- ① Front seat frontal airbag
- ② Front seat side airbag
- ③ Side curtain airbag (bilaterally symmetrical)
- ④ Rear side airbag

### Supplemental restraint system (SRS) indicator lamp

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

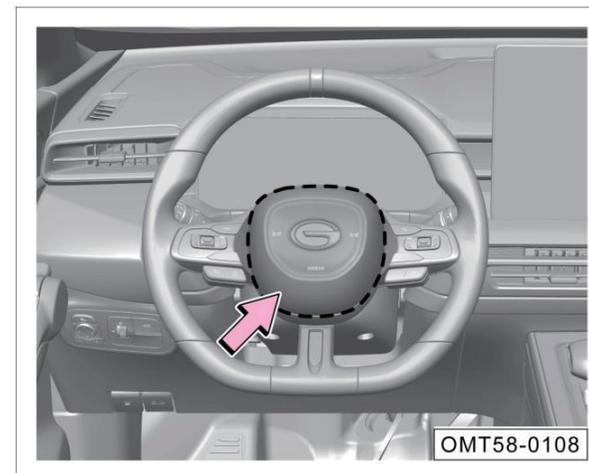
 A system fault is indicated when the indicator lamp  is in the following conditions:

1. After the START/STOP button is set to the "ON" position, the indicator lamp does not light up.
2. With the START/STOP button set to the "ON" position, the indicator lamp does not go out after the system completes the self-inspection.
3. After the START/STOP button is set to the "ON" position, the indicator lamp goes out and then lights up.
4. The indicator lamp comes on or flashes while the car 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 the event of an accident, please contact the GAC Motor authorized shop for replacement.**
- **When the SRS fails, please contact the GAC Motor authorized shop for inspection. Otherwise, the system cannot be triggered or will be abnormally triggered 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 shaded area) marked with "AIRBAG".

### 3. Instructions for safe operation



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

#### Warning

**Do not attach or place any decorative objects on the surface area of the instrument panel, because once the car is running or the airbag deploys, these objects will fall, knock over and roll around in the car, affecting the driver and hurting the passengers in the car.**

#### Front and rear side airbags

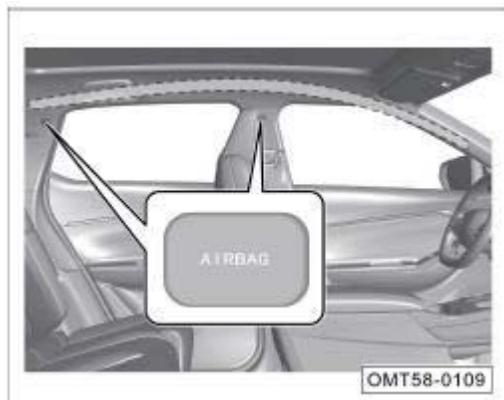


Front and rear side airbags are installed on the outside of the front seat and rear seat (as indicated by the dotted shaded area) marked with "AIRBAG".

#### 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 cannot provide protection in case of an accident.**

### Side curtain airbag



The side curtain airbag is installed inside the left and right trims of the headliner (as indicated by the dotted shaded area) marked with "AIRBAG".

#### **i** NOTE

- When a serious collision occurs, the airbags on the side where the vehicle collides 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 airbags might not be triggered in the following cases:

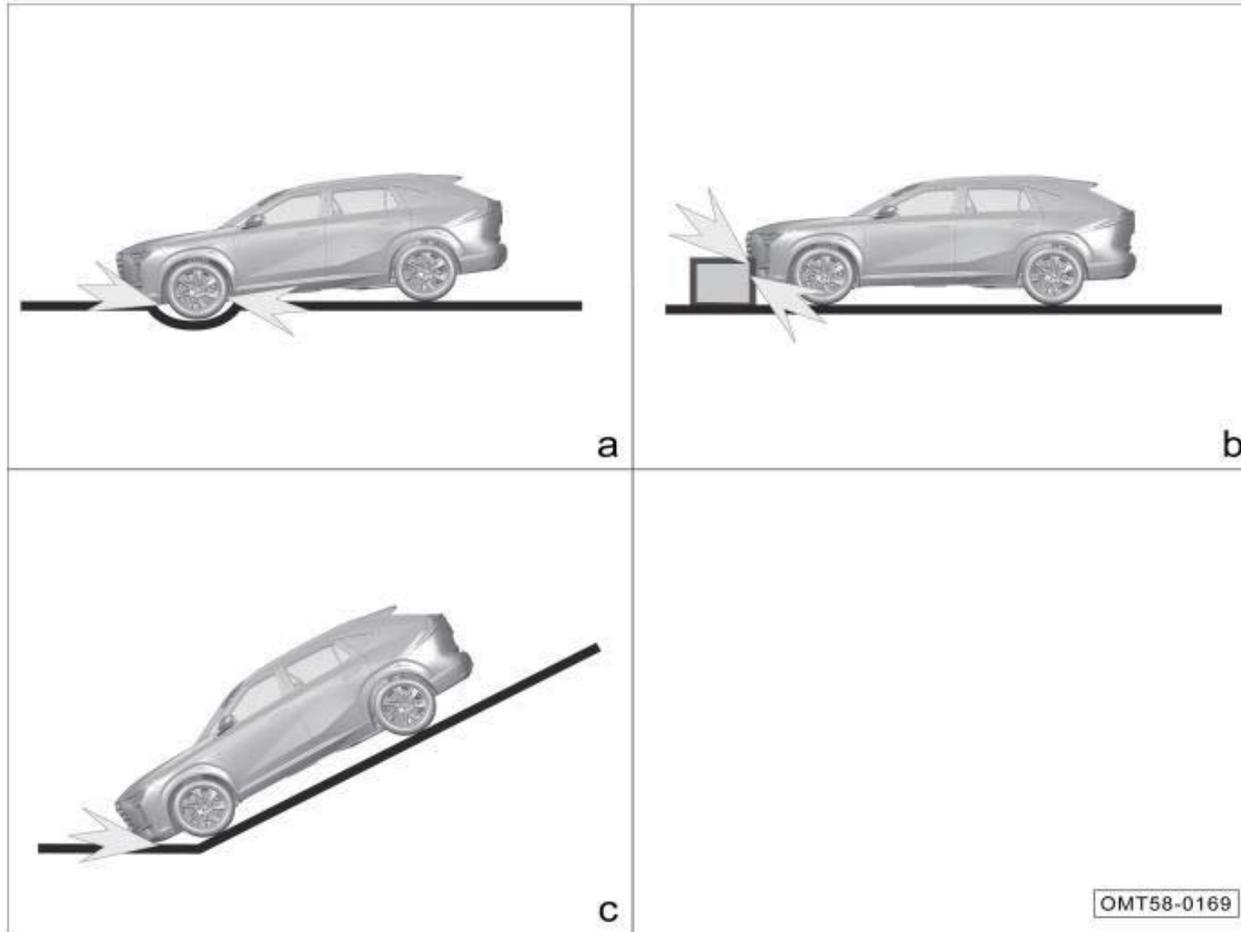
- The START/STOP button is in "ACC" or "OFF" position.
- 100% front or side impact.
- Minor front or side impact.
- Rear collision.
- Other special circumstances.

#### **i** NOTE

The word "minor" refers to the extent with respect to the SRS and has nothing to do with the damage of the vehicle.

### 3. Instructions for safe operation

#### 3.3.1 Cases where the airbags may deploy

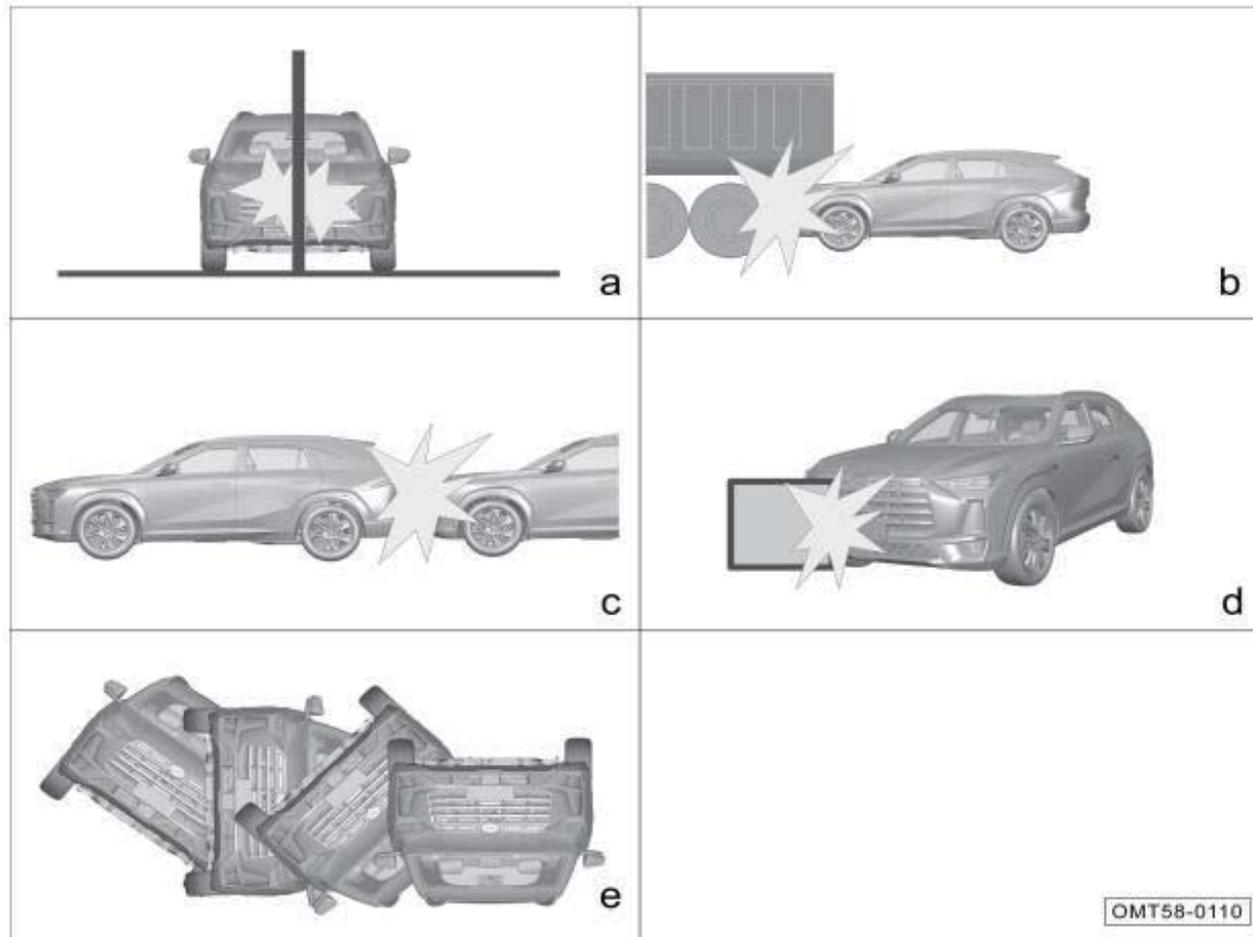


a: The nose of the vehicle hits the ground when crossing a deep pit.

b: Collision with roadside protrusions, curbs, etc.

c: The nose of the vehicle hits the ground when going down a steep slope.

3.3.2 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.

### 3. Instructions for safe operation

#### 3.4 Child restraint

##### 3.4.1 General description

The child must sit in a rear outboard seat and be protected by a suitable child safety seat selected according to the body size of the child.



Warning labels are pasted on the front and back of the right 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 sat in the child safety seat, do not let it lean its head or any part of the body against the door area. Otherwise, it will be very dangerous when the side airbag is deployed, because its impact force will 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 equipment (such as power window, electric sunshade, etc.) that may pinch themselves.

#### Warning

- Do not children alone in the vehicle!
- Do not 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 case of collision or emergency braking, children are less likely to be injured by hitting any hard objects in the vehicle.
- Activate the child safety lock of the door on the side where the child sits. => See page 45

3.4.2 Child safety seat



A. Group 0/0+ child safety seat



b. Group I child safety seats



C. Group II child safety seats:



d. Group III child safety seats

OMT58-0111

**Classification of child safety seats (for reference only):**

**a. Group 0/0+ child safety seats:**

- Suitable for infants weighing less than 13 kg.

**b. Group I child safety seats:**

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

**c. Group II child safety seats:**

- Suitable for children weighing (15~25) kg.

**d. Group III child safety seats:**

- Suitable for children weighing (22~36) kg.

### 3. Instructions for safe operation

Welldon Angela 2nd Generation is recommended for Group I child safety seats, and the product model is WD002-ZJC.

Precautions for installation:

- Seat body adjustment: Rear-facing seat is recommended. Adjust the seat body to the most upright (nearly vertical) status.
- Adjustment of headrest: It is recommended that the headrest of the child safety seat be flush with the shoulder of the child.
- It is recommended that the top tether hook be fixed to the interface of the rear roof cross member of the vehicle.
- It is recommended to take the path of top tether around both sides of the child safety 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.

#### 3.4.3 Smart Bluetooth child safety seat \*

##### Connecting the Bluetooth seat

Fasten the Bluetooth seat belt, turn on the Bluetooth switch in the Bluetooth setting interface, and check the available Bluetooth devices. You can see the Bluetooth device "Welldon\_xxxxxx".

- Click the Bluetooth device "Welldon\_xxxxxx" to connect it. After the connection is successful, the prompt will be displayed.
- Click "Disconnect" to disconnect the Bluetooth child seat function.
- Click "Ignore Device" to open a confirmation window for ignoring Bluetooth device. Click "Cancel" to keep turning on Bluetooth device, and click "Confirm" to disconnect Bluetooth device, after which the Bluetooth device "Welldon\_xxxxxx" will be removed from the list.

When the child leaves the seat for a period of time, the Bluetooth will enter sleep mode. The Bluetooth can be waken up again in the following ways:

- Manually trigger the seat cushion switch.
- Restart the device.

#### **i** NOTE

- The smart Bluetooth child safety seat communication function is only suitable for Welldon Smart child safety seats customized for GAC vehicles.
- When the Bluetooth device "Welldon\_xxxxxx" is successfully connected for the first time, the system will automatically connect it when it is needed next time.

##### Bluetooth seat alarm

During the normal use of the Bluetooth seat, if the seat belt is released, the alarm message "The child seat belt is not fastened properly. To ensure the safety of the child, please fasten the seat belt" will pop up on the AV system interface and will always exist. After the seat belt is fastened, the pop-up alarm window disappears.

### 3.4.4 Information about child safety seat

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

Weight group	Mounting position		
	Front passenger seat	Rear outboard seats	Rear center seat
Group 0: <10 kg	X	U	X
Group 0+: <13 kg	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 = The child restraint systems approved for this weight group are not suitable.**

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 seat	Rear outboard seats	Rear center seat
Carry-cot	F	ISO/L1	X	X	X
	G	ISO/L2	X	X	X
Group 0: <10 kg	E	ISO/R1	X	IUF/IL	X
Group 0+: <13 kg	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 “front-facing” general ISOFIX child safety seats for this weight group that are fixed with top tether.

**IL**—Suitable for the special ISOFIX child restraint systems listed in the table which may be special, restricted or semi-general.

**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.

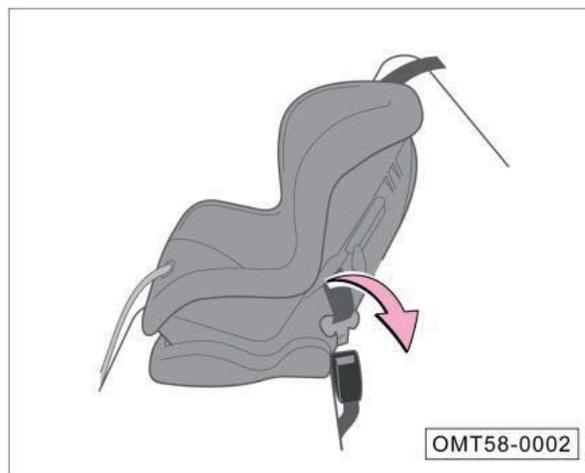
### 3.4.5 Correct installation of child safety seat

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.

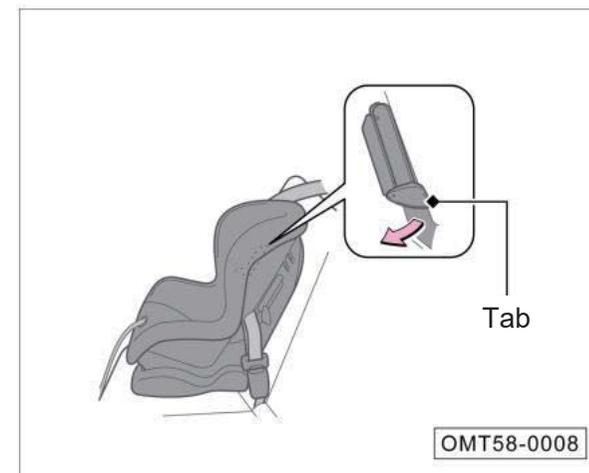
#### **i** NOTE

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

### Installation of child safety seat by three-point seat belt

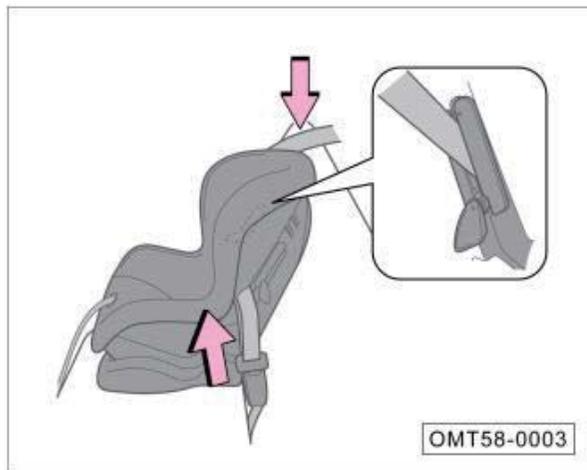


1. Place the child safety seat on the rear seat.
2. Pass the seat belt through the child safety seat and fully insert the tongue into the buckle until a click sound is heard.

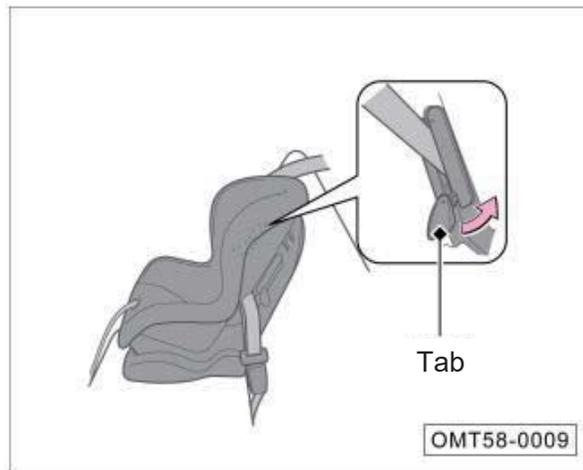


3. Push the tongue down and pass the shoulder belt through the slit on the side of the child safety seat.

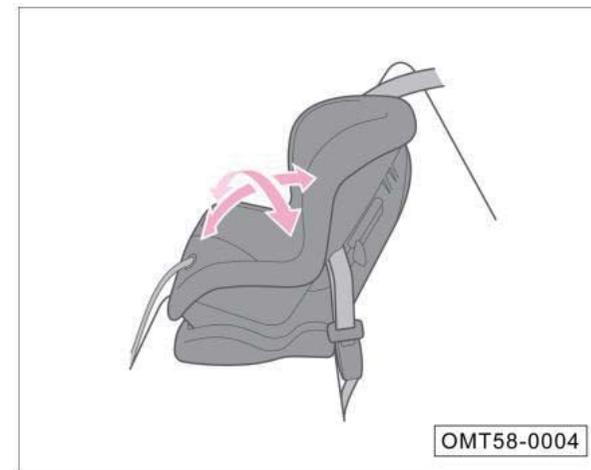
### 3. Instructions for safe operation



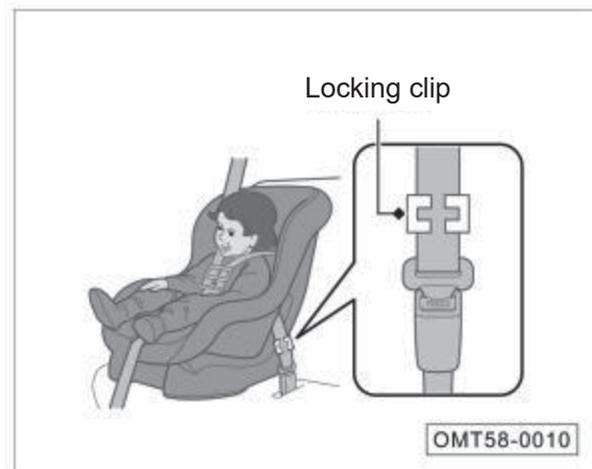
4. Grasp the shoulder belt near the buckle and pull it up to tension the lap belt. At this time, press the child safety seat with your own weight and push it into the car seat.



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 locking tab. Pinch the two parts of the seat belt together so that they do not slip out of the locking tab. 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 of this vehicle are equipped with ISOFIX system. The installation instructions of ISOFIX system child safety seats are described below.

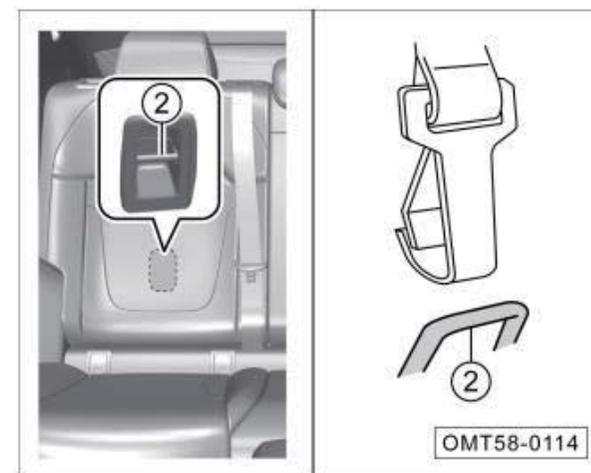
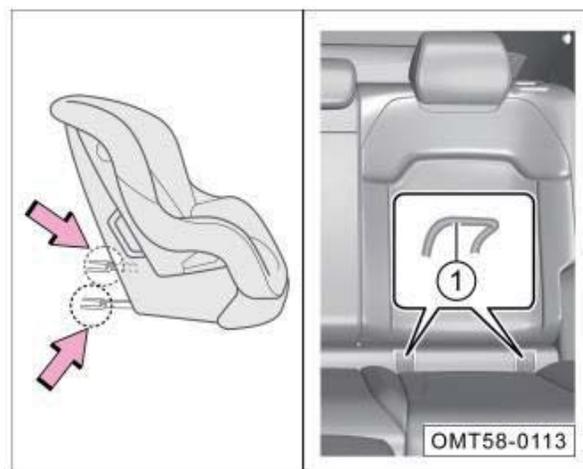
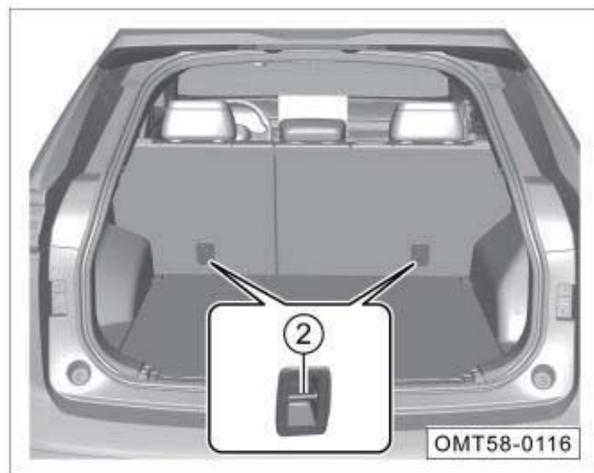
⚠ Warning
<ul style="list-style-type: none"> <li>• <b>The child safety seat anchorages installed in this vehicle can be used to fix the child safety seats only.</b></li> <li>• <b>Do not connect straps, hard and sharp objects or any other objects other than child safety seats to the anchorages; otherwise children may be endangered in the event of an accident.</b></li> </ul>

### Rear seat



Open the cover, and you can see that the front anchorage ① of the rear seat is under the cover.

### 3. Instructions for safe operation

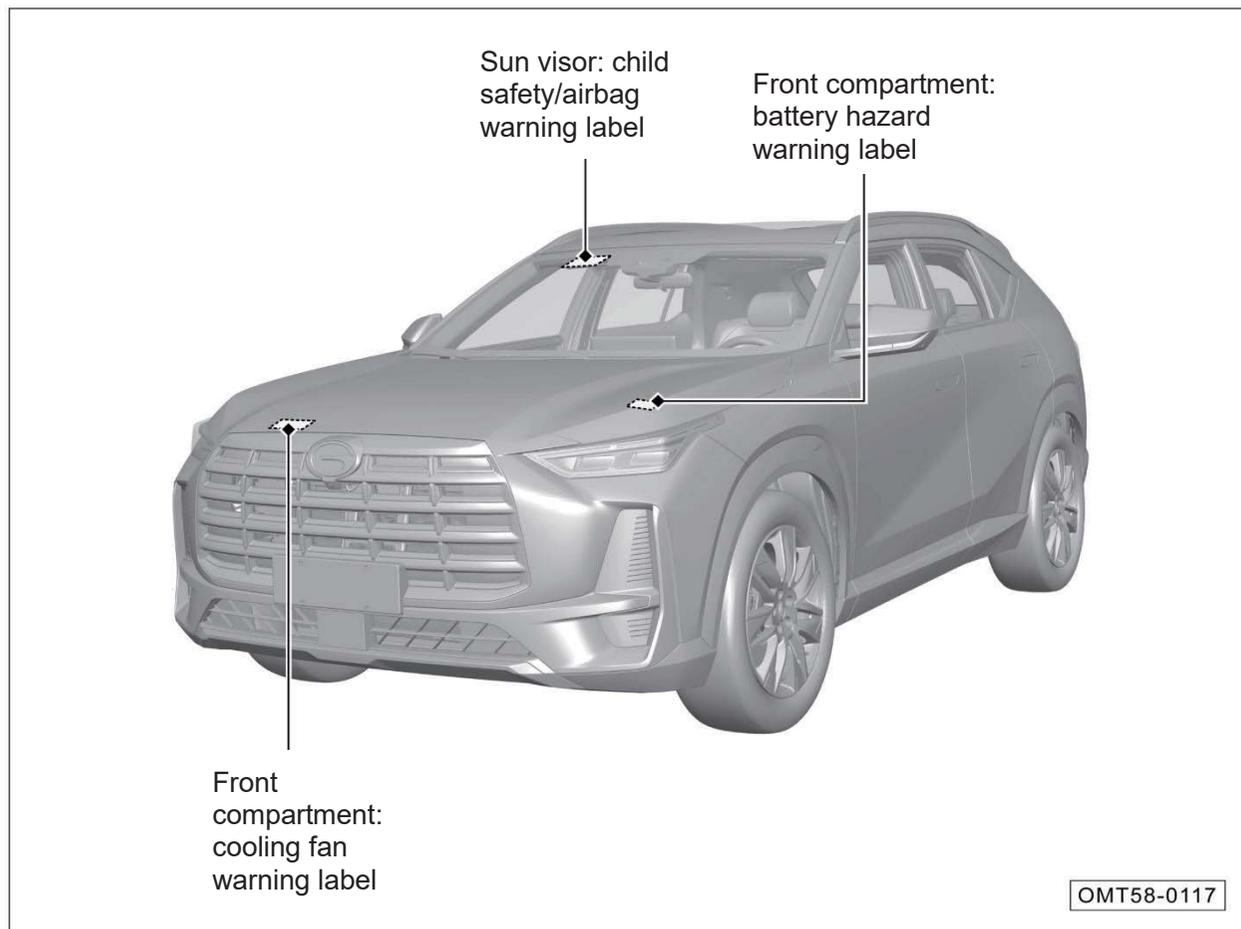


#### **i** NOTE

The rear anchorage ② of the rear seat is located behind the seat back or on the headliner above the rear seat. The rear anchorage located behind the seat back is shown in the figure. The anchorage ② can be seen after its protective cap is opened.

1. Place the child safety seat on the seat, open the cover, find the front anchorage ①, and insert the lower guide groove of the child safety seat as arrowed into the front anchorage ① until a click sound is heard.
2. Pass the strap through the top of the seat back, open the protective cap of the rear anchorage ②, and hook the strap hook to the rear anchorage ② with the strap is not twisted.
3. Tension the strap and shake the child safety seat to ensure it is firmly fixed.

3.5 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 car shall prevail.

## 4. Operation of systems and equipment

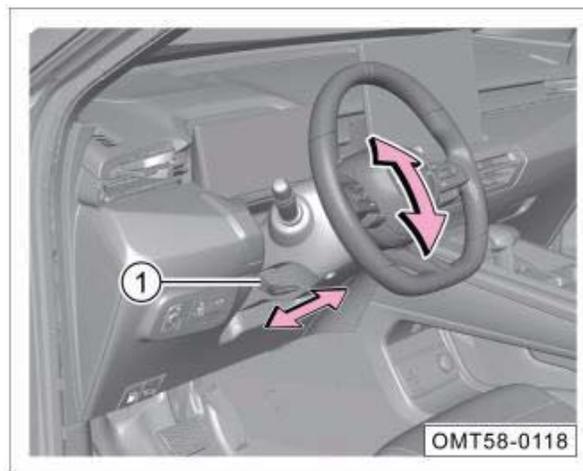
### 4.1 Cab

#### 4.1.1 Steering wheel

Adjusting steering wheel position



1. Adjust the driver's seat to a suitable position to ensure that the distance between the steering wheel and your chest is not less than 25 cm.



2. Push down the locking handle ① to unlock the steering wheel.
3. Adjust the steering wheel up, down, front and rear to the proper position as required to ensure that the instrument cluster and all indicator lamps can be seen.
4. Pull up the locking handle ① to lock the steering wheel and ensure that it is firmly locked.

#### **i** NOTE

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**

- **Please observe the local traffic regulations when using the horn.**
- **Pay attention to the surrounding environment when using the horn. For example, when there are people or animals in front of the vehicle, slow down and do not sound the horn quickly or for a long time, so as not to frighten people or animals.**

② Right control buttons on steering wheel:

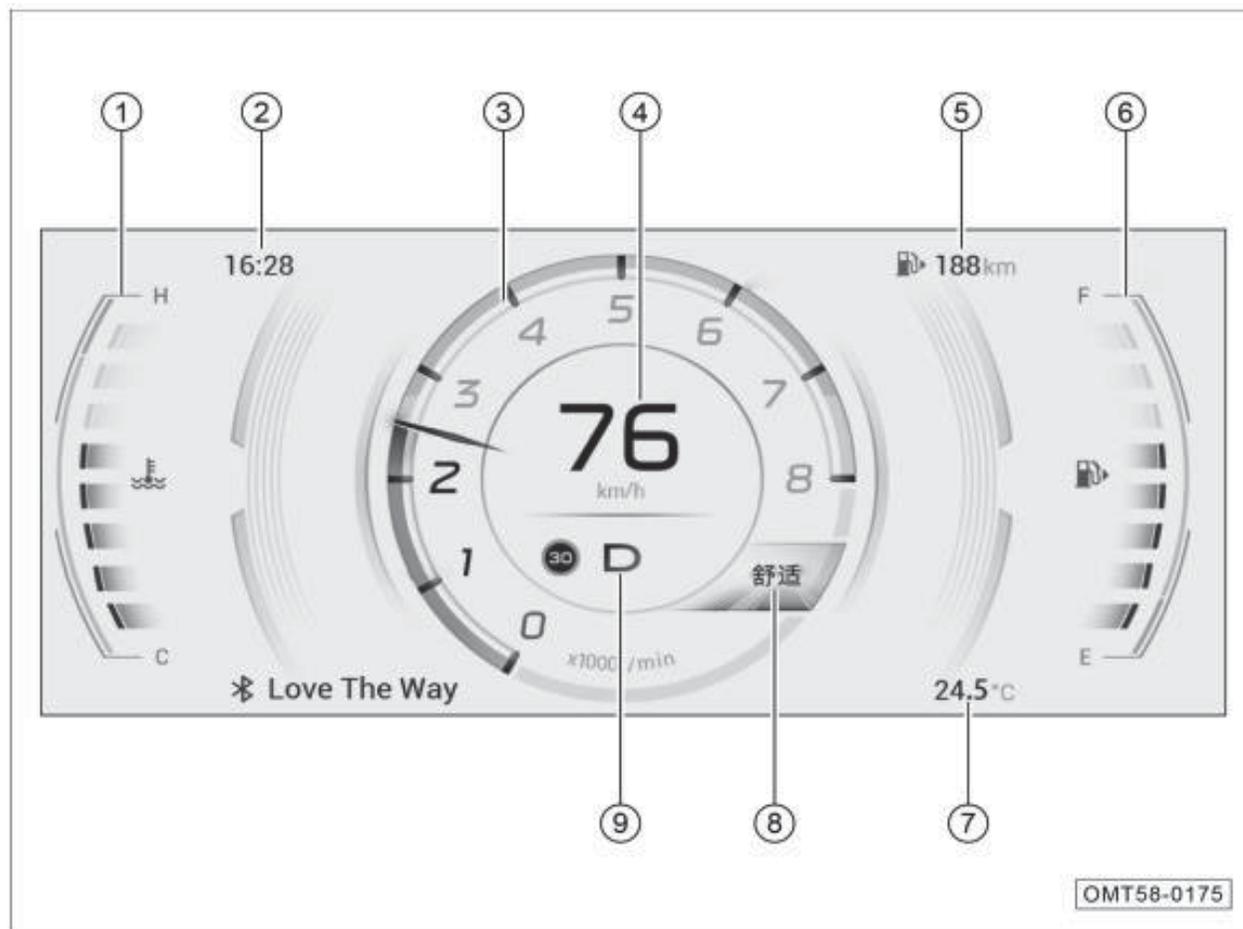
- Answer/hang up button
- A/V system control button
- Voice button
- Custom button

③ Left control buttons on steering wheel:

- Control buttons of the instrument cluster display:
  - Instrument theme switching
  - Driving information
  - Alarm message
- Cruise control buttons:
  - ACC control button
  - Integrated cruise control button

## 4. Operation of systems and equipment

### 4.1.2 ICM



- ① Engine coolant temperature gauge
- ② Time display
- ③ Tachometer
- ④ Speedometer
- ⑤ Range
- ⑥ Fuel gauge
- ⑦ Outside temperature display
- ⑧ Driving mode
- ⑨ Gear display

#### **i** NOTE

- The theme interfaces can be switched through the VIEW button on the steering wheel.
- If the instrument cluster display is abnormal, please stop driving immediately and contact the GAC Motor authorized shop.

## 4.1.3 Indicator lamp

S/N	Indicator	Designation	Color	Function
1		Charging system alarm lamp	Red	If the red warning lamp comes on, it indicates that the charging system is faulty.
2		MIL	Yellow	If the yellow indicator lamp comes on, it indicates that the EMS is faulty.
3		Low oil pressure alarm lamp	Red	If the red alarm lamp comes on, it indicates that the engine oil pressure is low.
4		Emission fault indicator lamp	Yellow	If the yellow indicator lamp comes on, it indicates that the exhaust system is faulty.
5		Left turn signal and hazard warning indicator lamp	Green	When the left turn signal indicator lamp flashes alone, it indicates that the left turn signal lamp of the car is on. When the hazard warning lamp switch is pressed, the left / right turn signal indicator lamps and all turn signal lamps outside the car 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 there is a fault in the circuit of the fuel pump level sensor.
9		Right turn signal and hazard warning indicator lamp	Green	If the right turn signal indicator lamp flashes alone, it indicates that the right turn signal lamp of the car is on. When the hazard warning lamp switch is pressed, the left / right turn signal indicator lamps and all turn signal lamps outside the car will flash simultaneously.
10		Electric park brake (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		Electric park brake (EPB) fault indicator lamp	Yellow	If the yellow indicator lamp comes on, it indicates that the EPB system is faulty.
				If the yellow indicator lamp flashes, it indicates that the EPB is in the service mode.

#### 4. Operation of systems and equipment

S/N	Indicator	Designation	Color	Function
12		Parking brake and brake system indicator lamp	Red	If the red indicator lamp comes on, it indicates that the brake fluid is too low or the electronic brake force distribution (EBD) system is faulty.
13		Electronic stability program (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		ESPOFF 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		Transmission fault indicator lamp	Yellow	If the yellow indicator lamp comes on, it indicates that the transmission system is faulty.
				If the yellow indicator lamp flashes, it indicates that the transmission fluid temperature is high.
17		TPMS indicator lamp failure	Yellow	If the yellow indicator lamp comes on, it indicates that the TPMS is faulty.
18		Electric power steering (EPS) indicator lamp	Red	If the red indicator lamp comes on, it indicates that the EPS system is faulty.
19		IHC 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.
20		ACC indicator lamp (no vehicle ahead)	Gray	If the gray indicator lamp comes on, it indicates that the ACC is ready, and there is no target vehicle ahead.
			Blue	If the blue indicator lamp comes on, it indicates that the ACC is working, and there is no target vehicle ahead.
21		ACC indicator lamp (a vehicle ahead)	Gray	If the gray indicator lamp comes on, it indicates that the ACC is inhibited or ready, and there is a target vehicle ahead.
			Blue	If the blue indicator lamp comes on, it indicates that the ACC is working, and there is a target vehicle ahead.
22		ACC fault indicator lamp	Yellow	If the yellow indicator lamp comes on, it indicates that the adaptive cruise control (ACC) is faulty.

S/N	Indicator	Designation	Color	Function
23		LDW status indicator lamp	White	If the white indicator lamp comes on, it indicates that the LDW is activated.
			Yellow	If the yellow indicator lamp comes on, it indicates that the LDW 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 LKA is working normally or intervenes with the steering wheel for deviation correction.
24		FCW status indicator lamp	Yellow	If the yellow indicator lamp comes on, it indicates that the FCW system 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 forward collision warning system is being triggered and activated.
25		Front passenger 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.
26		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.
27		High beam indicator lamp	Blue	If the blue indicator lamp comes on, it indicates that the high beam is on.
28		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.
29		Rear fog lamp indicator lamp	Yellow	If the yellow indicator lamp comes on, it indicates that the rear fog lamp is on.
30		Hill descent control (HDC) indicator lamp	Yellow	If the yellow indicator lamp comes, it indicates that the HDC system is activated.
31		Hands off warning lamp	Green	If the green indicator lamp comes on, it indicates that hands on steering wheel is detected by ICA.
			Yellow	If the yellow indicator lamp comes on, it indicates that hands off steering wheel is detected by ICA.
32		Lateral control status indicator lamp	Gray	If the gray indicator lamp comes on, it indicates that ICA is in standby status.
			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.

#### 4. Operation of systems and equipment

S/N	Indicator	Designation	Color	Function
33		Rear seat belt reminder 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 red indicator lamp comes on, it indicates that the hood, one of the doors or trunk lid is not closed.
35		Gasoline particulate filter (GPF) indicator lamp*	White	If the white indicator lamp comes on, it indicates that the accumulated carbon in the gasoline particulate filter (GPF) exceeds a certain limit, and the vehicle needs to run at a high speed for more than 40 min for automatic carbon removal.
			Yellow	If the yellow indicator lamp comes on, it indicates that the accumulated carbon in the gasoline particulate filter (GPF) is excessive, and the vehicle needs to run at a high speed for more than 40 min for automatic carbon removal.

Notes: When the vehicle is started, a self-inspection will be carried out, and some warning lamps or indicator lamps on the instrument panel will light up briefly and then go out automatically. If any warning lamp or indicator lamp on the instrument panel remains on after start, it indicates that the relevant system or function is in a certain working status or faulty. You should read carefully and understand the meaning of each indicator or warning lamp. In case of a fault, please go to or contact the GAC Motor authorized shop for inspection in time.

## 4.2 Vehicle locking and unlocking

### 4.2.1 Smart key

This vehicle is accompanied with two smart 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 smart 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 smart key buttons may be blocked or unstable in the following cases:

- Nearby equipment is emitting strong radio waves.

- The smart key is carried together with telecommunication equipment, laptop, mobile phone, access control card or wireless signal transmitter.
- The smart key is put together with magnetic cards (such as bank card and bus card).
- Metal objects contact or cover the smart key.

#### NOTE

- When the START/STOP button is in the "ACC" or "ON" position, the smart key buttons do not work.
- If the unlocking or locking function of the smart key fails, please try to press the button on the key 3 times in a short time to restore the function.

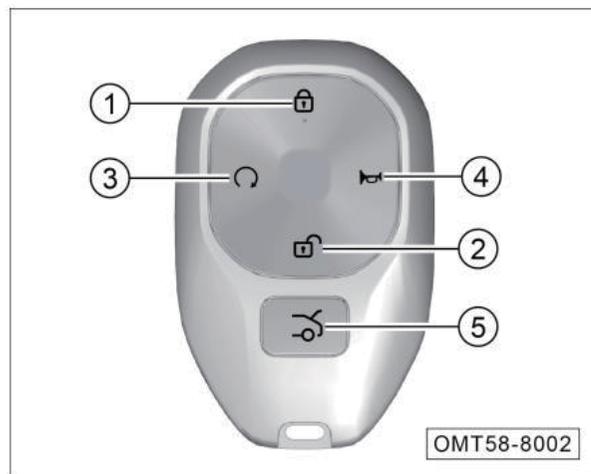
#### CAUTION

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

## 4. Operation of systems and equipment

### Button operation



① : Locking button

② : Unlocking button

③ : START/STOP button

④ : horn button

⑤ : liftgate unlocking button

### ① button operation

- If this button is pressed once within the effective range of the remote control key, all doors will be locked; If you press and hold this button, the window, sunroof and sunshade will be closed automatically. During the automatic closing process of windows, sunroof and sunshade, if this button is released, the windows, sunroof, and sunshade will stop closing.
- Press the button twice quickly in succession to realize the vehicle locating, and then the turn signal lamps flash 3 times quickly.

### NOTE

When the doors are locked, the turn signal lamps will flash once. The horns will sound once. The horns can be turned on or off through "Unlocking/Locking Horn" on the A/V system interface.

### CAUTION

Before closing the windows and the sunroof by the key, check that there are no body parts (such as head, hands, etc.) in the closing path of the windows and sunroof so as to prevent a risk of pinch injury.

### ② button operation

- If this button is pressed once within the effective range of the remote control key, all doors will be unlocked; If you press and hold this button, the window will open automatically and the sunroof will be tilted automatically. If the button is released during the opening of the window, the window will stop opening.

**i NOTE**

When the door is unlocked, the turn signal lamp will flash twice. The horns will sound twice. The horns can be turned on or off through "Unlocking/Locking Horn" on the A/V system interface.

**👁 CAUTION**

After the unlocking button on the smart key is pressed to unlock the door, if the door is not opened within 30 seconds, the system will lock the door again.

**③🔑 button operation**

- When the traction battery is fully charged and the smart key is within the operating range, if you press 🔑 button once and press and hold 🔄 button within 5 s until the turn signal lamp flashes, the "READY" indicator lamp on the instrument panel will light up, and the vehicle will start.
- When the vehicle has been started remotely, press and hold 🔄 button for 3 s to shut down the vehicle remotely.

**i NOTE**

- Before shutting down the vehicle remotely, make sure the vehicle is locked. If you are sure about it, press 🔑 button once and then press and hold 🔄 button to shut down the vehicle.
- The default maximum hold time for startup is 30 min.

**④🔑 button operation**

- Press and hold the 🔑 button on the smart key for more than 3 s to turn on the remote alarm function.

**⑤🔑 button operation**

- Double-click the button within the operating range of the key to electrically open or close the liftgate. If you press the button again in the opening or closing process, the liftgate will stop at the current position.
- If the vehicle is not equipped with the PLG, double-click the button within the operating range to unlock the liftgate, and then open the liftgate manually.

#### 4. Operation of systems and equipment

##### 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.
- Using an unsuitable battery may damage the smart key.
- Be sure to comply with relevant environmental regulations when disposing of depleted battery.

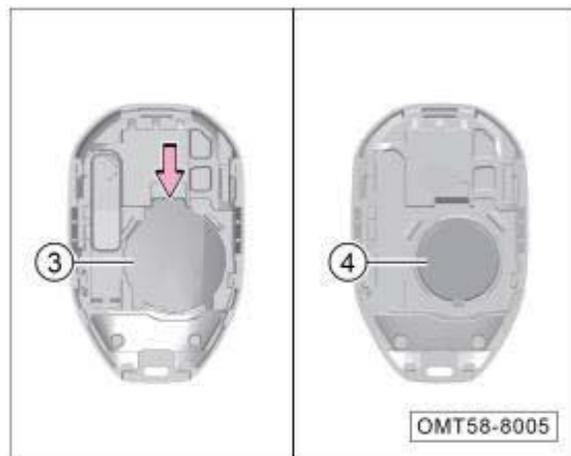
##### Battery replacement steps



1. Pick up the key, push the rear cover ① firmly as arrowed with your hand, and remove the rear cover ① after hearing a "click" sound.

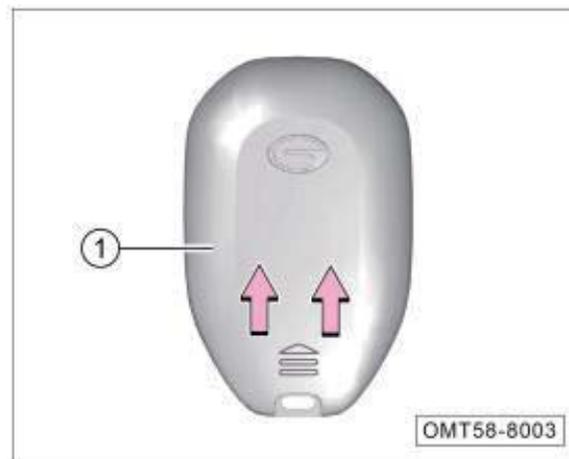


2. Take out the emergency mechanical key ② at the arrow position.



3. Pry the cover ③ open with the emergency mechanical key at the arrow position.
4. Take out the smart key battery ④.
5. Install the smart key in reverse steps.

#### 4.2.2 Emergency mechanical key Emergency mechanical key



1. Push the rear cover ① firmly as arrowed, and remove the rear cover ① after hearing a "click" sound.



2. Pick up the emergency mechanical key ② as arrowed.

## 4. Operation of systems and equipment

### 4.2.3 Door lock system

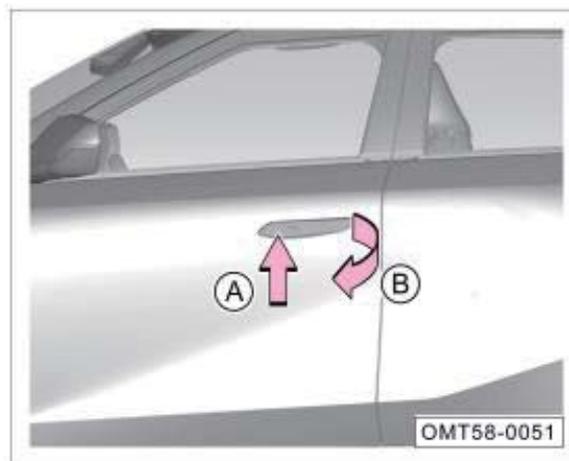
#### Central locking control button



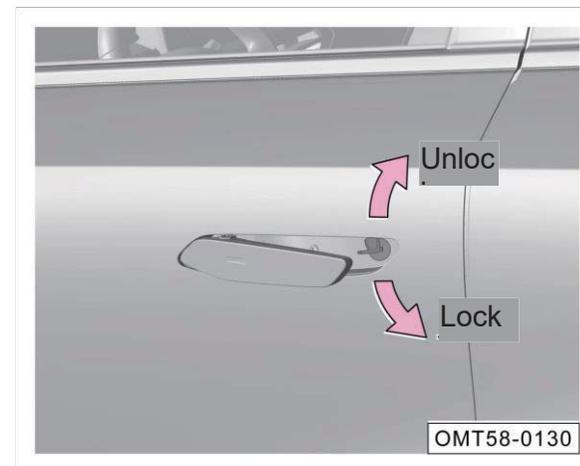
The central locking control button ① can be used to lock and unlock the doors in the car:

- To lock all doors: Press  end of the central locking button ①.
- To unlock all doors: Press  end of the central locking button ①.

#### Door lock hole



1. Take out the emergency mechanical key. => [See page 43](#)
2. Press the left side of the door handle in the direction of arrow A to tilt the right side of the door handle, and then pull the handle out at an angle in the direction of arrow B.



3. Insert the emergency mechanical key into the driver's door lock hole.
4. Turn the key clockwise to unlock the door.
5. Turn the key counterclockwise to lock the door.

#### NOTE

In case of low battery, the emergency mechanical key can be used to lock the driver's door only.

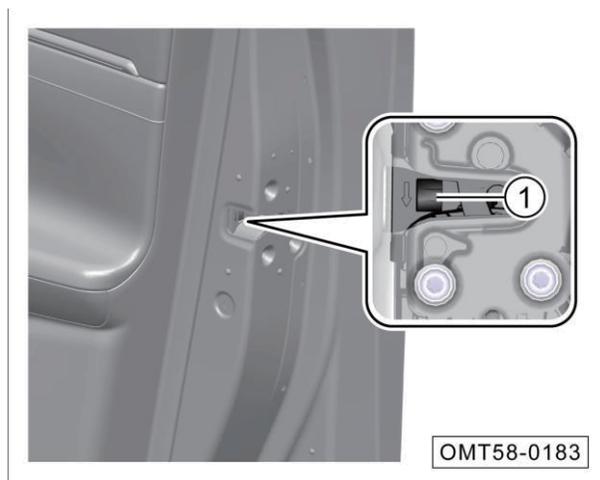
**Emergency locking of door**

When all doors cannot be locked due to low battery, the doors can be locked by the locking switch on the door lock in an emergency.

Locking of the driver's door

- Emergency locking of driver's door => See page 44

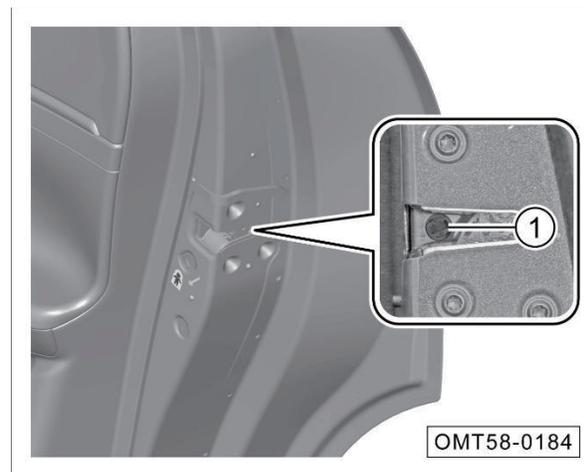
Emergency locking of front passenger's door



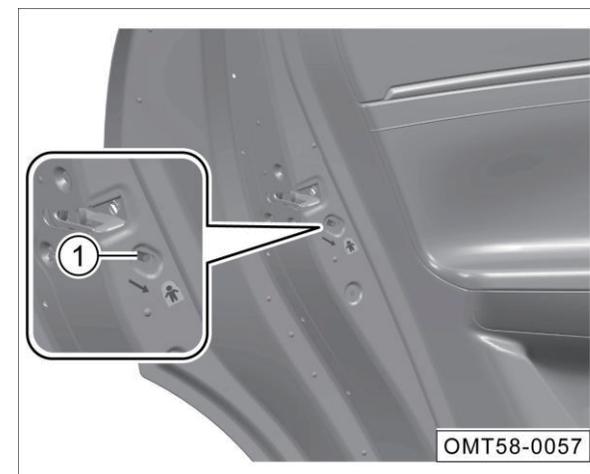
1. Take out the emergency mechanical key. => See page 43
2. Insert the mechanical key into the locking switch ①.
3. Pull down the locking switch ① to close the door, and then the corresponding door can be locked in an emergency.

4. Repeat the above operation to lock the doors on the other side.

Emergency locking of rear door



1. Take out the emergency mechanical key. => See page 43
2. Insert the mechanical key into the locking switch ①.
3. Turn the locking switch ① to close the door, and then the corresponding door can be locked in an emergency.
4. Repeat the above operation to lock the doors on the other side.

**Mechanical child safety lock \***

- Activation: Turn the child safety lock switch ① to the locking position as arrowed to activate the child safety lock.
- Deactivation: Turn the child safety lock switch ① to the unlocking position in the opposite direction of the arrow to deactivate the child safety lock.

### Electronic child safety lock \*



- Activation: Press the electronic child safety lock switch ①. Then the button indicator lamp will light up and the electronic child safety lock will be activated.
- Deactivation: Press the electronic child safety lock switch ① again. Then the button indicator lamp will go out and the electronic child safety lock will be deactivated.

#### **i** NOTE

The electronic child safety lock button integrates the right rear window locking function. After the electronic child safety lock is activated, the right rear power window control button cannot be used to control the corresponding window.

#### **i** NOTE

- Before driving the vehicle, if there is a child in the rear seat, make sure that the child safety lock is activated.
- When the child safety lock is activated, the door inside handle cannot be used to open the rear door. In this case, do not pull the door inside handle with force to avoid damage. Instead, open the rear door from outside of the vehicle.

### Automatic unlock function

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

#### **i** NOTE

The automatic unlocking function can be turned on or off through settings on the A/V system interface.

### Speed sensing door lock

With the doors closed correctly, if this function is activated and the vehicle reaches a certain speed or running time, the vehicle will be automatically locked.

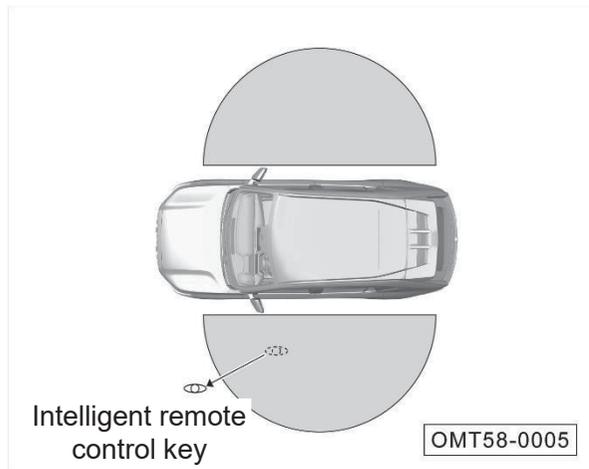
#### **i** NOTE

The speed-sensitive locking function can be turned on or off through settings on the A/V system interface.

### Collision unlock function

With doors locked and the 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 unlocking

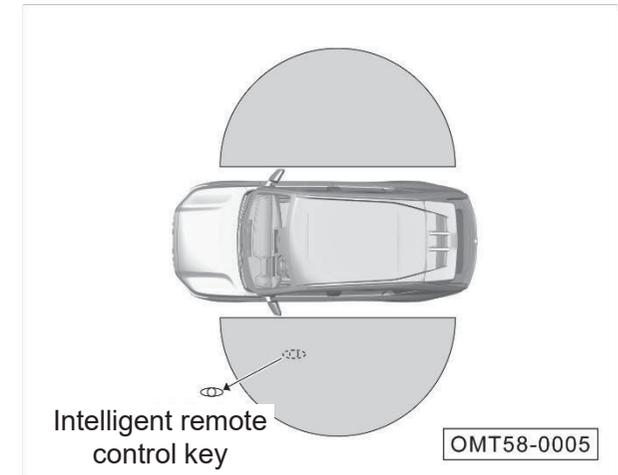


- When the intelligent active unlocking function is activated, if you carry the smart key to approach the vehicle, the vehicle will be automatically unlocked.

### i NOTE

- The intelligent active unlocking function can be turned on or off through settings on the A/V system interface.
- After successful intelligent active unlocking, the turn signal lamp flashes twice and the horn sounds twice.
- When the vehicle is parked for more than 7 days, in order to reduce the power consumption, intelligent active unlocking function will automatically be turned off. At this time, you need to use smart key or the door handle sensitive unlocking function for unlocking. When the vehicle is started, intelligent active unlocking function will be restored.

### Intelligent active locking



- When the intelligent active locking function is activated and the START/STOP button is set to "OFF" position, if you carry the smart key and keep a certain distance from the vehicle after all doors are closed, the vehicle will be automatically locked.
- If you stay near the vehicle for more than a certain period of time, the system will temporarily turn off the intelligent active locking function for the purpose of power saving. You need to open any door again, and then close it to activate the intelligent active locking function again.

## 4. Operation of systems and equipment

### **i** NOTE

- The intelligent active locking function can be turned on or off through settings on the A/V system interface.
- After successful intelligent active locking, the turn signal lamp flashes once and the horn sounds once.
- If the liftgate is not closed properly, an audible and visual alarm will be triggered after intelligent active locking is successful.
- If any door is not closed properly, the instrument cluster will indicate that the corresponding door is not closed properly.

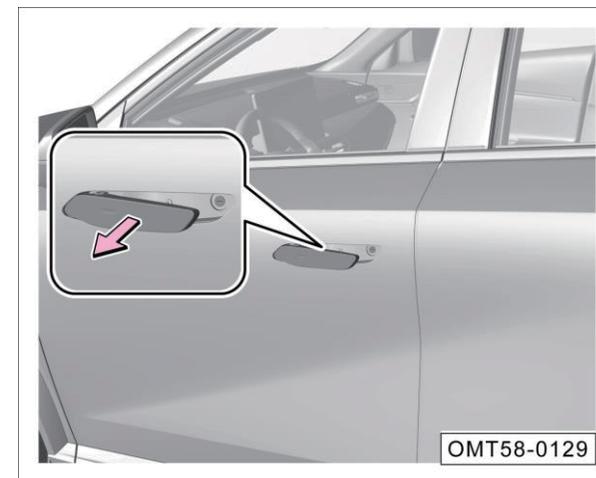
The intelligent active locking function will not work when any of the following conditions occurs:

- The START/STOP button is in the "ACC" or "ON" position.
- The smart key is in the vehicle.
- The smart key is too close to the vehicle.
- The smart key is in the trunk.
- Any door (including the hood and the liftgate) is ajar.
- Battery undervoltage.
- PEPS antenna fault.

### **👁** CAUTION

- The intelligent active locking function cannot automatically close the windows, so before leaving the vehicle, make sure that all windows are closed.
- After the locking-sensitive window closing function is turned on through the A/V system, the windows will automatically close when the intelligent active locking function is activated.

### 4.2.4 Flush-fit door handle



When the vehicle is unlocked, the electric flush-fit door handle will automatically unfold, and the door can be opened by pulling the door handle.

### **i** NOTE

The electric flush-fit door handle function can be turned on or off through settings on the A/V system interface. After closing, the door handle needs to be manually unfolded. => See page 44

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

 CAUTION

During vehicle cleaning, please retract the flush-fit door handle to avoid water entering the door handle and causing damage to the vehicle.

 Warning

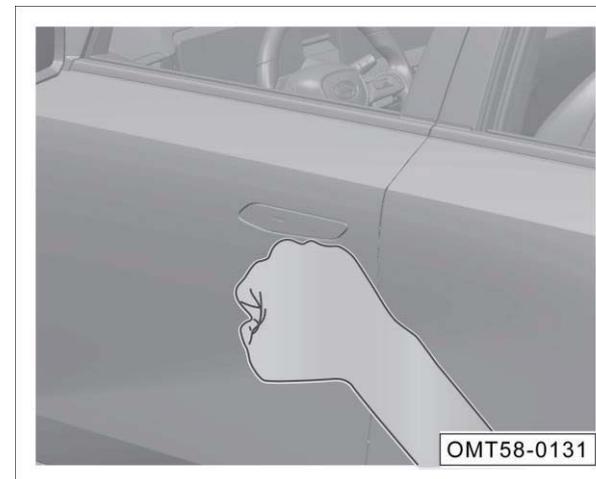
**Please be careful not to be pinched by the door handle when locking the vehicle.**

### De-icing instructions for flush-fit door handle at low temperature

When you approach the vehicle with the key, the vehicle will automatically detect the smart key. At this time:

Method 1:

1. If a small amount of ice accumulates between the door handle and the door, the door handle can be electrically unfolded. In that case, please press the smart key to electrically unfold and fold the door handle for 3 times to remove the residual ice.
2. If there is a lot of ice accumulated between the door handle and the door, the door handle cannot be electrically unfolded, and the handle end can be manually pressed for lifting to break the ice. If the handle still cannot be electrically unfolded, it needs to be manually deiced as follows:



- Work in a circular pattern, hit the surroundings of the door handle with a slight force at the bottom of the fist to break and release the accumulated ice, and press the smart key to electrically unfold the door handle.
- Increase the hitting intensity as needed and repeat the above steps.

 Warning

**The force around the door handle must not be too large, otherwise the door sheet metal will be dented to a certain extent.**

## 4. Operation of systems and equipment

3. After the door handle can move, open and close the door handle several times to remove the residual ice and ensure that the door handle can be fully retracted in place.

Method 2:

Remove the ice with hot water.

### 4.2.5 Door

#### Opening with door inside handle



- If the vehicle is locked, pull any door inside handle once to unlock the door; 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 45, even if rear door latch is unlocked, the door inside handle cannot be used to open the rear door. In that case, the rear door should be opened from outside of the vehicle. Do not pull the door inside handle with force to avoid damage.

#### CAUTION

- Before driving the vehicle, make sure that all doors are properly closed and locked.
- Do not pull the door inside handle during driving to avoid accidents caused by door opening.
- Before opening the door, you must pay attention to checking whether there are other vehicles or pedestrians outside the vehicle to avoid accidents caused by collisions when the door is opened.

### Opening with door outside handle

For operation instructions, please refer to =>See page 48

### Door closing



- To close the door in the car, grab the door armrest and pull it inward.
- To close the door outside, directly push the door toward the car.

#### i NOTE

- If the door is not closed properly, please reopen the door and then close it.
- If the door is not closed properly, the instrument cluster display will display a prompt message.

#### ⚠ Warning

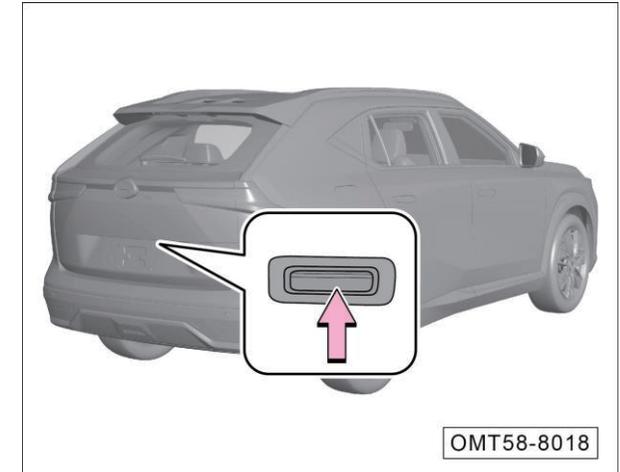
- **Make sure that all doors are closed before driving. Otherwise, the door that is not closed during driving will be opened, causing accidents or injuries.**
- **Open or close the doors only when the vehicle is stationary.**
- **Do not put your hands on the edge of the door when closing the door; otherwise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

### 4.2.6 Liftgate

#### Activation of smart key

You can open the liftgate with the smart key. For detailed operation methods, please refer to =>See page 41

#### Opening with liftgate button



Carry the smart key with you, and press the liftgate button within the operating range of the key to open the liftgate.

#### 4. Operation of systems and equipment

##### **i** NOTE

If the vehicle is unlocked and stationary, you can directly press the liftgate button to open the liftgate without carrying the smart key.

##### Opening with instrument panel button

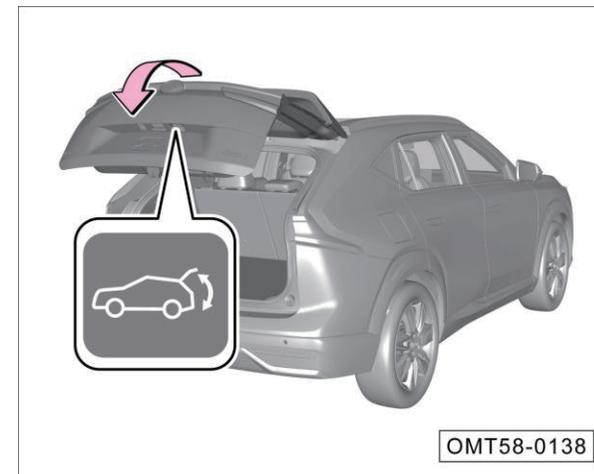


Press and hold the liftgate button on the instrument panel to open the liftgate.

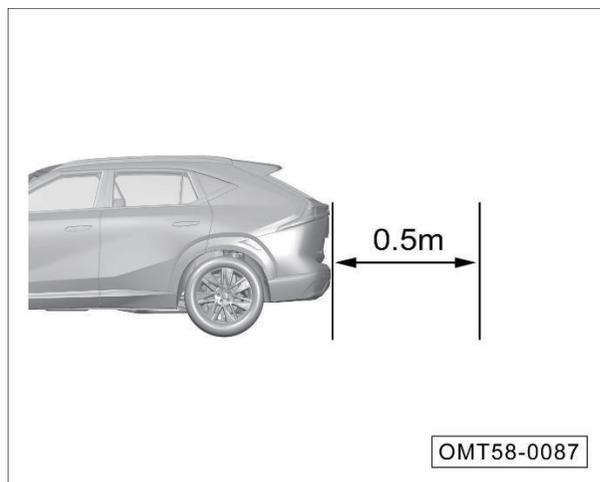
##### **i** NOTE

- When the power liftgate is not available or fails, all the above liftgate opening methods can only unlock the liftgate. After unlocking, the liftgate needs to be lifted for opening manually.

##### Custom liftgate opening height\*



When the opening height of the liftgate is between 55% and 98%, if you press and hold the inner switch of the liftgate for about 2 s, the second height setting of the liftgate will be successful.

**PLG Easy Open function\***

- When the START/STOP button is in the "OFF" position and the four doors and liftgate are closed, carry the smart key and approach the liftgate sensing area. When you are about 0.5 m away from the liftgate, the horn will sound once and the high-mounted stop lamp will start to flash. If you keep the original position or take a step back, the turn signal lamp will flash and the liftgate will open automatically. If you leave the liftgate area during the flashing of the high-mounted stop lamp (flashing 4 times), the liftgate will not open.

**i NOTE**

- When the liftgate is automatically opened, for warning purpose, the horn will sound once, the high-mounted stop lamp will flash 4 times, and the turn signal lamp will flash twice.
- If you leave the liftgate sensing area during the flashing of the high-mounted stop lamp, the function can be temporarily turned off and the liftgate will not be opened.
- If you press the  button on the smart key during the flashing of the high-mounted stop lamp, the function can be temporarily turned off and the liftgate will not be opened. It is necessary to open any door and then close it before the Easy Open Liftgate function can be triggered again.
- The Easy Open Liftgate function can be turned on or off through settings on the A/V system interface.

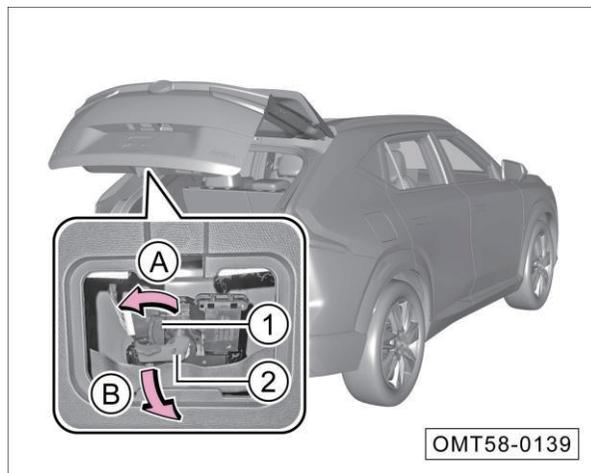
**👁 CAUTION**

- It is recommended to turn off this function during vehicle washing.
- When it is not necessary to open the liftgate, it is recommended to carry the smart key and leave the PLG sensing area.
- Before using the PLG function, please make sure that no one or obstacle is within the swing range of the liftgate.

## 4. Operation of systems and equipment

### Emergency opening of liftgate

When the vehicle is out of power or the liftgate cannot be opened normally due to a fault, you can try to open the liftgate from inside of the vehicle in an emergency:



For models with PLG

1. Fold down the rear seat back. => See page 77
2. Open the liftgate trim cover.
3. Toggle the liftgate emergency switch ① in the direction of arrow A to deactivate the liftgate electric suction function.
4. Toggle the liftgate emergency switch ② in the direction of arrow B to unlock and open the liftgate.

For models without PLG

1. Fold down the rear seat back. => See page 77
2. Open the liftgate trim cover.
3. Toggle the liftgate emergency switch ② in the direction of arrow B to unlock and open the liftgate.

### Closing of tailgate



Electric closing\*

- If you press the liftgate closing button, the PLG will be automatically lowered until it is closed. If you press this button again in the closing process, the PLG will stop.

Manual closing

When the power liftgate is not available or fails, the liftgate can be closed manually as follows:

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



 CAUTION

During closing of the liftgate, do not place any part of your body in the closing area of the liftgate to avoid pinching.

 NOTE

If the liftgate is not closed properly, the indicator lamp on the instrument cluster will light up. In that case, pull over and confirm whether the liftgate is closed under the premise of safety.

 CAUTION

- The liftgate shall always be closed firmly, otherwise an accident is liable to occur.
- Be careful when closing the liftgate to ensure that no one or no obstruction is within the swing range of the liftgate.
- After closing the liftgate, you must check whether it is locked to prevent its sudden automatic opening during driving.

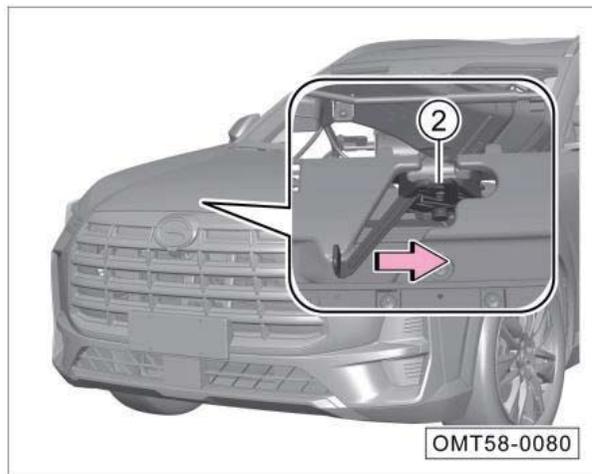
#### 4.2.7 Hood

##### Unlocking of engine hood

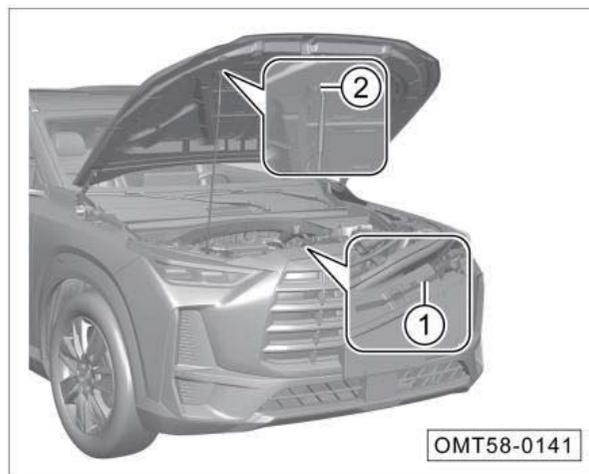


1. Pull the hood release handle ① to unlock the hood and make it bounce slightly.

#### 4. Operation of systems and equipment



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



3. 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 hood at the limit position.

#### Locking of engine hood

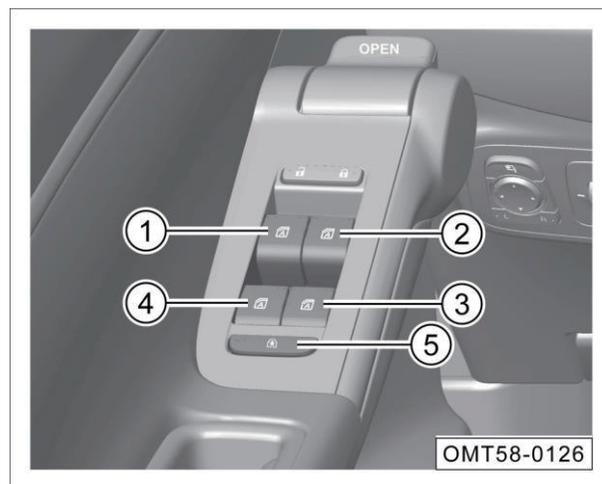
- Take out the stay bar from the fixing hole ② and place it on the stay bar bracket ①; Lower the hood to a height of about 30 cm from the lock body, and then release the hood to allow it to fall freely and be locked.

#### ⚠ Warning

- **Before driving, make sure that the hood is closed and locked; otherwise the hood may suddenly open during driving, resulting in dangerous situations and accidents.**
- **If the hood is not closed properly, the instrument cluster display will display an alarm message. Please stop driving immediately and close and lock the hood properly.**

## 4.2.8 Power window

### Driver's power window control button



- ① Left front power window button
- ② Right front power window button
- ③ Right rear power window control button
- ④ Left rear power window control button
- ⑤ Passenger's 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 you pull up the button ① to the limit position, the power window will be lifted automatically for closing until the window reaches the highest position.
- If the button ① is pressed down to the first stop position, the power window will be lowered for opening until the button is released or the window reaches the lowest position.
- If you press down the button ① to the limit position, the power window will be lowered automatically for opening until the window reaches the lowest position.
- If you press the passenger's window control button ⑤, the button indicator lamp will come on and the front and rear passenger's power window control buttons cannot work anymore. If you press this button again, this function will be deactivated and the button indicator lamp will go out.
- If you press the electronic child safety lock button ⑤\*, the button indicator lamp will come on and the rear passenger's power window control button cannot work anymore. If you press this button again, this function will be deactivated and the button indicator lamp will go out.

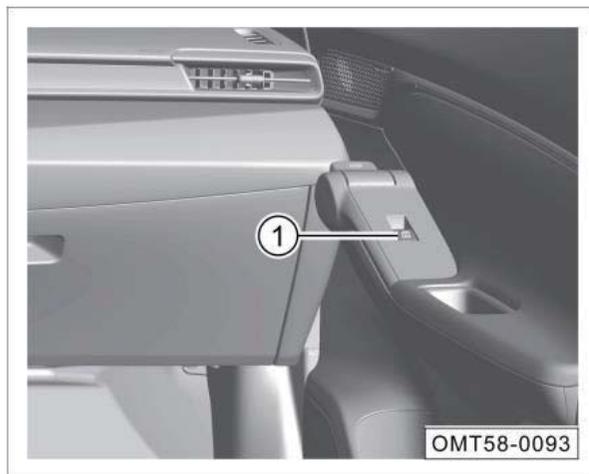
#### i NOTE

- During the automatic window lifting and lowering, you can press/lift the button ① to stop the window.
- The operation method of buttons ②, ③ and ④ is the same as that of button ①, only corresponding to the respective windows.
- For some vehicle models, only the driver's window supports the express-up/-down function. Please refer to the actual vehicle for specific function configuration.

#### 👁 CAUTION

- Please close all windows before leaving the vehicle.
- Be careful when closing the window. Do not put your hands on the edge of the window; otherwise there will be a risk of pinching.

### Passenger's power window control button



- For the operation methods of the passenger's power window control button ①, please refer to the driver's power window control button.

#### **i** NOTE

For some vehicle models, in addition to the above operation methods, the windows can also be opened or closed through the A/V system.

### Initialization of anti-pinch function\*

The power window shall be re-initialized if the power window regulator is not equipped and the anti-pinch function is invalid, or if the initialization is automatically invalid because the anti-pinch function is triggered multiple times in a short period of time.

1. Pull up the power window 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 function, and then continue to press the power window control button and hold it for about 2 s.
4. Pull up the power window control button and check whether the express-up function is available.

#### **⚠** Warning

- **The anti-pinch function of power window is disabled during initialization, and 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.**
- **If the power window system fails, please go to the GAC Motor authorized shop for inspection in time.**

#### Locking-sensitive window closing\*

If the vehicle is locked (by remote control, intelligent active locking) with the windows opened, the system will automatically close the windows to prevent the vehicle from being damaged due to the opened windows. The locking-sensitive window closing function can be turned on or off through settings on the A/V system interface. If the locking-sensitive window locking function fails due to abnormal status such as anti-pinch, the horn will sound 4 times to remind the user that the windows have failed to close.

**CAUTION**

The locking-sensitive window locking function only works when the battery SOC and parts are normal. Please confirm that the windows are completely closed before leaving the vehicle.

**Automatic window calibration\***

If the window fails to be automatically lifted due to external factors, the window will be lowered to the bottom for automatic calibration before being automatically lifted.

**CAUTION**

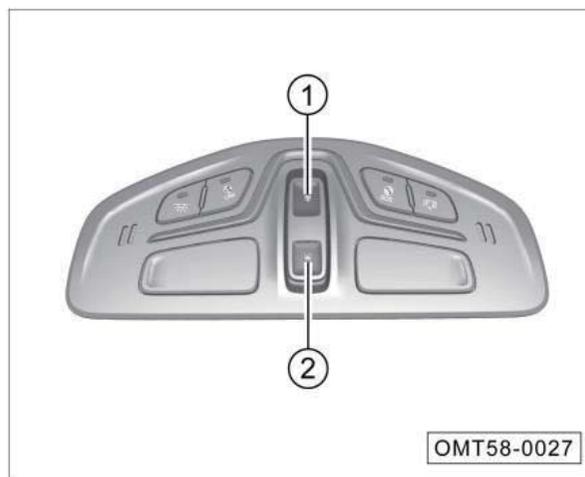
In special cases, one window may not be able to be lifted automatically, and manual lifting calibration is required.

**Window open warning\***

When the ENGINE START/STOP button is set to the "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 alarm message "Window Open".

**4.2.9 Electric sunshade**

Button operation



- If you press the switch ① briefly, the electric sunshade will move a short distance for slight opening and then stop. If you press and hold the switch ① for a certain period of time, the electric sunshade will automatically move to the full-open position.
- If you press the switch ② briefly, the electric sunshade will move a short distance for slight closing and then stop. If you press and hold the switch ② for a certain period of time, the electric sunshade will automatically move to the full-close position.

**i NOTE**

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

**CAUTION**

During the opening and closing of the sunshade, it is forbidden to touch the sunshade with hands or objects, otherwise the sunshade may wrinkle, come out, or even fail.

**Remote control operation**

You can close the sunshade remotely with the smart key. For detailed operation methods, please refer to =>See page 40

**i NOTE**

For some vehicle models, in addition to the above operation methods, the sunshade can also be controlled through the A/V system.

### Electric sunshade anti-pinch function

The electric sunshade has anti-pinch function during sliding and closing, which prevents the sunshade from pinching larger items when it is 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 opening direction and then stop.

#### CAUTION

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

#### Warning

- **The sunshade anti-pinch function cannot prevent pinching of light or thin objects.**
- **Be careful when closing the sunshade. Make sure that no one is in the movement range of the sunshade to avoid pinch.**
- **The sunshade may stop monitoring the obstacle in the position where it is about to be completely closed, and the anti-pinch function will be deactivated at this time.**
- **Do not try to activate the anti-pinch function with your hands or any part of your body; otherwise you may be pinched.**

### Electric sunshade initialization



- Press the sunshade closing switch ① to enable the sunshade to move to the full-close position.
- If you press and hold the sunshade closing switch ①, the sunshade will first move a certain distance for partial opening, and finally move to the full-close position.
- Release the sunshade closing switch ① to complete the sunshade initialization.

#### 4.2.10 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 armed, if you perform remote unlocking or approach the door with the smart key to trigger the intelligent active unlocking function, the doors will be unlocked to release the vehicle from the anti-theft status, 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, the hood and the liftgate are all closed, if you perform remote locking or take the smart key away from the vehicle to trigger the intelligent active locking function, the doors will be locked to enable the vehicle to be armed, and the turn signal lamps will flash once.

##### Activation of body anti-theft function

When the START/STOP button is in the "OFF" position and the vehicle is armed, if the door is unlocked by an illegal key or roughly, the anti-theft system will be triggered, 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 status, 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.

#### **i** NOTE

Before or during the anti-theft alarm is triggered, if you press the unlock button on the smart key or set 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 status;

##### Engine immobilizer

When the START/STOP button is set from the "OFF" position to the "ON" position with the body anti-theft status 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.

### 4.3 Lamps and vision

#### 4.3.1 Exterior lamps

##### Lamplight combination switch

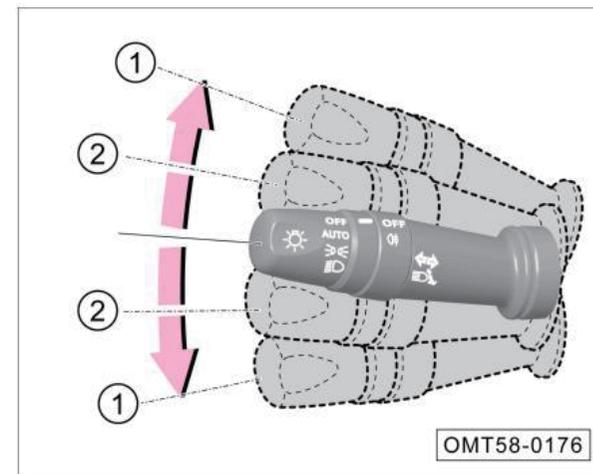


- ① Light switch
- ② Fog lamp switch

**i 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 vehicle washing conditions), similar to the fogging phenomenon on the windows when the vehicle is traveling in the rain, but this is not a fault.
- 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 indicator lamp



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

##### Lamp flashing for lane changing

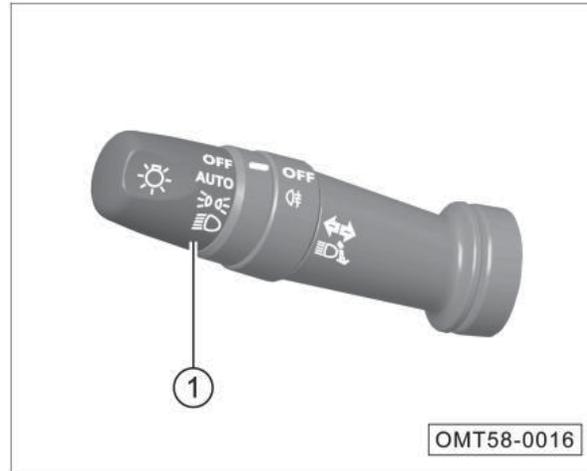
- In case of lane changing or overtaking, if you turn the lamplight combination switch up or down to the position ② quickly and then release it to the original position, the corresponding turn signal lamp and the indicator lamp ➡ or ⬅ on the ICM will flash 3 times.

- 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 ICM will flash continuously. Releasing the switch to the original position can stop the flashing.

**CAUTION**

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

**Lamplight switch**



When the START/STOP button is in the "ON" position, turn the lamplight control switch ① to turn on or off AUTO (automatic headlamp)\*, ② (position lamp), and ③ (low beam).

If the light switch is turned to the "OFF" position, all lamps will be turned off.

AUTO (automatic headlamp)

- Turn lamplight control switch to the AUTO position to turn on automatic headlamp.

**NOTE**

When the automatic headlamp is turned on, the vehicle will automatically turn on or off the headlamp according to the ambient light. -When the vehicle ambient light gradually becomes dark, the position lamps and the low beam will be turned on simultaneously; When the vehicle ambient light gradually becomes bright, the position lamps and the low beam will be turned off simultaneously.

## 4. Operation of systems and equipment

### CAUTION

- If the instrument cluster displays "Sensor Fault. Please Manually Control Light", the system will keep the low beam on for the sake of safety. At this time, you should manually control the light and go to the GAC Motor authorized shop for inspection in time.
- The automatic headlamp may be affected in the haze environment, so please manually turn it on in this case.

### Daytime running light

- When the engine is started and the position lamps are off, the daytime running lamps will be automatically turned on; when the low beams are turned on or the engine is stopped, the daytime running lamps will be automatically turned off.

### Position lamp

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

### NOTE

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

### Warning

- **When driving the vehicle at night or on a road with poor visibility, please do not only turn on the position lamps. Otherwise, accidents may easily occur.**

### Low beam

- Turn the lamplight control 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 ICM will come on.
- If you pull the lamplight combination switch backward to the original position, the high beam will be turned off.

### High beam 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 ICM 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 the "OFF" position with the headlamps and 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 alarm message "Lamp On".

### Headlamp delay off (follow me home) function

Within 10 minutes after switching the START/STOP button to the "OFF" position, if the lamplight control switch is turned from the "OFF" position to other positions and then back to the "OFF" position within 2s, the headlamp delay off function will be activated. In this case, the low beam will stay on for 30s, within which if one of the doors (including four doors, hood and liftgate) is opened, this function will be re-timed, and then the low beam will stay on for 80s, within which if all the doors are closed, this function will be re-timed again, and then the low beam will stay on for another 30s.

#### **i** NOTE

The headlamp delay function can be set through the A/V system.

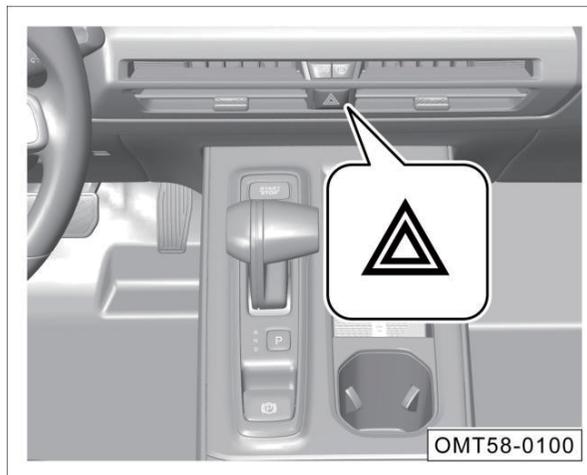
##### Fog lamp switch



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

- When the fog lamp switch ② is turned to the  position and then released to the "—" position, the rear fog lamp will come on.
- When the fog lamp switch ② is turned to the  position again and then released to the "—" position, the rear fog lamp will go out.

##### Hazard warning lamp



When START/STOP button is in any position, if you press the  switch, the switch red backlight will flash and the hazard warning lamp will be turned on. Press the switch again to turn it off.

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

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

- The car is involved in any failure.
- The car is at the tail end of a traffic jam.
- The vehicle tows another vehicle or is towed.
- The car 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 the event of an emergency, if the hazard warning lamp is faulty, other methods that comply with the relevant traffic regulations must be taken to attract the attention of persons on the road.

### Car assisted lighting

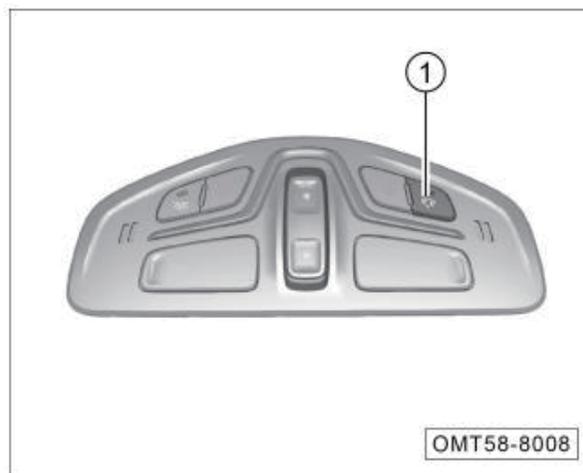
- If you press the  unlocking button on the smart key within the effective range, the position lamps will stay on for 25s for the purpose of helping you to approach your vehicle. If you press the  unlocking button on the smart key again, the position lamps can stay on for another 25s. When you switch the START/STOP button to the "ON" position after getting in the vehicle, the position lamps will go out.

### Car locating lighting

- If you press the  locking button on the smart key twice within 0.5s, the position lamps will stay on for 8s and the turn signal lamps will flash 3 times for the purpose of helping you to locate your vehicle.

### 4.3.2 Interior lamps

#### Automatic light-on function of roof lamps



- When the switch ① is pressed, the button indicator lamp will light up, and the automatic light-on function of the dome lamps will be activated; When the switch ① is pressed again, the button indicator lamp will go out, and the automatic light-on function of the dome lamps will be deactivated.

### Interior light delay-off system

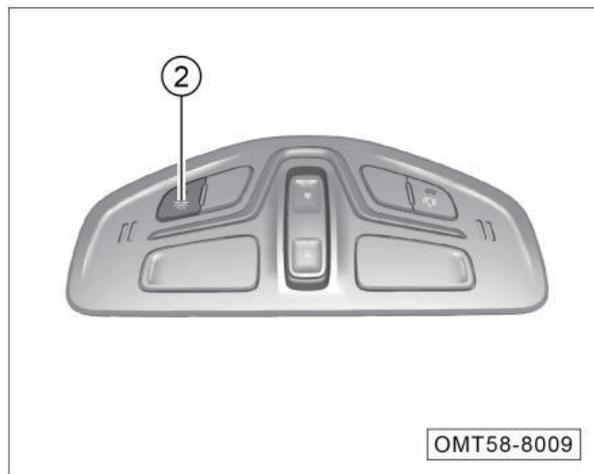
When the roof lamps are off and the automatic light-on function of the roof lamps is activated:

- If the ENGINE START/STOP button is in the "OFF" position and one of the doors is opened, the dome lamps will come on automatically; The dome lamps will go out about 30 s after this door is closed.
- If the ENGINE START/STOP button is in the "OFF" position and the doors are unlocked remotely, the dome lamps will come on automatically and then go out after about 30 s.
- If the START/STOP button is set from the "ON" position to the "OFF" position, the dome lamps will come on automatically and then go out after about 30s.

#### NOTE

When all the doors are closed and the dome lamps are on as mentioned above, if the vehicle is locked by remote control or the START/STOP button is set to the "ON" position, the dome lamps will go out automatically.

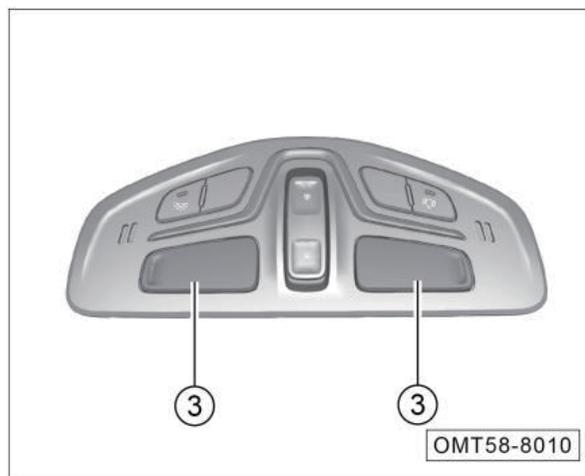
### Roof lamp



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

**i** NOTE

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



- When the front dome lamp is off, if you touch the front dome lamp ③ on the corresponding side, it will come on; Touch the front dome lamp again to turn it off.

**i** NOTE

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

### 2nd-row dome lamp



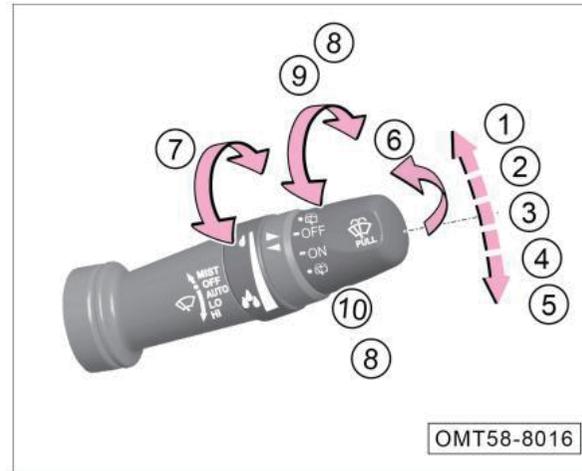
- When the 2nd-row dome lamp is off, if you press the switch ①, the lamp on the corresponding side will come on; Press the switch ① again to turn off the lamp on the corresponding side.

**i** NOTE

The switch ① will be invalid if it is not used to turn on the 2nd-row dome lamp.

**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.

**4.3.3 Wiper combination switch**

- ① MIST: Manual wiping
- ② OFF: front windshield wiper off
- ③ AUTO: Automatic wiping
- ④ LO: slow speed wiping
- ⑤ HI: high speed wiping
- ⑥ Front windshield washer system on
- ⑦ Turn rear windshield washer system
- ⑧ : Turn on rear windshield washer system
- ⑨ OFF: Turn off rear windshield washer or wiper

- ⑩ ON: Turn on rear wiper

- Adjust sensitivity of automatic wiping
- Intermittent wiping time adjustment

**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 returns to the initial position, and the front wiper stops moving after wiping once.
- If the wiper combination switch is turned from the initial position to the limit ① MIST position and then not released, the front wiper will work all the time.

### OFF: wiper off

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

### AUTO: Automatic wiping

- If the wiper combination switch is turned to the ③ AUTO position, 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 car speed.
- The automatic wiping function can be set to on or off through the A/V system. When it is turned off, the wipers are switched to the MIST position, and the wiping interval can be adjusted by adjusting the knob ⑦.

### CAUTION

- Before activating the automatic wiping function in winter, please check whether the wiper blade is frozen.
- It is recommended to turn off the automatic wiping function when cleaning the vehicle.
- The automatic wiping function is an auxiliary function, so the driver should manually operate the wipers when necessary according to the driving situation to ensure driving safety.

### LO: slow speed wiping

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

### HI: high speed wiping

- If the wiper combination switch is turned to the ⑤ HI position, 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 car to the ⑥ position, the front washer will start spraying water and then the front wiper will start wiping.
- If the wiper combination switch is released to return to its original position, the front windshield washer system will be stopped and the front wiper will wipe once after 6s.
- After the front wiper stops wiping for 6s, it will wipe once again so as to clear the residual water stains from the glass.

### Rear windshield washer system on

- When the liftgate is closed, if you turn the rear wiper knob up/down to the limit position ⑧  position, the washer will start spraying water and then the rear wiper will start wiping.

### ON: Turn on rear wiper

- When the liftgate is closed, if you turn the rear wiper knob to the limit ⑩ ON position, the rear wiper will start wiping.

### OFF: Rear windshield washer or rear wiper off

- If you turn the rear wiper knob to the limit ⑨ OFF position, the rear windshield washer system will be turned off or the rear wiper will stop wiping.

#### 4.3.4 Windshield

##### Windshield



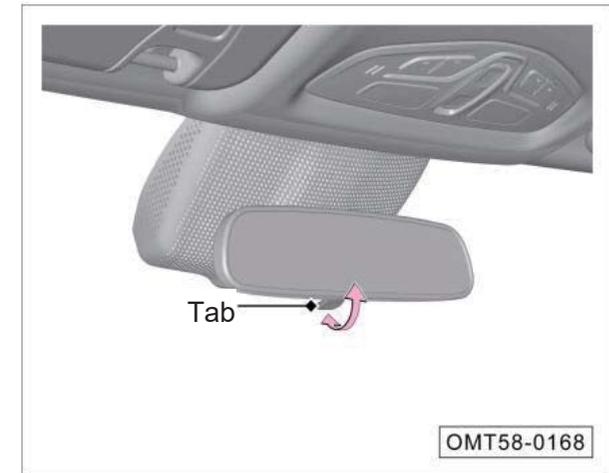
The front windshield uses green glass.

#### Warning

- Always keep the glass surface clean.
- Please affix the necessary identifications according to local traffic regulations. Do not use stickers or hang objects on the surface of the front windshield glass, otherwise the front view will be obstructed, which may easily cause traffic accidents.

#### 4.3.5 Rearview mirror

##### Interior 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.

## 4. Operation of systems and equipment

### Exterior rearview mirror

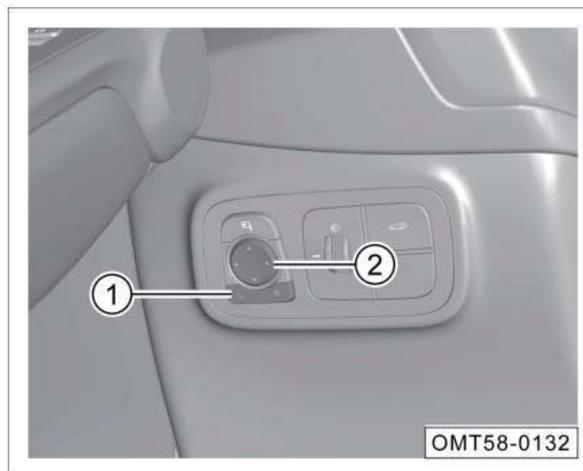
#### **i** NOTE

If the function of the exterior rearview mirror fails, 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 car and the following vehicle by the reflected image, otherwise accidents may occur due to wrong judgment.**

### Electric adjustment



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

- Press "L" or "R" button on the selection button ① to select the left or right exterior rearview mirror.
- Press the adjusting buttons on ② to adjust the selected exterior rearview mirror to the appropriate rearview angle.
- After adjusting the exterior rearview mirror, restore the selection button ① to its original state.

#### **⚠** Warning

**During driving, do not adjust the exterior rearview mirror to avoid loss of control of vehicle and danger due to distraction.**

**Electric folding\***

- Press the button ③ to fold the exterior rearview mirror electrically.
- Press the 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**

The automatic folding function of the exterior rearview mirror can be set to on or off through the A/V system.

**👁 CAUTION**

- If the electric folding function fails or the vehicle does not have the electric folding function, the mirror can be manually folded and then manually unfolded. 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, resulting in failure of electric folding function.
- Be careful when operating the electric folding function of the exterior rearview mirror to prevent your fingers from being pinched by the rearview mirror and its base.

**Defrosting and defogging function\***

Enter the A/C control main interface through A/V system, click the  soft key for on/off, and when the function is activated, the  button indicator lamp will come on.

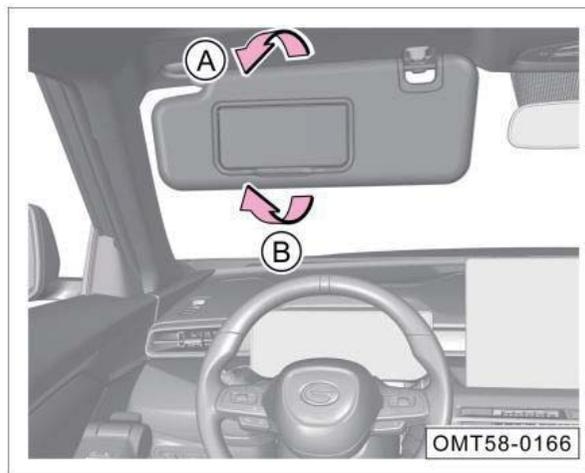
- Turn on the defrosting and defogging function to clear the fog or frost on the exterior rearview mirrors and the rear windshield.
- This function will be deactivated automatically after about 15 minutes or clicking the  soft key again can manually deactivate this function; when this function is deactivated, the button indicator lamp will go out.

## 4. Operation of systems and equipment

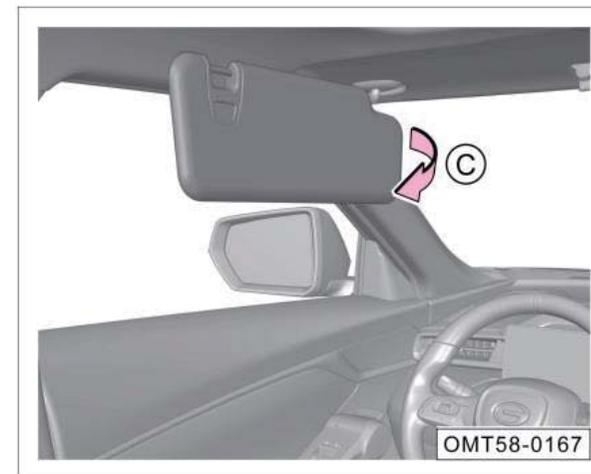
### CAUTION

- If there is residual fog or frost 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 the defrosting and defogging function is out of use, please deactivate it to avoid wasting battery power.

### 4.3.6 Sun visor



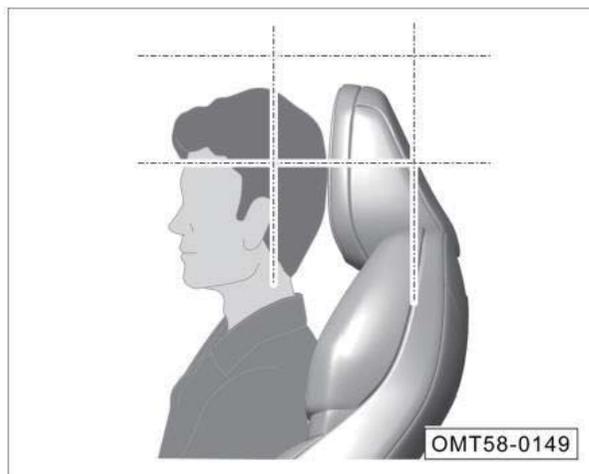
- Turn down the sun visor on the driver's side or front passenger's side in the direction of arrow A to shelter from the incoming sunlight from the front windshield.
- To use the vanity mirror, just turn down the sun visor and pull open the vanity mirror cover in the direction of arrow B



- 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.

## 4.4 Seats and storage facilities

### 4.4.1 Headrest



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

All occupants must adjust the headrests to the correct position (as shown in the figure) according to their body shapes.

### Warning

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

- Do not adjust the headrest 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.

### NOTE

The adjustment method of the headrests\* of the rear seats is the same.

## 4. Operation of systems and equipment

### 4.4.2 Front seat

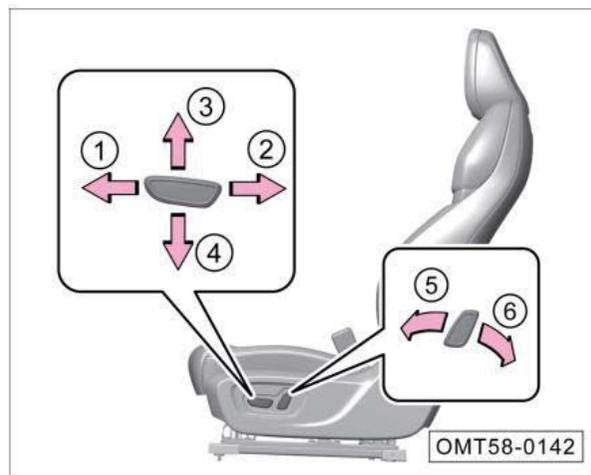
#### **i** NOTE

When measuring the depth of the seat cushion, be sure to adjust the front and rear positions of the seat to the middle of the slide rail and the seat back to the normal operating state (25°).

#### **⚠** Warning

- Do not place objects under the front seats, for these objects may be caught between the seat and the slider rail, hindering the seat from being locked.
- Do not adjust the seats when the vehicle is traveling as this is likely to cause casualties. Therefore, please adjust the front seat only when the vehicle is in a stationary status.
- Never leave children alone in the vehicle, because the power seat adjustment mechanism still works after the START/STOP button is turned 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 adjust the seat to slide forward or backward.

Upward and downward adjustment of seat:

- Pull the switch in the direction of arrow ③ or ④ to adjust the seat upward or downward.

Forward and backward adjustment of seat back:

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

#### Manual seat



Forward and backward adjustment of seat:

- Pull the adjusting handle 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.

Upward and downward adjustment of seat:

- Pull the switch in the direction of arrow ③ or ④ to adjust the seat upward or downward.

**Seat heater\***

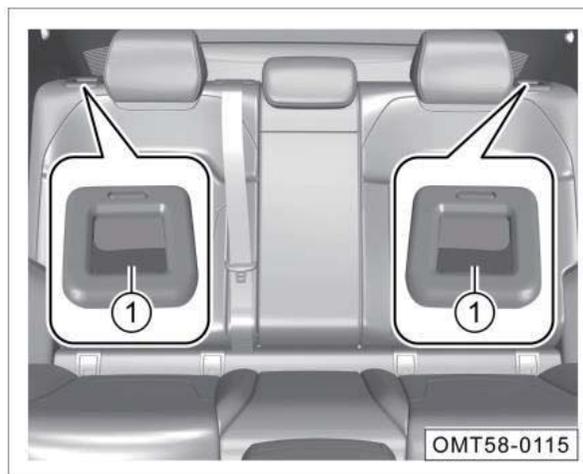
Set the START/STOP button to "ON" position and click the seat heating icon  at the bottom of A/V system main interface to pop up the seat heating setting interface, where you can set the seat heating function.

**CAUTION**

- Do not kneel on the seat or apply pressure to a point on the seat cushion or seat back, in order to avoid damaging the electrical components in the seat.
- If you feel no temperature change of the seat or feel hot after turning on the heater for a long time, please immediately turn off the seat heater and go to the GAC Motor authorized shop for inspection in time.

**Warning**

**If you cannot sense the temperature change of the seat heater function, please do not continue to use this function to avoid burns by the heater.**

**4.4.3 Rear seat****Folding/unfolding of rear seat**

Folding down:

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

Unfolding:

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

**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.

## 4. Operation of systems and equipment

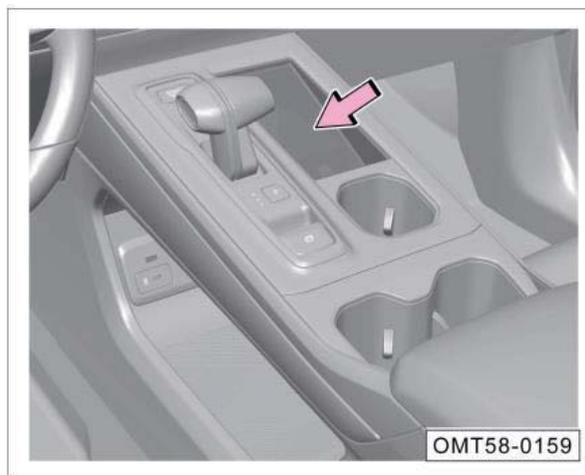
### 4.4.4 Storage facilities

#### Door interior trim panel storage compartment



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

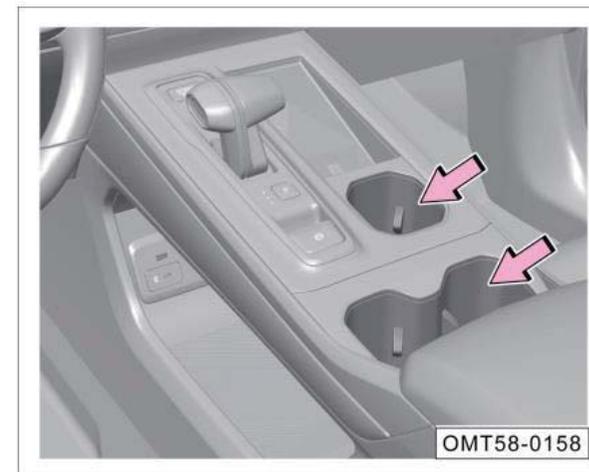
#### Instrument panel storage compartment



#### **i** NOTE

This area is used as the mobile phone wireless charging area, so be sure to deactivate the mobile phone wireless charging function before placing articles in it. => [See page 81](#)

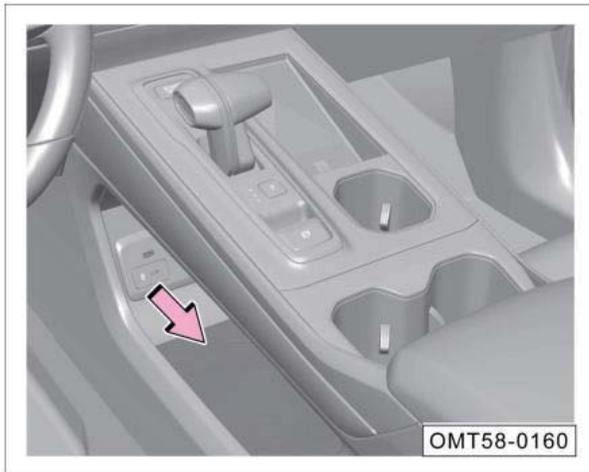
#### Cup holder



#### **⚠** Warning

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

Instrument panel lower storage compartment



- Place books, ipad, etc. here.

Front center console 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 to place books, foldable umbrellas and other articles.

## 4. Operation of systems and equipment

### Front passenger's side glove box



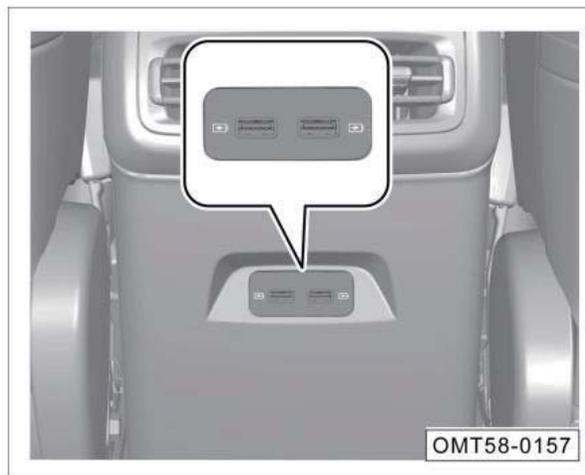
- Pull the handle to open the glove box and place articles such as file bags.
- Push back to close the glove box until you hear a "click" sound.

#### Warning

**The glove box must be closed when the car 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.**

### 4.4.5 Power outlet/charging interface

#### Rear USB port of central armrest box

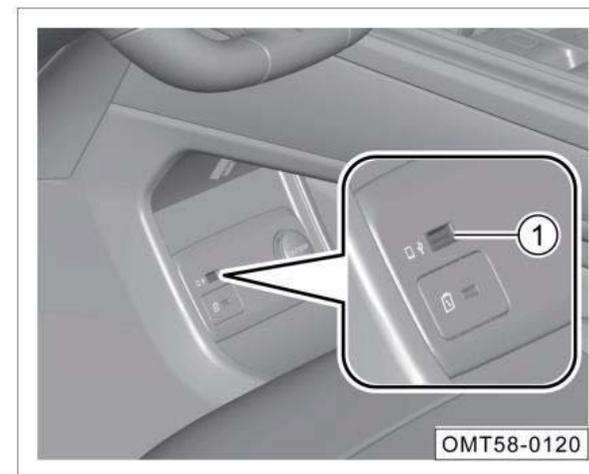


- When the ENGINE START/STOP button is in the "ACC" or "ON" position, a device to be charged can be connected directly for charging.

#### NOTE

The rear USB port is only used for charging.

### Front USB interface

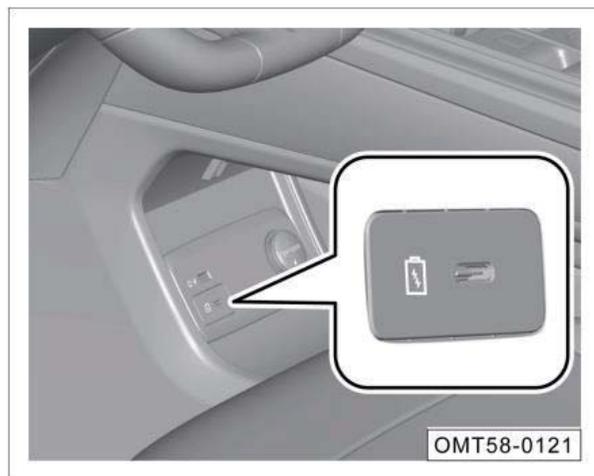


- When the ENGINE START/STOP button is in the "ACC" or "ON" position, a mobile device can be connected directly for use.

#### NOTE

USB1 interface ① supports the charging and media source playback.

**Front TYPE-C interface**

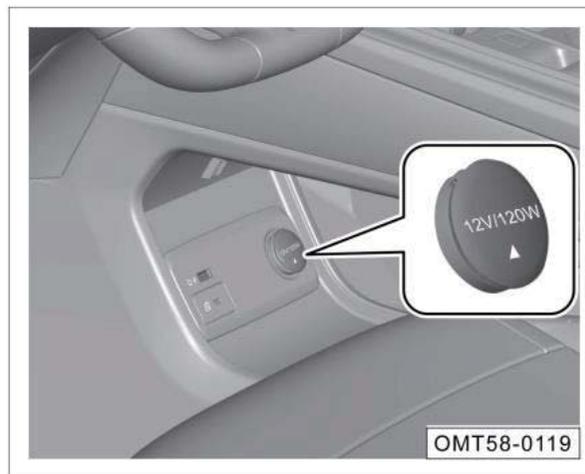


- When the ENGINE START/STOP button is in the "ACC" or "ON" position, a mobile device can be connected directly for use.

**i NOTE**

The TYPE-C interface is only used for charging.

**Front 12V power outlet**



- With the START/STOP button in the "ACC" or "ON" position, after the power outlet cover plate is opened, a device to be charged can be connected.

**i NOTE**

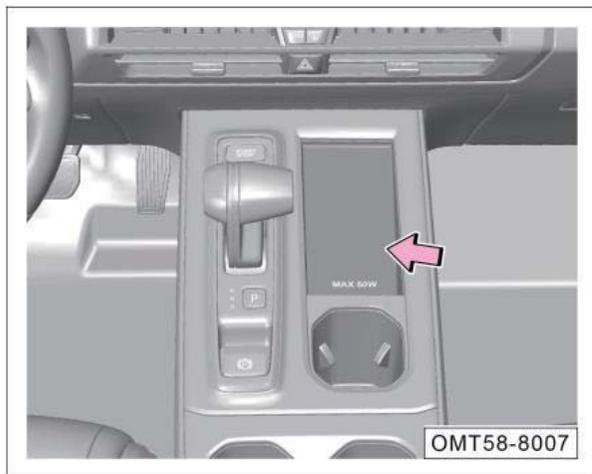
Devices up to 12V/120W are supported.

**4.4.6 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.

**i NOTE**

The mobile phone wireless charging system is not applicable to all mobile phones, but only to mobile phones with wireless charging function. GAC will not assume responsibility and bear losses for any accident caused by the use of mobile phones without wireless charging function or other wireless charging receivers.



The effective wireless charging area is located on the right side of the gearshift lever. Please place the mobile phone in the center of the wireless charging area during charging to ensure the normal charging of the mobile phone.

### Mobile phone wireless charging switch

When the START/STOP button is in "ON" position:

- Method 1: Click the soft key of "mobile phone wireless charging" through the A/V system to turn on or off the mobile phone wireless charging system.
- Method 2: Click the soft key in the A/V system status bar  to turn on or off the mobile phone wireless charging system.

#### NOTE

After mobile phone wireless charging system is turned on, the  icon on status bar lights up. The icon status will change as the mobile phone wireless charging system is used. If you click the icon, the corresponding text message will pop up.

### Symbol status

Symbol	Color	Status
	Gray	Close
	White or black	Standby
	Green	Charging/Fully charged
	Red	Charging failure
	Gray	Disabled

**i 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 terminated.
- Only one mobile phone can be charged at a time, and the maximum charging power is 50W.
- The thick mobile phone protective case may cause the charging performance to decrease or failure.
- 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 mobile phone wireless charging function involves both the AVNT and the mobile phone. If the AVNT or the mobile phone is faulty, the charging may become impossible.

**i NOTE**

- The charging of the mobile phone may be discontinued when the temperature is too high, and will be continued after the temperature decreases.
- The wireless charging function may affect the normal operation of implanted medical devices including pacemakers. Please consult your doctor for precautions before using this function.
- When the brake pedal is depressed or the door is closed, the wireless charging may be interrupted for a short time.

**👁 CAUTION**

- Do not spill water in the front storage box to prevent any damage to the electronic components due to water entering the wireless charging module
- Do not throw small objects such as pebbles, sediment, bread crumbs or paper scraps into the charging area. Otherwise, they will enter the internal fan, causing unusual noise.
- 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 in time.
- During the mobile phone wireless charging, if metal foreign matters are found between the mobile phone and the charging area, do not remove the foreign matters immediately by hand to avoid scalding. The wireless charging function shall be turned off immediately and the foreign materials shall be removed after cooling down.

### Warning

- **Before charging, please ensure that NFC card key, credit card, bank card, bus card, ID card or other magnetic items are not in the charging area, otherwise they may be damaged during charging.**
- **Before charging, please ensure that coins, keys, rings and other metal foreign matters are not in the charging area, otherwise they may be heated during charging and cause potential safety hazards.**
- **If you want to place metal foreign matters in the mobile phone wireless charging area, please turn off the wireless charging function through the A/V system menu to avoid heating the metal in the charging area, which may cause potential safety hazards.**
- **When the driver is not in the vehicle, do not place the mobile phone in the vehicle for charging, so as to avoid unnecessary safety incidents.**
- **During driving, do not check the charging status of the mobile phone for a long time, for fear of traffic accidents.**

### 4.4.7 Trunk

In order to ensure the maneuvering stability of the whole car, 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 articles in the trunk must be fixed, otherwise they may fly forward and cause personal injury to the occupants in case of an emergency braking or an accident.**
- **Never place fragile, flammable and explosive articles in the trunk!**

### Trunk capacity

- Fold down the rear seat back to increase the trunk capacity. => [See page 77](#)

### CAUTION

When placing liquids in the trunk, make sure that the container is sealed and the liquid does not leak. Avoid placing liquids on the seat back folded down to prevent liquid leakage and thus wetting the seat.

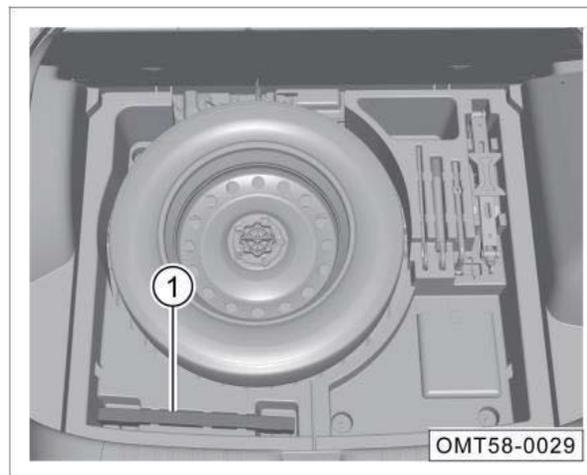
### Driver's tools in trunk

#### Trunk carpet



- Pull up the tether to open the trunk carpet.

#### Warning triangle



1. Pull up the tether to open the trunk carpet.
2. There is a warning triangle ① in the trunk storage box. Use of warning triangle. => See page 196

#### Driver's tools/spare tire



1. Pull up the tether to open the trunk carpet.
2. There are spare tire ① and driver's tools ② in the trunk storage box. => See page 195

4.4.8 Roof rack



The roof rack equipped on this vehicle is a decorative part and cannot directly bear articles.

4.4.9 Accessories and modification

Data labels and signs indicating important data and information about the use of the vehicle are affixed to the fuel tank cap, 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 car 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 car, please be sure to consult the GAC Motor authorized shop before installing accessories or replacing parts.

The accessories and parts approved by GAC are recommended for you. The parts other than GAC ones will not be covered by the warranty.

 Warning

**The installation of inappropriate accessories or the modification of the car may affect the maneuvering stability and other performances of the car, 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 car; therefore, the genuine high-quality additions are recommended to ensure a comfortable driving environment.

**Modification of car**

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:

- The installation of larger or smaller wheel and tire 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 car or installation of inappropriate accessories may easily cause faults 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 airbags, resulting in system faults and 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 operation or modification of the car (such as the modification of the engine, brake system, or components that affect the performance of the wheels and tires) will affect the SRS function, causing serious casualties.**
- **Do not install wheels and tires that are not approved by GAC.**
- **The modifications of the front and the front compartment of the vehicle may weaken the function of the pedestrian detection system and violate road traffic regulations.**

## 4. Operation of systems and equipment

### 4.5 HVAC system

#### 4.5.1 General description

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

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

If the car is often driven 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.**

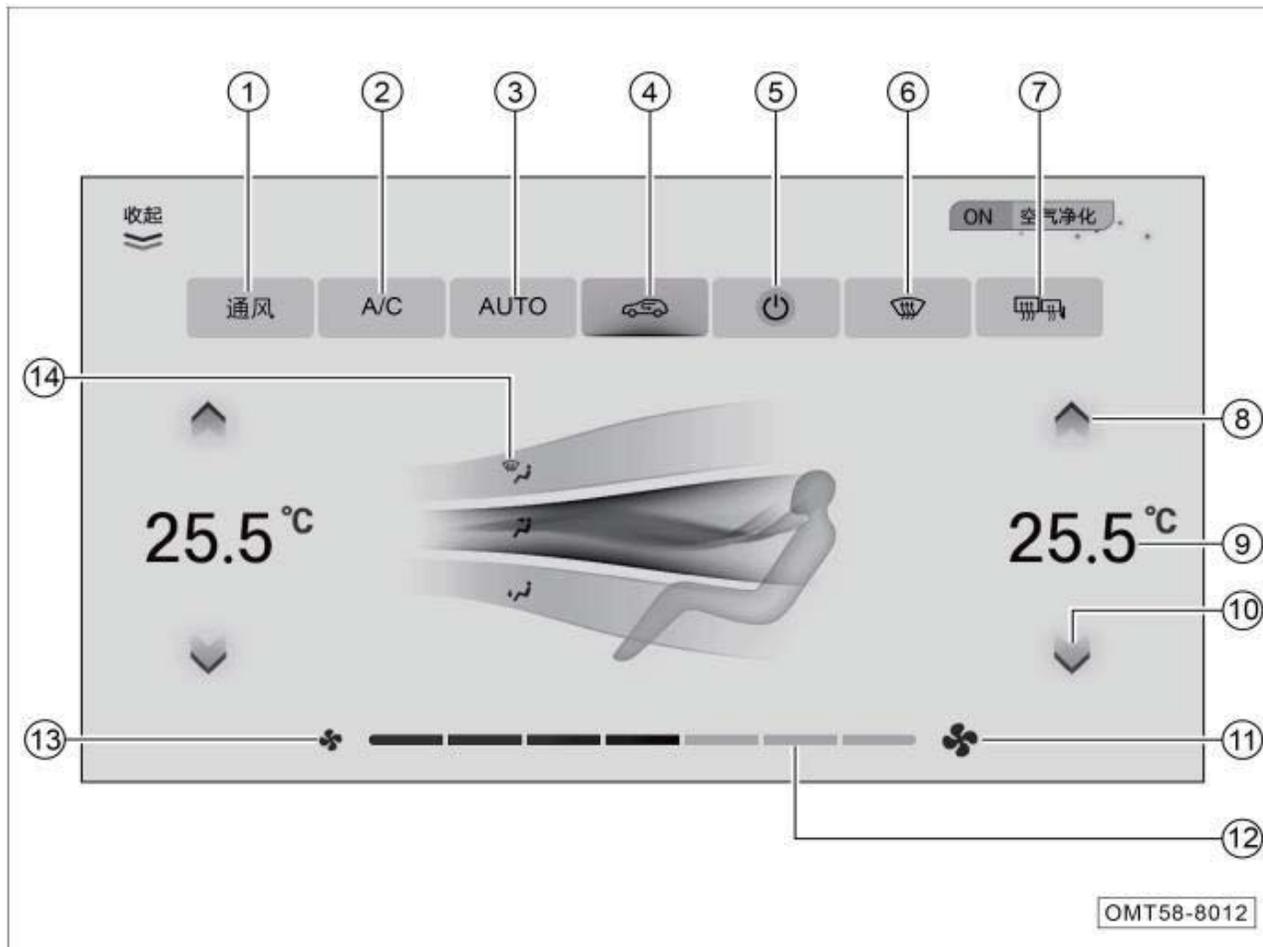
#### CAUTION

If the HVAC system has failure (such as no cooling, odor in outlet air, etc.), please go to the GAC Motor authorized shop for inspection.

#### NOTE

- 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 inlet and ensure normal air inlet of HVAC system.
- The HVAC system can achieve its maximum effect with the windows and sunroof 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.

## 4.5.2 HVAC system

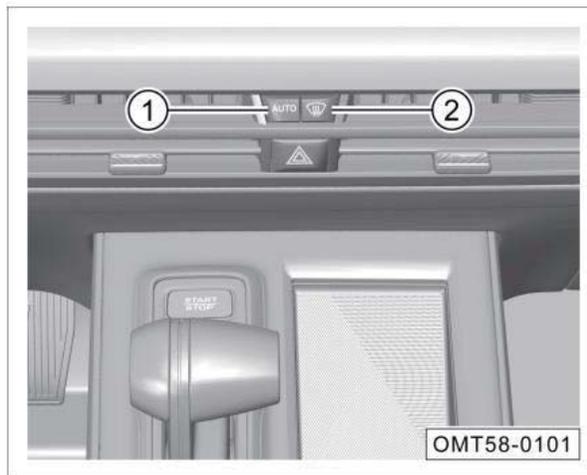
**Description of HVAC control interface**

- ① Ventilation mode soft key
- ② "A/C cooling" soft key
- ③ "AUTO" soft key
- ④ Recirculation mode soft key
- ⑤ A/C ON/OFF soft key
- Fresh air mode soft key
- ⑥ "Front windshield defrosting/defogging" soft key
- ⑦ Rear windshield and exterior rearview mirror defrosting/defogging soft key
- Rear windshield defrosting/defogging soft key
- ⑧ Temperature up soft key
- ⑨ Temperature display
- ⑩ Temperature down soft key
- ⑪ Air volume up soft key

## 4. Operation of systems and equipment

- ⑫ Air volume position display
- ⑬ ❄ "Air volume down" soft key
- ⑭ 🌀 "Air supply mode" soft key

### HVAC control buttons



- ① AUTO button
- ② Front windshield defrosting/defogging button

### HVAC scene

When rapid heating or cooling is required, the user can select the rapid cooling and heating scenes through the HVAC scene interface to quickly cool down or heat up.

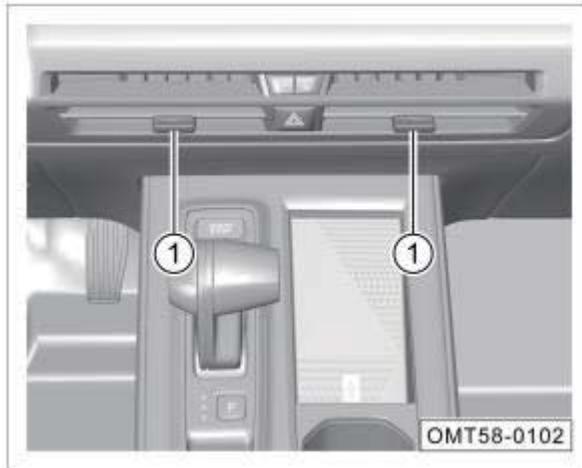
### 4.5.3 A/C air outlet

#### Panel side air outlet



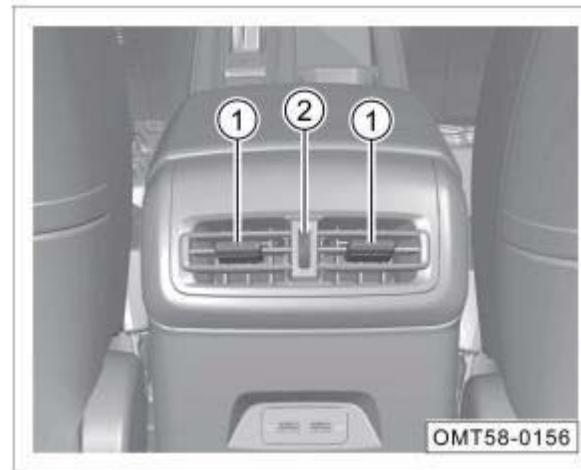
- Toggle the paddle ① to adjust the air direction or close the air outlet.

**Panel center 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.

## 4. Operation of systems and equipment

### 4.6 A/V system

#### 4.6.1 Basic operations



Description of function areas in main interface of A/V system:

- ① System status bar
- ② Drop-down menu area
- ③ Smart scene area
- ④ Smart card area
- ⑤ Bottom toolbar
- ⑥ Application menu interface

#### **i** NOTE

The protection function of the A/V system may be triggered under high temperature conditions to dim the display, and the display brightness can be restored after the temperature of the vehicle is lowered, which is a normal phenomenon.

### CarPlay

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

#### Method 1:

- Connect the USB cable to the USB port of the mobile phone and the AVN. After the connection is successful, the system will automatically switch to the CarPlay main interface, and the "Apple CarPlay" icon on the system interface will be highlighted.
- In other function interfaces, you can click the "Apple CarPlay" icon in the application menu to enter the CarPlay in-vehicle system.

#### Method 2:

- Turn on Bluetooth on the mobile phone, search for the mobile phone device on the Bluetooth connection interface of the vehicle at the same time, click the mobile phone device, and select CarPlay in the selection box interface after successful connection for wireless connection.

### Return to AVN:

- Click the "GAC" icon in the CarPlay application menu interface to return to the AVN.
- Click the "Apple CarPlay" icon in the application menu interface of the A/V system to enter CarPlay mobile phone connection interface again.

#### NOTE

- The functions and applications supported by CarPlay are subject to those published on Apple's official website. According to the information released by Apple in 2019, Apple CarPlay supports iPhone5 and later.
- 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.

### Android Auto connection

This system can realize the projection of mobile phone to the on-board A/V system, and share the functions of mobile phone call, navigation, music, etc.

When Android Auto is used, the mobile phone and on-board A/V system can control each other. After successful connection, the mobile phone can be used for playing music, playing videos, navigation and making calls on the A/V system, and the actual operations depend on the mobile phone system.

#### NOTE

- Android Auto currently supports Android 5.0 or higher version of Android mobile phones.
- The Android Auto interface will be updated with the update of the App version. Please refer to the actual version for the specific interface.
- When Android Auto is abnormal, it is recommended to unplug and plug the connection cable. At the same time, it is recommended to check whether the connection cable is good. If it is damaged, it is recommended to replace it with a new original connection cable.

## 4. Operation of systems and equipment

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### How to obtain the application

- Method 1: If Android Auto APP is not installed on the mobile phone, connect the mobile phone to the A/V system through the USB cable, and the connection interface will be displayed. At this time, Android Auto APP can be downloaded through the link pushed to the mobile phone by the system.
- Method 2: Search for the Android Auto APP in the browser or Android app store and download it.

### Connection steps

#### Method 1: Wired connection.

1. Install Android Auto APP on the mobile phone.
2. Connect the mobile phone to the vehicle A/V system using a USB cable.
3. Click the Android Auto icon in the A/V system menu bar. Then connect the mobile phone according to the A/V system prompts.

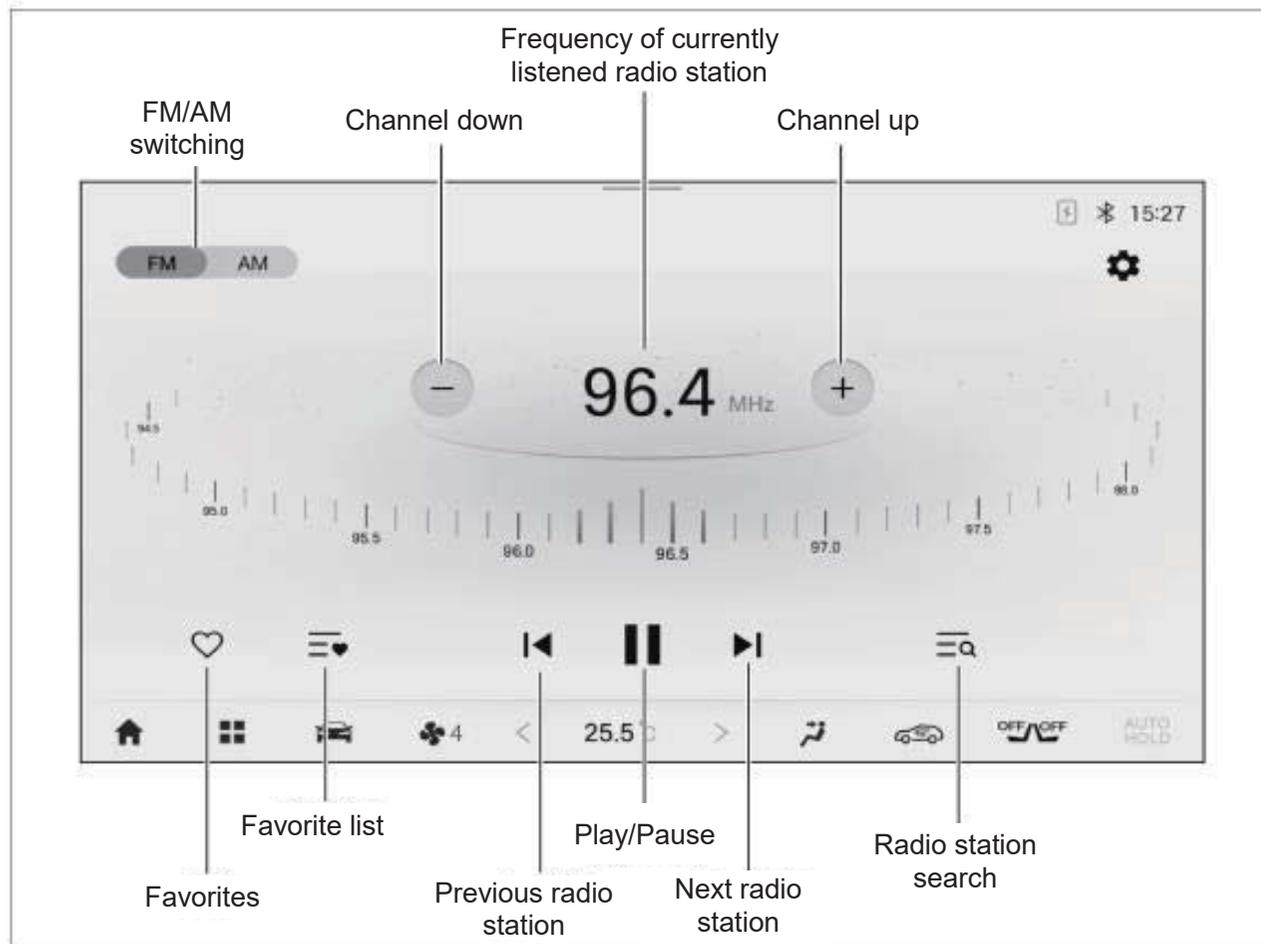
#### Method 2: Wireless connection.

1. Install Android Auto APP on the mobile phone.
2. When using wireless connection, make sure that the Bluetooth and Wi-Fi functions on both the mobile phone end and the vehicle are enabled.
3. Click the "Android Auto" icon in the main interface of the A/V system to enter the device connection list, and click the Android Auto device list to connect the device.

### Exit mode

- Method 1: Unplug the USB cable and exit the Android Auto system.
- Method 2: On the main interface of Android Auto, click the exit icon to exit the Android Auto system.

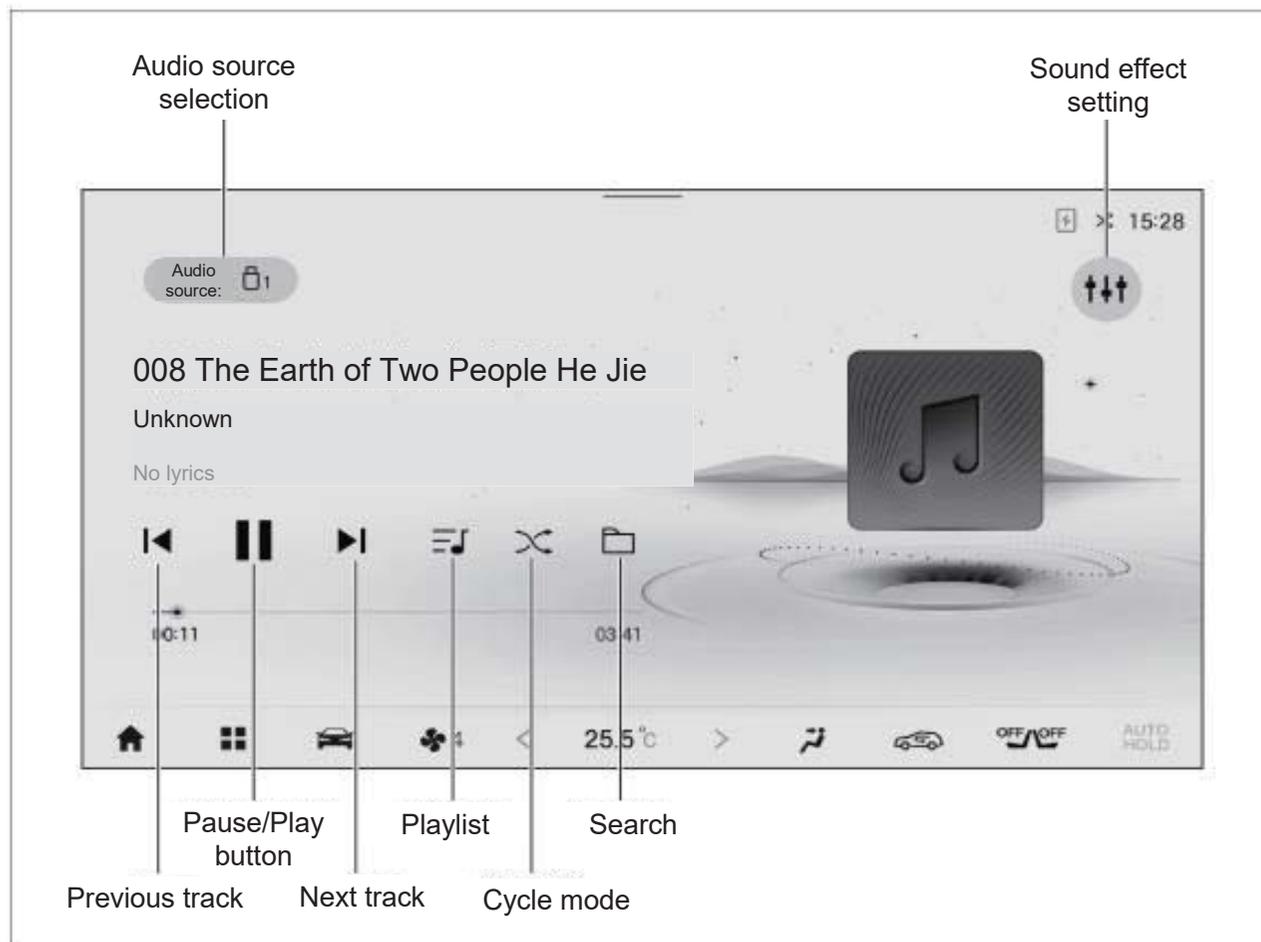
## 4.6.2 Radio



Enter the radio playing interface in the following ways:

- Enter the radio interface by clicking "Radio" card on the home page.
- Press the sound source switching button on the right side of the steering wheel repeatedly to switch to the radio playback interface.
- Click "Radio" soft key through the application menu interface to enter the radio interface.

### 4.6.3 Music



Enter the music playing interface in the following ways:

- Enter the music interface through the smart card area in the main interface of the A/V system.
- Press the sound source switching button on the right side of the steering wheel repeatedly to switch to the music interface.
- Enter the music interface by clicking the "Music" soft key in the application menu interface.

#### NOTE

- The A/V system only supports USB devices of FAT16/32, exFAT and NTFS formats, and supports lossless music.

#### 4.6.4 Bluetooth function

##### Enter 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  icon in the status bar in the upper right corner of the A/V system interface to enter Bluetooth mode.
- Press the  button on the right side of steering wheel to enter Bluetooth mode.

##### Bluetooth display mode

If there is no Bluetooth device connected, use the following ways to enter the Bluetooth connection interface.

- Click on "Bluetooth Switch"  soft key. After the Bluetooth function is turned on, AVNT automatically searches for surrounding Bluetooth devices. The Bluetooth connection interface has two display modes: "Radar" and "List".

##### Radar display mode

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

##### List display mode

- Bluetooth device: Display the surrounding Bluetooth devices that can be connected and display them in a list style.
- Switch to radar display mode: Click  soft key to switch to the radar display mode to show the number of connectable Bluetooth devices in the surrounding area.

##### Introduction to Bluetooth function

After the Bluetooth is connected, the Bluetooth icon in the status bar is highlighted, and the name of the connected Bluetooth device is displayed on the Bluetooth connection interface:

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

#### 4. Operation of systems and equipment

##### Bluetooth connection failure

Possible cause	Solution
The device Bluetooth is set incorrectly	Set the device Bluetooth so as to be "Visible to Everyone" or can be searched for or open for detection
The current device is not compatible with the in-car Bluetooth system	Confirm the compatibility of the device with the Bluetooth version, upgrade the mobile phone system to the latest version and try again
The mobile phone Bluetooth was connected to other devices	It is recommended to delete the Bluetooth devices that was connected

##### 4.7 Microwave window



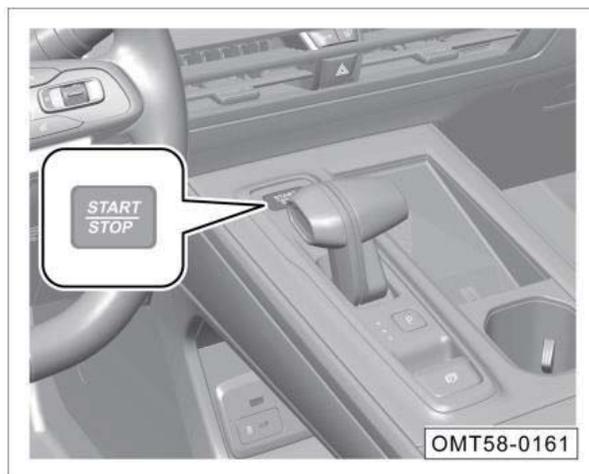
- The microwave window is set on the right of the front windshield corresponding to the interior rearview mirror.

##### **i** NOTE

The microwave window is used for pasting electronic identification.

## 5.1 Starting and driving

### 5.1.1 START/STOP button

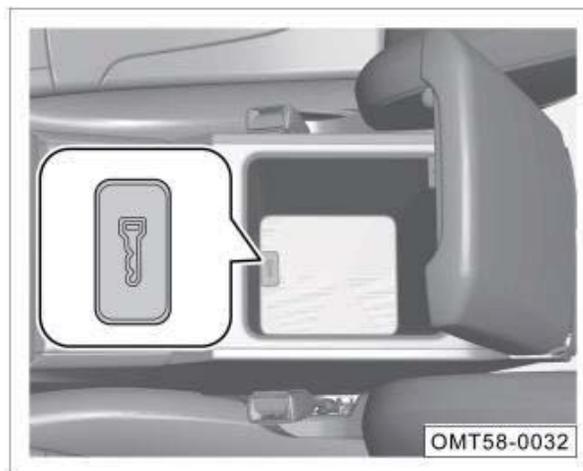


The START/STOP button works only when the remote control key is detected in the vehicle.

When the GSM is in "P" position and the brake pedal is depressed, press the START/STOP button to start the engine.

When the GSM is in the "P" position and the brake pedal is not depressed, press the START/STOP button to switch in the order of "OFF→ACC→ON→OFF".

### Limphone mode



If the instrument cluster display prompts "No key detected" due to low battery of the smart key, place the smart key horizontally at the key mark at the bottom of the front central armrest box and then press the START/STOP button to switch to "ACC" or "ON" mode, or depress the brake pedal and press the START/STOP button to start the engine.

This is an emergency start method. Please replace the smart key battery as soon as possible.

### 5.1.2 Engine start

1. Enter the vehicle with the intelligent remote key.
2. Make sure that the GSM is in "P" or "N" position.
3. Depress the brake pedal.
4. Press the ENGINE START/STOP button to start the engine.

#### **i** NOTE

In case of a cold start, run the engine at idle speed to allow it to warm up before driving. At the same time, it is normal that some hydraulic components have metal knocking sound due to incomplete establishment of engine oil pressure. As the oil pressure is gradually established, the knocking sound will disappear.

### CAUTION

- The engine start time shall not exceed 15 s. If the engine fails to start successfully, wait for about 30 s before trying to start it again.
- Do not depress the accelerator pedal hard to make the engine run at high speed or overload after starting. Otherwise, the engine is prone to damage.
- If the battery has too low power to start the engine, try an emergency start by connecting jumper cable. => See page 201
- It is forbidden to start the engine by pushing or towing.

### Warning

- **Do not start the engine for a long time in a poorly ventilated place or a closed room. The engine exhaust contains harmful gases, which can make people comatose and even suffocate.**
- **Never let the engine idle when unattended.**
- **Never install a starting aid to start the engine. Otherwise, the engine may run at high speed or explode.**

### 5.1.3 Engine shutdown

1. Stop the vehicle completely and apply the parking brake.
2. Switch the gear to "P" position.
3. Release the brake pedal and press the START/STOP button to shut down the engine.

### NOTE

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

### CAUTION

- When the vehicle is stopped, the parking brake shall be applied, the vehicle shall be shut down, and all lamps and other electric consumers shall be turned off.
- When leaving the vehicle, be sure to take valuables and smart key with you, and confirm that the windows, doors and liftgate are locked.
- Before locking the vehicle, make sure that there are no people or other living things in the vehicle.

## Emergency shutdown

When the vehicle is running, press and hold the START/STOP button or press the START/STOP button three times in a row quickly to switch the START/STOP button from the "ON" position to the "ACC" position, and then shut down the engine to realize emergency shutdown.

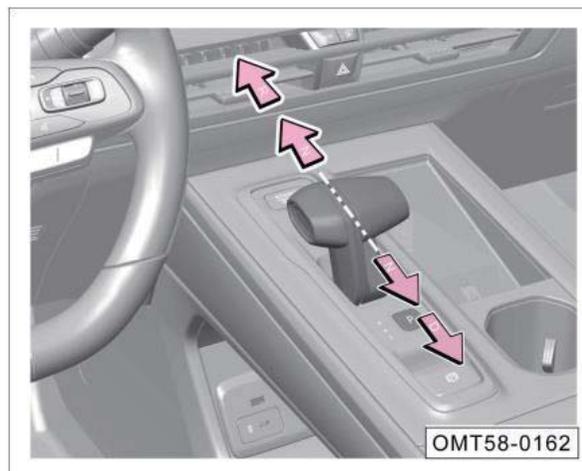
The engine can only be restarted in a few seconds after emergency shutdown. Restart the engine as follows:

- If the vehicle is still in the running status, make sure that the gear is in the "N" position and press the START/STOP button.
- If the vehicle is in a static status, start the engine. => [See page 99](#)

### Warning

**Emergency shutdown is forbidden during normal driving, which can easily lead to car damage, safety protection, power steering failure and traffic accidents.**

## 5.1.4 Instruction for the gear



The vehicle has the following gears: P, R, N and D. When the START/STOP button is in the "ON" position, the corresponding gear information will be displayed on the ICM.

### Warning

**The "R" or "P" position can be engaged only when the car is completely stationary, otherwise the transmission will be damaged.**

## P: Parking position



- After the vehicle is completely stopped, press this button to park.
- When stopping for a long time, depress the brake pedal, switch the GSM to the "N" position, pull up the EPB button, release the brake pedal, and then press the "P" button.

### NOTE

- When the engine is not started, the operation of the gearshift lever will not enter the required forward gear "D" and reverse gear "R".
- When the shift system has a fault and the gear fails to be shifted out of "P" position, please contact the GAC Motor authorized shop for inspection.

### **R: Reverse position**

- Shift into this gear when 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 the vehicle into "R" position.

### **N: Neutral position**

- When the gear is in the "P" position, depress the brake pedal and gently push the gearshift lever forward to enter the "N" position.
- To switch the gear from "N" to "D" or "R", depress the brake pedal.

### Warning

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

### **D: Drive position**

- Shift into this gear for normal driving.
- Depress the brake pedal and pull the gearshift lever backward to switch from other gears to "D" position.

### **Driving mode**

The driving mode can be switched and set through the "Shadow driver" APP of the A/V system:

- ECO (energy saving) mode: smooth power response and economical fuel consumption.
- COMFORT mode: moderate power response, comfortable driving experience, and balanced fuel consumption.
- SPORT mode: rapid power response, more driving pleasure, and maximum acceleration.
- Custom mode: powertrain characteristics, steering wheel steering force, Shadow driver and other functions can be customized.

**i NOTE**

- To memorize the current driving mode, you need to activate the function of memorizing the current driving mode through the A/V system setting interface, and the current driving mode will be activated by default the next time you start the vehicle.

**5.2 Brake system****5.2.1 Service brake**

Under certain driving and weather conditions, squeaks, screams, or other noises may be heard at the brake when the brake pedal is depressed or lightly stepped on for the first time, or braking noise accidentally heard during light or moderate intensity braking, especially for new cars (their brakes have not undergone running-in). This is normal and does not mean that the brake system is malfunctioning or brake safety and performance is impacted.

** CAUTION**

- If there is a sharp metal friction sound, it means that the brake lining is close to the wear 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 as soon as possible.

**i NOTE**

- Under normal driving conditions, dust accumulation caused by brake wear will not affect the braking performance.
- If the vehicle is parked for too long, resulting in rusting of the brake lining and brake disc, the brake may have noise during the first use, which is normal.

### 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.

When the brake booster fails to work normally, the brake pedal must be pressed harder to compensate for the power-assisted effect of the brake booster.

#### Warning

- **Do not shut down the engine to allow the vehicle to coast; otherwise, it is very likely to cause an accident! Since the brake booster does not work at this time, the braking distance will be greatly increased.**
- **In case of brake booster fault, please contact the GAC Motor authorized shop in time.**

### Braking effect and braking distance

The braking effect and braking distance are mainly affected by the driving environment, road conditions and driving style.

Worn brake linings cannot provide effective braking. The wear rate of the brake lining mainly depends on the service conditions and driving style of the vehicle. If the vehicle often runs in urban areas or for short distances, it is recommended to increase the maintenance and inspection frequency of the brake lining.

After wading, rain or vehicle washing, the brake lining may be damp or frozen (in winter), resulting in a decrease in braking effect. In this case, be sure to press the brake pedal lightly to make the brake generate heat by friction, evaporating the moisture and restoring the braking effect.

#### Warning

**New tires and new brake lining without running-in do not have the best adhesion and friction characteristics.**

- **New tires do not have the best adhesion, so you must drive carefully to prevent accidents!**
- **The friction characteristics of the new brake lining have not reached the best status, and the braking effect is slightly reduced, so running-in is required. The braking effect can be compensated by increasing the force of depressing the brake pedal.**
- **Keep a safe distance from other vehicles during driving, and try to avoid emergency braking.**

 **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.**
- **It is forbidden to rest your foot on the brake pedal when driving the vehicle, otherwise it will cause abnormal increase in brake temperature, excessive wear of brake lining and increase in braking distance.**
- **When the vehicle is running downhill, the brake load increases, and the brake is easy to overheat, resulting in longer braking distance.**

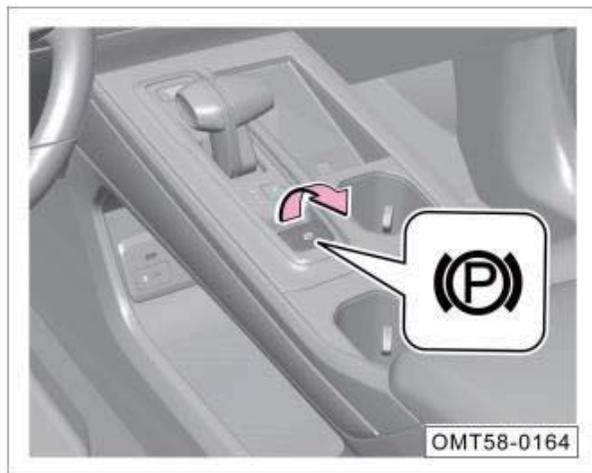
 **Warning**

- **The brake fluid must be changed regularly. If the brake fluid stays in the brake system for too long, it may cause air resistance in the brake system pipeline, seriously affect the braking effect and reduce the driving safety, and even cause the brake system to fail, which is very likely to cause accidents!**
- **Modification of non-standard front spoiler will hinder the cooling airflow to the brake, resulting in overheating of the brake and affecting the braking effect.**

**5.2.2 Electric park brake (EPB)**

The driver can apply or release the parking brake by operating the EPB button. On slopes, HSA can be used. If the accelerator pedal is depressed when the car is parked, the EPB will be automatically released to provide driving assistance for the driver.

### Apply EPB



- When the vehicle is stationary, if you lift the EPB button in the direction of the arrow or press the P button, the button indicator lamp and the indicator lamp (P) on the ICM will come on to indicate that EPB is applied.
- When the gear is switched to "P" position, the EPB will be applied automatically.

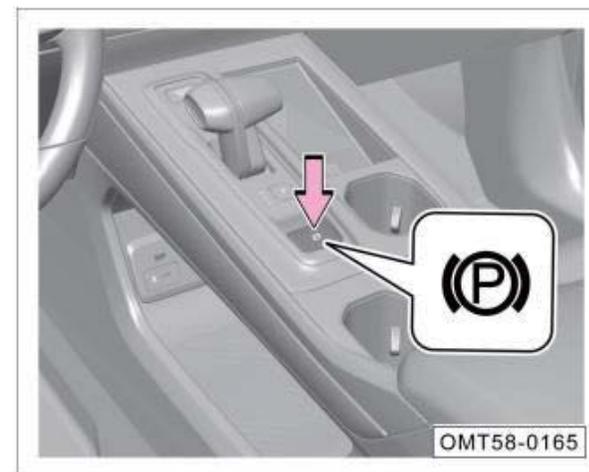
### i NOTE

- The EPB must be applied when stopping.
- After the vehicle is parked stably, the EPB shall be applied first.
- When EPB is applied, operating noise can be heard, which is normal.
- If the vehicle continues to roll down on a slope after the EPB force is automatically increased, please depress the brake pedal to apply brakes, drive to a flat road and stop. Contact the GAC Motor authorized shop for inspection in time.
- EPB will choose different braking force strategies on different slopes, and may perform another braking according to the vehicle status automatically. At this time, it is normal if there is certain operating noise.

### 👁 CAUTION

Before leaving the vehicle, especially when parking on a slope, engage the P gear, and apply the EPB to ensure that the vehicle will not move.

### Release EPB



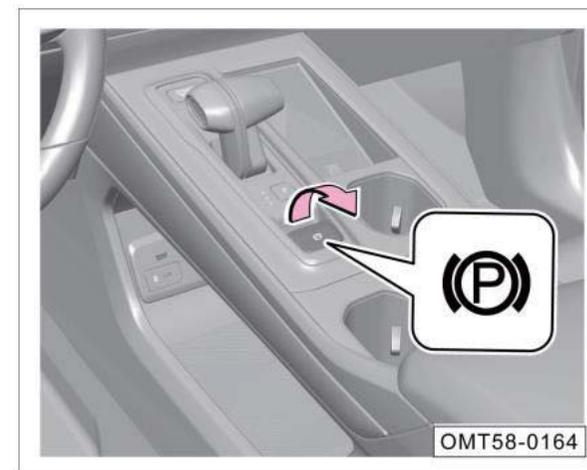
- After the vehicle start, close the doors, fasten the seat belt, depress the brake pedal, and press the EPB button. The button indicator lamp goes out, and the (P) indicator lamp on the ICM goes out, indicating that the EPB has been released.

- After the vehicle start, close the doors, fasten the seat belt, switch the gear to D or R, and depress the accelerator pedal. The EPB is released automatically, and the indicator lamp (P) on the ICM goes out, indicating that the EPB has been released.
- After the vehicle start, close the doors, fasten the seat belt, and switch the gear from P gear to non-P gear. The EPB is released automatically, and the indicator lamp (P) on the ICM goes out, indicating that the EPB has been released.

### **i** NOTE

- If the EPB button is pressed without depressing the brake pedal, the EPB will not be released, and the ICM will display an alarm message accompanied by a beep alarm.
- When EPB is released, operating noise can be heard, which is normal.
- When the battery SOC of the vehicle is low, the system cannot release the EPB. If conditions permit, the jumper cable can be used for emergency start, and then the parking brake can be released. Please contact the GAC Motor authorized shop for inspection.
- If the EPB has not been used for a long time, the system will automatically test it, and the operating noise can be heard.

### Apply dynamic emergency brake



- If the service brake fails while the vehicle is running, try to continuously pull up the EPB button, release the EPB button or depress the accelerator pedal, and the emergency braking will exit.

**i NOTE**

- When the vehicle is running, if you pull up the EPB button, the instrument cluster display will show an alarm message, with a beep alarm.
- During the deceleration of the vehicle, if you release the EPB button or depress the accelerator pedal, the EPB will be released. If you pull up the EPB button continuously until the vehicle stops, the EPB brake will remain braking status.

**👁 CAUTION**

Do not use dynamic emergency braking when it is not necessary. It is easy to cause traffic accidents, leading to a longer braking distance than depressing the brake pedal, and shortening the service life of the EPB system.

**👁 CAUTION**

If the following phenomena occur, please operate the EPB again, and if the fault is still not eliminated, please contact GAC Motor authorized shop for inspection.

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

**Activate/deactivate AUTO HOLD**

- When the engine is started, the driver's door is closed and the driver's seat belt is fastened, if you click the <sup>AUTO</sup>HOLD soft key in the bottom toolbar of A/V system, the indicator lamp will come on, and the AUTO HOLD will be activated. If you click the soft key again, the indicator lamp will go out, and the AUTO HOLD will be deactivated.

**Use AUTO HOLD**

When the AUTO HOLD is activated, after the driver presses the brake pedal to stop the vehicle, the (P) (green) indicator lamp on the ICM will come on, indicating that the AUTO HOLD is activated. At this time, if you release the brake pedal, the vehicle will remain stationary, and if you depress the accelerator pedal, the vehicle will resume the driving status.

**i NOTE**

This switch has a memory function. When the vehicle is started, the driver's door is closed and the driver's seat belt is fastened, the switch status will be the same as the status when the vehicle is powered off last time.

**👁 CAUTION**

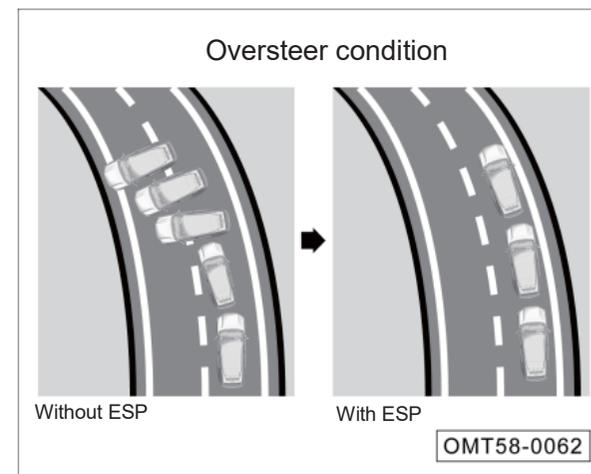
- When the AUTO HOLD is in working status, if you open the driver's door or unfasten the driver's seat belt, the AUTO HOLD will exit.
- When the AUTO HOLD is in working status, if you depress the brake pedal and manually release the EPB, the AUTO HOLD will exit.
- The AUTO HOLD must be deactivated when the vehicle enters the vehicle washing device and other vehicle transport mechanisms.

**5.3 Electronic service brake system****5.3.1 Electronic stability program (ESP)**

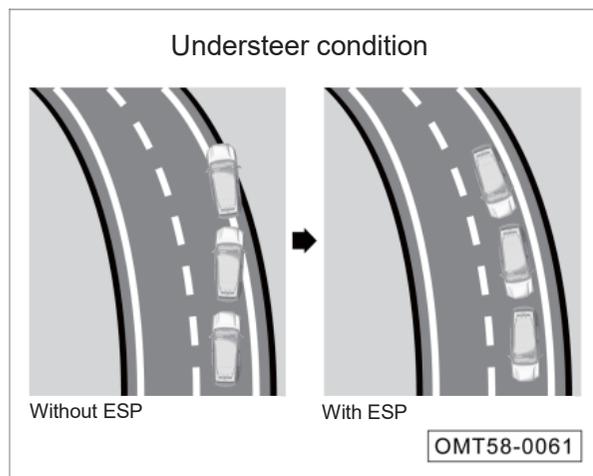
ESP can effectively reduce the risk of sideslip.

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 car deviates from the normal driving route (such as sideslip), ESP will correct it by applying brake force to the corresponding wheels.

ESP restores the vehicle to a stable driving status through the torsional force generated by the brake.



- If the vehicle tends to oversteer (i.e. drift), the system will mainly brake the front wheel on the outside of the curve.



- If the vehicle tends to understeer (i.e. large turning radius), the system will mainly brake the rear wheel on the inside of the curve.
- Vehicles without ESP may slip and deviate from the normal driving route during driving. Vehicles with ESP can correct the braking force according to the amount of sideslip to prevent deviation from the route.

### On/Off

ESP is on by default when the car is running. Enter the A/V system and click the driving control panel button  on the bottom toolbar to enter the driving control panel, and click the "ESP" soft key to turn off the ESP. At this time, the  indicator lamp comes on the ICM and an alarm message is displayed.

The ESP works only when the vehicle is running. For driving safety, the ESP should be turned on. The ESP function can be disabled in the following special cases:

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

 CAUTION

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

 Warning

- **Be sure to adjust the vehicle speed according to the climate, road and traffic conditions. Do not take risks by using the extra safety functions provided by the system, and beware of accidents.**
- **ESP cannot exceed the physical limit of road adhesion, and special care must be taken when driving on wet and slippery roads or towing a vehicle.**
- **The driver must adjust the driving style at any time according to the road and traffic conditions.**
- **ESP cannot reduce accidents that may be caused by improper driving styles such as too high vehicle speed or too close to the vehicle in front.**

### Traction Control System (TCS)

The TCS is used to automatically control the driving force during vehicle acceleration, so as to keep the slippage of tires within a reasonable range and maintain the driving stability of the vehicle.

### 5.3.2 Anti-lock braking system (ABS)

ABS is an active safety device. Its function is to automatically adjust the wheel braking force during braking to prevent the wheel from locking, so as to obtain the best braking performance and 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 that prevents the wheel from locking and ordinary brake system. The anti-lock electronic control system consists of the sensor, the ECU and the actuator.

#### ABS self-diagnosis

- The ABS ECU has self-diagnosis and failure protection functions. When the START/STOP button is set to the "ON" position, the system will perform self-test. If the system does not operate normally, the ABS indicator lamp  will stay on for a long time. At this time, the ABS shall be stopped and the normal braking shall be restored. It is recommended that you go to 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 the climate, road and traffic conditions. Do not take risks by using the extra safety functions provided by the system, and beware of accidents.**

#### Electronic brake force distribution (EBD)

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

### Hydraulic brake assist (HBA)

HBA can help the driver to brake in an emergency. It determines whether it is necessary to carry out full braking 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 system will automatically increase the braking force to the threshold at which the ABS activates. If the driver releases the brake pedal, the HBA will reduce the braking force to the specified value.

#### Warning

**HBA is only an assist system for improving the driving safety, but cannot completely avoid accidents. Therefore, please adjust the driving vehicle speed and distance according to the road conditions and traffic regulations.**

### 5.3.3 Hill Hold Control (HHC)

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.

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.

Operating conditions

- The gear is in a non-P status.
- The accelerator pedal is not depressed.
- The vehicle is in a stationary status.
- The EPB button is not pulled up.
- On the premise of meeting the above basic conditions, if the driver depresses the brake pedal with the vehicle stopped, the HHC is activated.

### 5.3.4 Hill descent control (HDC)

HDC is a subsystem of ESP. During the downhill driving, if the driver does not depress the brake pedal, HDC will actively apply braking force through ESP to decelerate the vehicle.

On/Off

- With START/STOP button in the "ON" position, enter the A/V system, click the driving control panel button  on the bottom toolbar to enter the driving control panel, and click the "HDC" soft key to activate the HDC. At this time, the  indicator lamp stays on or flashes, and the instrument information display shows the text prompt "HDC is working". If the HDC is faulty, the buzzer will sound, and the instrument information display will show the test alarm "Please check HDC".
- Press the button again to deactivate the HDC, and then the  indicator lamp goes out.

After the HDC is activated, the vehicle will run at a minimum speed of 8 km/h during downhill driving and maintain this speed.

In addition, the driver can adjust the vehicle speed by depressing the accelerator pedal or brake pedal. If the vehicle speed is (8~35) km/h when the driver releases the pedal, the HDC will be activated again and the vehicle will continue to run downhill at the current speed.

- The HDC is automatically deactivated when the vehicle speed exceeds 60 km/h.
- 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 will be deactivated, the instrument cluster display will display a graphic prompt message, and there will be an audible alarm for about 5 s. In this case, HDC will not work normally. The driver must not use the system to go down a steep slope forcibly, but shall depress the brake pedal to slow down, and 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 is reached, the HDC enters the thermal protection mode (i.e., the HDC function is active but inoperative), and the vehicle shows signs of acceleration. When the temperature of the brake system drops to an effective operating temperature, the HDC resumes its function.

### **5.3.5 Hydraulic boost compensation (HBC)**

When the vacuum booster of the car fails, HBC can compensate the temporary insufficient vacuum caused by vacuum failure and increase the brake pressure. At the same time, the alarm message will be displayed on the ICM. Please contact the GAC Motor authorized shop for inspection as soon as possible.

## 5. Driving guide

### 5.4 Driver assistance systems

#### 5.4.1 Adaptive cruise control (ACC)

The adaptive cruise control system, or ACC for short, can automatically adjust the following distance to the vehicle in front in cruise control mode.

Based on the MMR installed on the front of the vehicle and the IFC on the front windshield, ACC detects the relative distance and speed between the vehicle in front and your vehicle on the same path:

- When there is a vehicle ahead, if the vehicle in front stops, ACC will control the vehicle to stop automatically following the vehicle in front; If the vehicle in front starts, the ACC will automatically start the vehicle again in a short time. After stopping for a specific time during following, press the  button or operate the accelerator pedal to start following the vehicle ahead.
- When a vehicle is in front and its speed is lower than the target speed set by the driver, ACC controls the car to maintain a safe distance from the vehicle in front.
- When no vehicle is in front, ACC controls the car to travel at the target speed set by the driver.

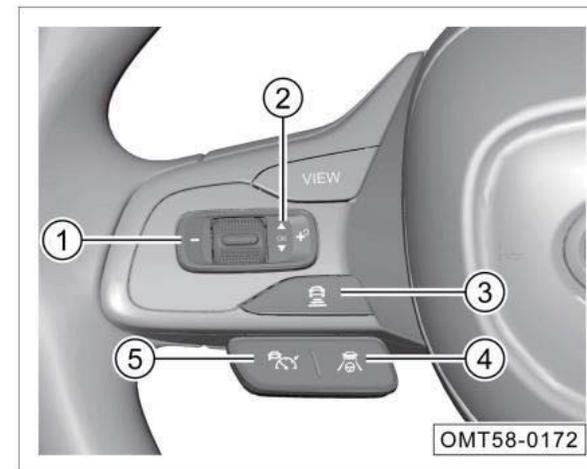
#### NOTE

Precautions for use of radar and IFC sensor. =>  
[See page 142](#)

#### Warning

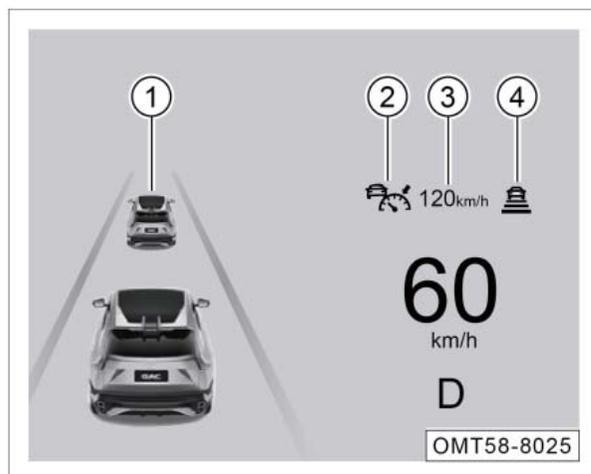
- **ACC is not a safety system, obstacle detector, collision warning device or anti-collision system, but a comfort system. The driver must always maintain control of the vehicle and take full responsibility for the vehicle.**
- **The ACC must be used with prudent according to the visibility, weather conditions, road and traffic conditions at that time. The driver must always keep control of the vehicle and take full responsibility for the vehicle speed and the distance from other vehicles.**
- **The ACC cannot replace the driver's attention and judgment decision. The driver shall always ensure that the vehicle travels safely at an appropriate speed and keeps a proper distance from other vehicles.**

#### Operational button



- ①  : Decelerate button
- ②  : Resume/Synchronize/Accelerate button
- ③  : Adjust time headway
- ④  : Turn on/off ICA/Switch to ICA
- ⑤  : Turn on/off ACC/Switch to ACC

### Interface description



① indicates the detected vehicle in front.

② ACC indicator lamp:

- If the ACC indicator lamp comes on in blue, it indicates that the ACC is working and there is a target vehicle ahead. If the ACC indicator lamp comes on in gray, it indicates that the ACC is in the ready status and there is a target vehicle ahead.
- If the ACC indicator lamp comes on in blue, it indicates that the ACC is working and there is no target vehicle ahead. If the ACC indicator lamp comes on in gray, it indicates that the ACC is in the ready status and there is no target vehicle ahead.

- If the indicator lamp comes on in yellow, it indicates that ACC is faulty. In that case, go to the GAC Motor authorized shop for inspection in time.

③ Cruising speed set last time.

④ Set cruising time headway from vehicle ahead.

When the braking capacity of ACC is not enough to maintain a proper distance between the car and the vehicle in front, ACC will send a "driver takeover request", and the instrument cluster will display an alarm message and emit a sound simultaneously. In this case, the driver shall depress the brake pedal to reduce the car speed according to the system requirements.

### Start ACC

- ACC will automatically enter the ready status after the START/STOP button is turned from "OFF" to "ON" position each time. If you press the button, the corresponding blue indicator lamp on the ICM will light up, and the vehicle will enter the ACC control status.

#### NOTE

- The minimum cruising speed that can be set is 15 km/h.
- When the gearshift lever is not in D position, ACC cannot be activated.

 Warning

- **When the vehicle is in the "engine running" status and the gearshift lever is in the "D" position, if you press the  button on the steering wheel, the stationary vehicle will automatically enter the driving status after the conditions are met, and it is necessary to operate it carefully.**
- **After the vehicle enters the ACC status from the stationary status, the vehicle speed may increase suddenly. In this case, please ensure the safety around the vehicle to avoid unnecessary accidents.**

### Deactivating ACC

ACC can be exited as follows:

- Open the driver's door.
- Unfasten the driver's seat belt.
- depressing the brake pedal.
- Shift into a gear other than D.
- Short press the  button (the corresponding indicator lamp on the ICM turns gray, ACC is deactivated, but the set speed is retained).
- Press the EPB button.
- Turn off the ESP.
- when the HDC system is turned on.
- Activate the AUTO HOLD.

ACC can be resumed by pressing the  button in the following exit modes:

- depressing the brake pedal.
- Shift into a gear other than D.
- Short press the  button
- Operate the EPB button (release the EPB).
- Turn off the ESP (ESP needs to be turned on again).
- Activate the AUTO HOLD (AUTO HOLD needs to be deactivated first).

### Reactivating ACC

When the corresponding indicator lamp of the ICM is gray, the ACC can be reset by the following operations:

- Press the  button, then the corresponding indicator lamp on the ICM will come on in blue, and the vehicle speed will be restored to the value saved last for the cruise control and enter the cruise control status.
- If the cruising speed has not been set, the system 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 as 15 km/h).

### Increase of cruising speed

To increase the car speed, please perform the following operations:

- Depress the accelerator pedal to reach the target speed and press the  button (keep the accelerator pedal depressed), to achieve cruise control at a higher set speed.
- Press the  button, and then the vehicle speed will increase by 5 km/h each time.
- Press and hold the  button, and then the cruising speed will continue to increase by 5 km/h until the button is released.

#### NOTE

- The maximum cruising speed that can be set is 130 km/h.
- When the accelerator pedal is depressed for acceleration, the vehicle will temporarily exit the ACC and accelerate according to the driver's intention. After the accelerator pedal is released, the vehicle will resume ACC and the set cruising speed.
- When the accelerator pedal is depressed to make the vehicle speed exceed 135 km/h, the vehicle will automatically exit the ACC. ACC can be reactivated only after the vehicle is decelerated to 130 km/h and the  button or  button is pressed again.

### Reduction of cruising speed

To reduce the car speed, please perform the following operations:

- Press the  button, and then the vehicle speed will decrease by 5 km/h each time.
- Press and hold the  button, and then the cruising speed will continue to decrease by 5 km/h until button is released or until the cruising speed reaches 15 km/h.
- During cruise control, lightly depress the brake pedal (ACC exits), keep braking to the target speed, and press the  button to resume the cruise control at the current vehicle speed.
- During cruising control, press the  button on the steering wheel (ACC exits), coast or lightly depress the brake pedal to the target speed, and then press the  button to resume the cruise control at the target speed.

### Controlling ACC headway

After the START/STOP button is set to "ON" position, when the system is activated, the default time headway setting is in the fourth range (the vehicle following distance in the fourth range is the farthest).

Press the  button to switch the time headway range according to the distance to the vehicle in front. Press it once to switch one range. The ranges are switched 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 gear.

### Activating ACC after stop

In the process of following a vehicle in front, the car will also be stopped if the vehicle in front is stopped. During a certain period after such stop, ACC will keep your vehicle stationary by active pressurization of ESP. After a period of time, ACC will keep the vehicle stationary by activating EPB. When the vehicle in front leaves, ACC of the car can be activated in three situations:

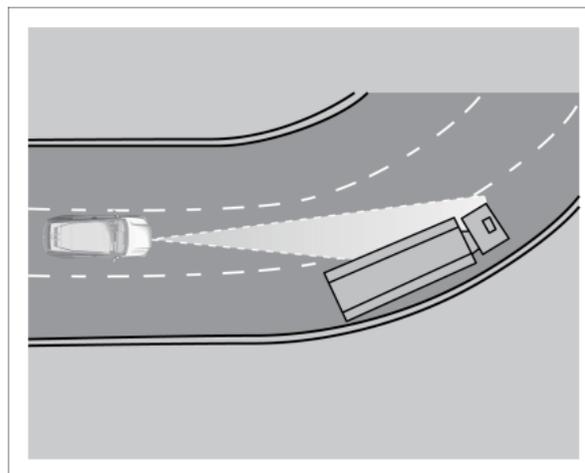
1. If the ACC indicator lamp  lights up in blue, ACC can be resumed actively and re-drive the vehicle after the vehicle ahead leaves.
2. If the ACC indicator lamp  lights up in gray and the EPB is not activated and the AUTO HOLD is not activated, the ICM will display "Cruise control waiting". The driver can resume ACC and re-drive the vehicle by stepping on the accelerator pedal or pressing the  button.
3. If the ACC indicator lamp  lights up in gray and the EPB is activated, the driver needs to release the EPB first, and then press the  button to resume ACC and re-drive the vehicle.

### System limitations

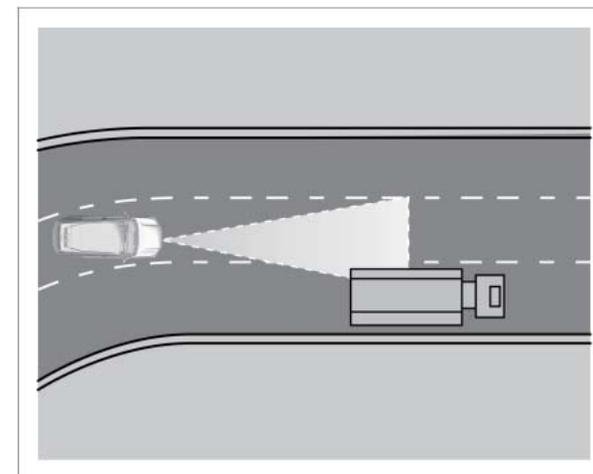
ACC is limited by physical laws and has certain system limitations. In some driving environments, the driver may feel that the ACC response is lagging or fails to control the vehicle as scheduled. Therefore, the driver must be ready to control the vehicle by himself at any time.

The following conditions affect functions of the radar system sensor, so the driver must be particularly alert under these conditions:

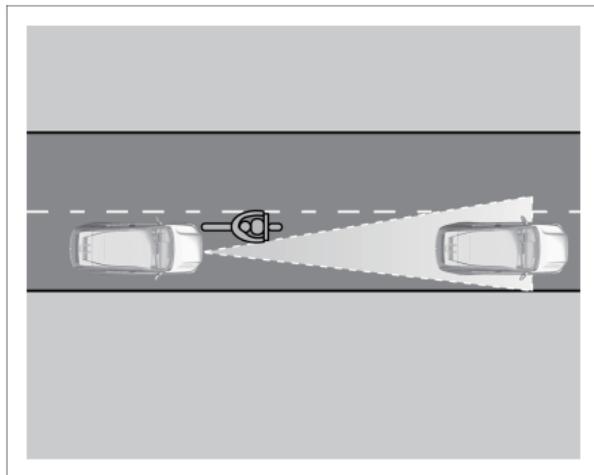
1. Decelerating to stop. If the lead vehicle stops by emergency braking, ACC will also make the vehicle slow down or issue the takeover request. The driver shall actively intervene in braking according to the takeover request to stop the vehicle completely.



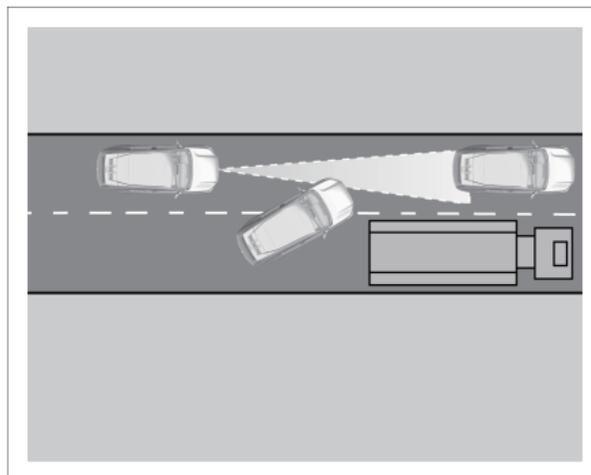
2. Driving through a curve. The radar sensor may not be able to capture the lead vehicle in the adjacent lane when driving through a curve. In this case, ACC may apply brake to the vehicle, reduce the vehicle speed, or have no response to the lead vehicle. In this case, the driver should depress the brake pedal or manually cancel ACC to deactivate the ACC system.



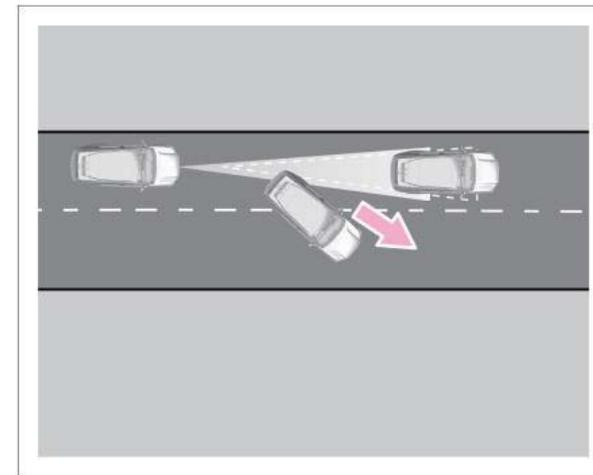
3. Driving out of a curve. When driving out of a long curve, the radar sensor may brake the vehicle in response to the vehicle in the adjacent lane because the system will calculate the lane in advance. This braking process can be interrupted by depressing the accelerator pedal.



4. Narrow vehicles and Z-shaped traffic in front. The narrow vehicles and Z-shaped traffic in front can be detected by the sensor only when they enter the detection range of the radar sensor. That is to say, the system cannot identify vehicles out of the detection range of the sensor. It is hard for ACC to identify narrow vehicles such as motorcycles. At the same time, the ACC has the risk of not accurately identifying the distance from the vehicle in front which is modified or travels in a non-standardized way. Therefore, it is not recommended that you take such vehicle as the target vehicle ahead.

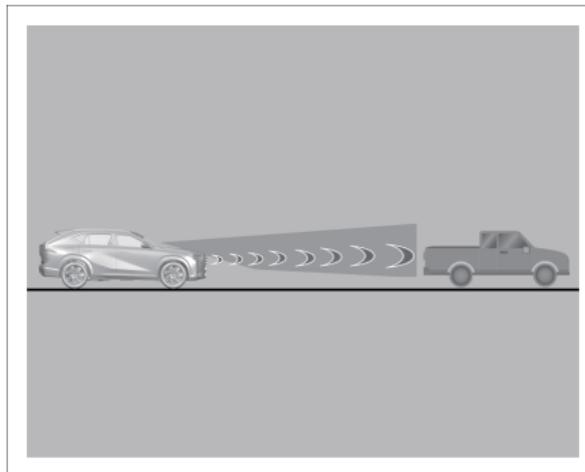


5. When other vehicles change the lane. When a vehicle in the adjacent lane merges into the ego lane, if the vehicle does not enter the front detection range, the radar sensor may not detect the vehicle, resulting in a delayed ACC response.



6. The target vehicle in front suddenly cuts out, and a stationary vehicle appears at a close distance. The radar sensor and brake actuator react with lag, and the braking response is not timely.
7. Influencing factors that may deteriorate the sensor function.
- Heavy rain, water mist, ice and snow or sludge may deteriorate the function of the radar sensor, causing the ACC to be turned off temporarily. At the same time, the ICM display shows the following text information: "ACC working conditions are not met" or "IFC is blocked". At this time, the adaptive cruise control (ACC) and forward collision mitigation (FCM) cannot function.

- 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 ICM: "ACC working conditions are not met" or "IFC is blocked". At this time, the adaptive cruise control (ACC) and forward collision mitigation (FCM) cannot function.
- 8. Brake overheating. If the brake is overheated due to emergency braking or when the vehicle is moving down a steep slope, ACC will automatically shut down temporarily. At the same time, the ICM display will show the following text message: "ACC working conditions are not met". After that, ACC can no longer be activated. ACC can only be reactivated when the brake temperature drops to a reasonable degree.



- 9. ACC should not be used in urban traffic congestion 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 control.

#### Warning

- **The ACC function cannot address all driving scenarios and traffic, weather and road conditions.**
- **The ACC function is only a supplement to the driving assistance function. Even when used, the function cannot replace your attention and judgment. It is your responsibility to maintain a safe distance and speed, and you must intervene if the adaptive cruise control (ACC) fails to maintain a proper speed or distance from the vehicle ahead.**
- **The hands-on reminder alarm of ACC can give warning only for the vehicle that has been detected by the radar and IFC sensor, so it may not give and may incur delay in giving an alarm. Never wait for an alarm, but apply the brake as needed.**

 Warning

- For the sake of safety, ACC is not allowed to be used in urban driving, traffic congestion, many bends and poor road conditions (such as ice, fog, gravel, heavy rain and water skiing), which is in danger of accidents.
- ACC is not a collision avoidance system. If the car is getting closer and closer to the vehicle in front and the car speed is higher than that of the vehicle in front, the braking effect of ACC cannot ensure safety, so the driver must depress the brake pedal to reduce the car speed when the car is possible to collide with the vehicle in front.
- Do not use ACC when driving on roadless areas or earth roads. ACC can only be used on flat paved roads such as asphalt pavements and cement roads.

 Warning

ACC does not respond to or only makes a limited response to the followings:

- Large vehicle speed difference between your vehicle and the vehicle ahead.
- Driving on different lanes, changing lanes or driving on curves with smaller radius.
- Pedestrians, animals, bicycles, tricycles, stationary vehicles, etc. or unexpected obstacle.
- Complex traffic conditions.
- Oncoming vehicle or cross-driving traffic.
- Low trailers, trucks or vehicles with irregular/nonstandard features.

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.

 NOTE

- Do not bump the radar sensor. If the sensor is misaligned due to bumping, the system performance will be deteriorated even after repair and correction, and the system may even be turned off.
- If the surface of the radar or IFC sensor is dirty or covered by heavy rain, ice, snow, mud, etc., ACC may not work, and the instrument cluster display will display a prompt reading "MRR is blocked" and "IFC is blocked". After the dirt on the sensor surface is removed, the function will return to normal.
- Do not spray paint or affix sticker or other decorations on the front bumper at will, otherwise the MRR performance may be degraded.
- ACC will not respond to people, animals and vehicles running laterally or towards the your vehicle in the same lane.

**i** NOTE

- When driving through intersections, speed bumps, steep roads, zebra crossings or at the entrance and exit of expressways, ramps or construction sections, it is necessary to deactivate the ACC and drive manually to avoid traffic accidents caused by the automatic acceleration of the vehicle to the set vehicle speed in these situations.
- The ACC system can make the vehicle drive out automatically after the vehicle stops for a short time or after the driver's confirmation (control button or accelerator pedal). During this period, the driver must ensure that there are no obstacles or other traffic participants such as pedestrians or two-wheelers in front of the vehicle.
- If ACC fails to function properly, do not continue to use it. It is recommended to go to GAC Motor authorized shop for inspection in time.

**i** NOTE

- ACC may not respond under certain circumstances. For example, when the 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 the vehicle, ACC may not respond.
- ACC can only achieve limited braking force and cannot achieve emergency braking.
- Do not put your foot on the accelerator pedal unintentionally; otherwise the ACC will no longer brake the vehicle. This is because if the driver depresses the accelerator pedal, the car speed and distance may be controlled excessively.
- When the vehicle is driving in heavy rain or snow, and it is difficult or impossible for the system to recognize the vehicle ahead, the ACC should be turned off.

**i** NOTE

- When ACC is on, the ACC status displayed on the ICM may be overwritten by other functions (for example, during a phone call).
- When the ACC automatically applies the brake to the vehicle after being activated, there will be a sound different from the manual braking, or the brake pedal will be automatically depressed, which is a normal phenomenon. This 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 START/STOP button is turned off.
- The accelerator pedal can be depressed at any time to increase the vehicle speed. After the accelerator pedal is depressed, ACC will readjust the car speed to the previously stored value.
- The radar and IFC will enter blind mode in a tunnel, and ACC may be temporarily turned off.

### Display of longitudinal distance from lead vehicle

ACC detects the relative distance between the lead vehicle and the vehicle on the same path according to the radar installed at the front of the vehicle and the IFC on the front windshield, and displays it on the instrument cluster display.

- When there is a lead vehicle, the relative distance from the lead vehicle can be displayed on the ICM after the longitudinal distance from lead vehicle is selected.
- When there is no vehicle ahead, the ICM cannot display the relative distance from the vehicle ahead.

### ON or OFF

With the START/STOP button in the "ON" position, the FCW and AEB are automatically turned on.

The function of display of longitudinal distance from lead vehicle may be manually turned on/off in the A/V system.

#### NOTE

The radar sensor and IFC have perception limitations and cannot identify vehicles outside the detection range of the sensor.

#### Warning

- **The longitudinal distance from lead vehicle must be used carefully according to the visibility, weather conditions, road and traffic conditions at that time. The driver must always keep control of the vehicle and take full responsibility for the vehicle speed and the distance from other vehicles.**
- **The driver cannot make a judgment or decision based on the displayed longitudinal distance from lead vehicle. The driver shall always ensure that the vehicle travels safely at an appropriate speed and keeps a proper distance from other vehicles.**

### 5.4.2 Integrated cruise assist (ICA)

Integrated cruise assist (ICA) is abbreviated to ICA. ICA can automatically adjust the distance to the vehicle in front during cruise and keep the vehicle in the middle of the lane, and the cruising speed can be set within 0~130 km/h.

ICA detects the relative distance and speed between the vehicle in the front path and your vehicle through the MMR installed in the front of the vehicle and the IFC on the front windshield, and detects the lane markings on the road through the IFC.

ICA can improve driving comfort and provide a more relaxing driving experience, such as during long-distance driving in smooth traffic on a highway.

#### NOTE

Precautions for use of radar and IFC sensor. =>  
[See page 142](#)

### Operation instruction

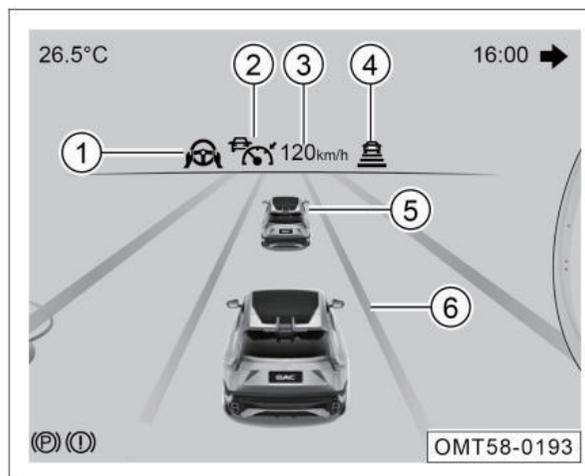
Press the left  button on the steering wheel to turn on the ICA.

After turning on ICA, turn on or activate the ICA according to the operation method of ACC. The cruise mode can be switched when ACC is deactivated, turned on or activated. => See [page 114](#)

ACC has a cruise mode memory function that keeps the cruise mode the same as that before last engine shutdown when the engine starts.

When the ICA system has a specific fault that does not affect ACC, the cruise control mode will automatically jump back to ACC. At this time, the driver cannot choose to enter the ICA mode, but ACC can still be used normally.

### Interface description



- ① Lane marking
- ② Detected vehicle ahead
- ③ Lateral control status indicator lamp:
  - When the lateral control is activated, the middle steering wheel icon  will be displayed in blue, and gray  when it is in standby.
  - The hands icon on the steering wheel icon is always on when the driver is holding the steering wheel.
  - When the system is activated and the driver's hands are detected to be off the steering wheel, the hands icon will flash.

- The system can also dynamically give a pop-up showing the text messages “Please turn steering wheel gently” and corresponding warning sound according to the actual situation of the driver's hands holding the steering wheel.

- ④ ACC indicator lamp
- ⑤ Cruising speed set last time
- ⑥ Set cruising distance from vehicle ahead

#### NOTE

When the ICM is in organic theme, 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.

## 5. Driving guide

### Lateral control

When the ICA is activated, the lateral control will be automatically activated when a valid lane marking is detected on both sides.

The lateral control will keep the vehicle in the center of the lane markings on both sides.

The lateral control is suppressed when:

- too high or missing curvature of lane marking.
- intense driving conditions.
- turn signal lamp turned on.
- hazard warning lamp turned on.
- turning the steering wheel by the driver.
- takeover prompt by the system when driver's both hands are taken off the steering wheel for a long time.
- ACC exiting. => [See page 116](#)

ICA can only use the limited capability of steering system, so it cannot cover all driving conditions. The driver must keep his hands on the steering wheel at all times and drive carefully.

When the ICA intervenes in the steering wheel for lateral assist control, the driver can still turn the steering wheel to control the vehicle. When feeling that the torque applied by the system is improper, the driver can control the car to travel according to his intention at any time.

### Hands-on reminder



When ICA detects that the driver's hands are off the steering wheel for a long time or detects that the vehicle reaches the control limit (curve) and there is a risk of crossing the lane, the ICM will display the above figure and the buzzer will sound.

The driver shall immediately hold the steering wheel when the takeover indication has been received. Don't panic or turn the steering wheel fiercely. After ICA recognizes that the driver is holding the steering wheel by detecting the torque manually applied to the steering wheel, the hands-on reminder disappears. ICA automatically reactivates lateral assist.

Note that the lateral assist of the ICA function will be suppressed after the steering wheel takeover prompt is issued and the driver does not take over in time.

When the driver's hands are lightly holding on the steering wheel, the system may misinterpret it 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.



The ICA system can only use the limited braking capacity of the service brake system. When the system requires the driver to intervene in braking, the ICM will display the above figure and the buzzer will sound.

When receiving the takeover indication, the driver shall immediately depress the brake pedal for proper braking.

After the brake pedal is depressed, ICA will be deactivated. If ICA reactivation is required after an emergency is eliminated, press the resuming or setting button of ACC. => [See page 114](#).

### Intelligent avoidance

When the ICA is activated, the intelligent avoidance system will automatically control the vehicle to move away from the risk when it recognizes 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 A/V system.

The system has the button state memory function, so that when the vehicle is restarted, the button will be in the state before last shutdown.

When the intelligent avoidance function is activated, the icon color of the 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

The capabilities of steering system and brake system that the ICA system can use are limited, so the ICA system cannot maintain an appropriate inter-vehicle distance in all road conditions, nor can it keep the vehicle in the lane in all road conditions.

The ICA may incorrectly detect lane markings or fail to detect lane markings, and may incorrectly detect the target vehicle or fail to detect the target vehicle ahead. Even if the function is enabled and activated, ICA may be affected, malfunction or not function under the following conditions:

- poor line of sight, such as snow, rain, fog or water spots.
- Dirty, damaged or foggy windshield, or obstruction in the IFC area.
- Overtemperature around the IFC due to direct sunlight
- Poor vision due to direct sunlight, oncoming car lights, and reflected light from accumulated water on the road, etc.
- Dramatic changes in lighting conditions, such as entering/exiting tunnels.

## 5. Driving guide

- 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.
- increase or decrease in the number of lanes, or complicated routing of lane markings.
- More than two lane markings on the left and right sides of the car.
- marks or objects similar to lane markings on roads.
- Isolation strips or other objects cast shadows on the lane marking.
- short-term change of marking, such as ramp or highway exit.
- driving on steep slopes or curved roads.
- close distance from the vehicle in front or lane markings blocked by the vehicle in front.
- severe shaking of the car.

- Longitudinal control of ICA based on ACC. For more limitation conditions, please refer to the relevant chapters of ACC => See [page 119](#).

The lateral assist control performance of ICA may be affected under the following conditions:

- car overload.
- Abnormal tire pressure.
- uneven road.
- strong crosswinds.
- modification of car control-related parts by the driver.
- replacement of car control-related parts with non-matching parts manufactured by the original factory.
- improper assembly of car control-related parts.

### NOTE

When the ICA is controlling the steering wheel for assistance, the driver can still turn the steering wheel to control the vehicle. When the driver feels an implausible torque applied to the steering wheel by the system, the driver may take over control of the car at any time to drive it at will.

### CAUTION

- If the ICA is suppressed for some reason (such as the lane marking exits for a short time, etc.), it will be automatically restored when the working conditions are met.
- When the driver judges that the ICA system does not control the vehicle properly, the driver shall hold the steering wheel firmly for proper control. The ICA function can be interrupted by the driver operating the steering wheel.
- The ICA function may be interrupted by the operation of the driver, such as stepping on the brake pedal, quickly stepping on the accelerator pedal, pressing the ICA function button, unfastening the seat belt, pressing the hazard warning lamp, etc. Please pay attention to keeping your hands on the steering wheel.

 **Warning**

- ICA is only a driver assistance function and cannot cope with all road, traffic and weather conditions. The driver shall always be fully responsible for driving and shall always pay attention to the road conditions and actively control the vehicle.
- The driver must hold the steering wheel all the time to 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 all chapters about 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 of ICA or negligence may lead to accidents. The driver always bears the ultimate responsibility for controlling the vehicle and maintaining an appropriate vehicle speed and headway to keep the vehicle traveling correctly in the lane, even if using ICA.
- ICA is not a collision avoidance system. When ICA does not take proper control, the driver must intervene.
- Do not use the ICA in urban traffic, intersections, waterlogged and snowy roads, bad weather, mountain roads, undulating roads, expressway entrances and exits, etc. Do not use ICA when the car is connected to a trailer.

 **Warning**

- ICA does not 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, the integrated cruise assist (ICA) may not generate lateral assist torque when required, or may generate unnecessary lateral assist torque by mistake.
- ICA can only use the limited capability of steering system, so it cannot cover all driving conditions. The driver must keep his hands on the steering wheel at all times and drive carefully. The driver must hold the steering wheel or reduce the car speed appropriately on high-speed curves.

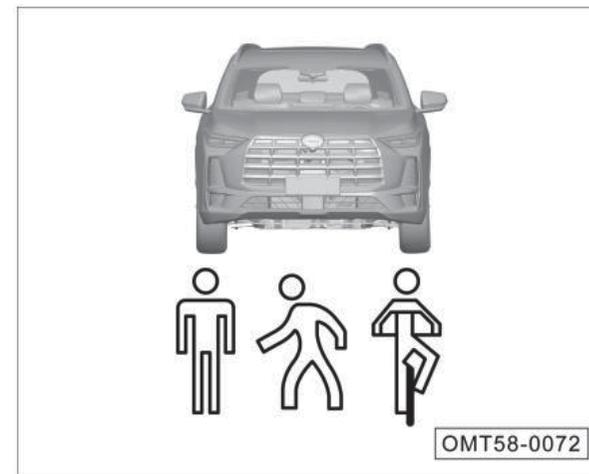
 Warning

- **ICA cannot perform braking for pedestrians, animals, foreign matters, lowbed trailers or oncoming traffic.**
- **ICA does not work for all traffic conditions. In case of too high curvature of the lane marking before a sharp bend or a road section without lane markings, the lateral assist may be suddenly deactivated. Be sure to hold the steering wheel and actively control the vehicle at all times.**

### 5.4.3 Forward collision mitigation (FCM)

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 MMR 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 measure sin 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:



- Vehicles
- Two-wheelers
- Pedestrians

 NOTE

Refer to the precautions for use of radar and IFC sensor. => [See page 142](#)

### Forward collision warning (FCW)

FCW 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.

When the FCM gives an alarm, there are two warnings:

#### 1. Proximity warning

When the FCM warning is triggered, the FCW indicator lamp  of the instrument cluster will flash, and the instrument cluster will give an audible alarm and an animation prompt.

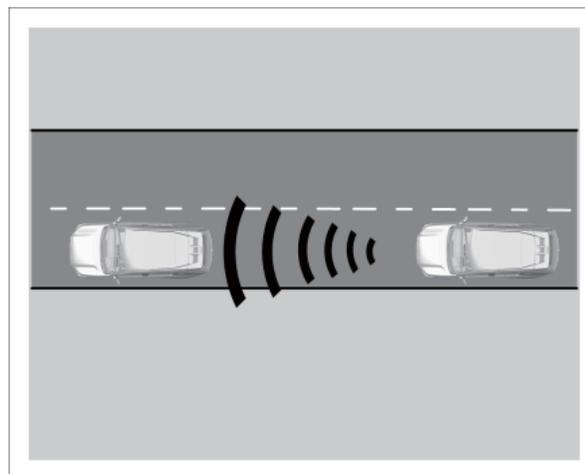
#### 2. Snub braking

When the vehicle has a high risk of colliding with the moving target vehicle, brake jerk is triggered to remind the driver that the brake shall be applied immediately.

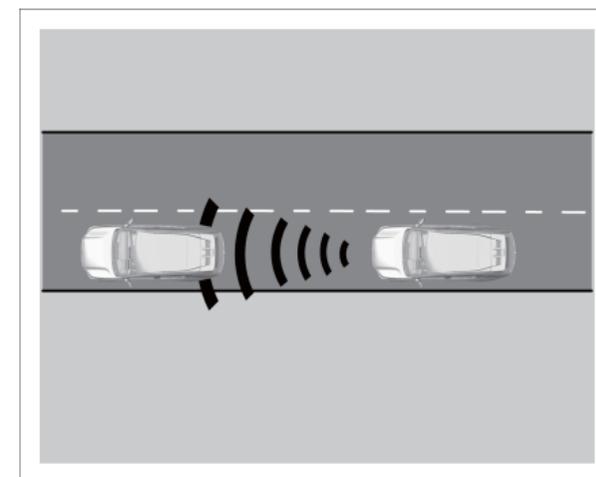
### Autonomous emergency braking (AEB)

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.

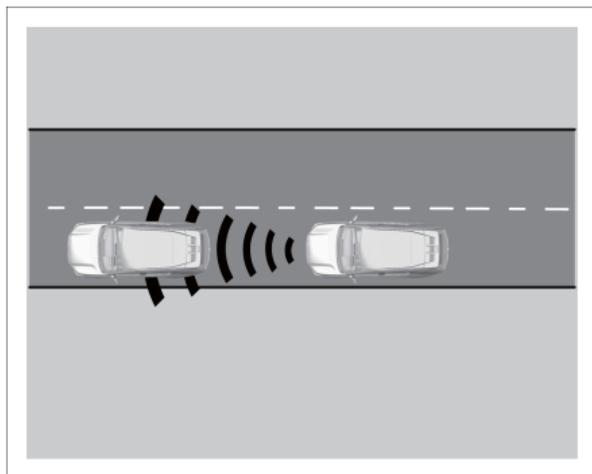
### Active brake level



- First-level braking: Brief braking is performed while this car is approaching to a frontal vehicle.



- Second-level braking: Slight automatic emergency braking is performed while this car continue to approach to the frontal vehicle.



- Third-level braking: Fully automatic brake is performed because a rear-end collision is inevitable.

### On/Off

- When the START/STOP button is set to the "ON" position, the FCW function and AEB will be automatically turned on.
- The "FCW" and "AEB" can be turned on or off in the A/V system.

### **i** NOTE

- The warning distance "far, medium and near" can be set when the FCW is activated. The FCW warning distance supports memory, which memorizes the last set warning distance.
- After the FCW and AEB are turned off, the system will no longer give alarm or apply brake for vehicle and pedestrian targets.
- If the FCW or AEB is turned off, the FCW and AEB are automatically turned on by default when the ENGINE START/STOP button is switched from "OFF" position to "ON" position again.
- Manual operation to turn off FCW and AEB will be prohibited after the vehicle reaches a certain vehicle speed.
- After the FCW or AEB is turned off, it will be prompted by text or indicator lamp on the ICM interface.

### System limitations

There are physical and system limitations in FCM, for example, FCW and AEB can be triggered inadvertently or with delay in some cases due to driver interference. Therefore, the driver shall stay vigilant and take over control of the car if necessary.

The FCM may work after a certain delay or fail to work when:

- The ground clearance of vehicle ahead is large, such as a semi-trailer.
- The rear of vehicle ahead is low, such as a low bed trailer.
- The vehicle ahead has an irregular shape, such as a tractor or a sidecar.
- The brightness of surrounding environment changes abruptly, such as tunnel entrances and exits.
- 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 is suddenly driven in front of the vehicle.
  - There is a bicycle with a special shape ahead, such as a tandem bicycle.
  - The vehicle is driven at a very high speed.
  - The vehicle is driven on a slope.
  - The car is driving on a narrow curve.
  - The accelerator pedal is depressed deeply or the vehicle accelerates quickly.
  - The assist function is deactivated or operates abnormally.
  - The ESP is manually deactivated.
  - ESP control is activated for the car.
  - The surface of the area where the IFC is located or the surface of the radar sensor is dirty or covered by foreign matters.
  - The car is reversing.
  - Traffic is chaotic.
  - The vehicle is towing another vehicle.
  - A pedestrian is standing on a refuge island or a curve.
  - A pedestrian is completely or partially covered by other objects, such as a worker holding a ladder or a pedestrian holding an umbrella.
  - A pedestrian wears exotic costume or mask, e.g. carnival costume.
  - External conditions such as sunset, night, ice, snow, heavy rain, fog and backlight lower the visibility.
- If a collision is impossible, the system may work when
- There is a pattern of detectable object in front of the vehicle.
  - The vehicle is overtaking a vehicle that is changing lanes or turning right/left.
  - The vehicle is overtaking a vehicle that is ready to turn right/left.
  - There is a detectable object at the entrance of a curve.
  - The vehicle changes lanes while overtaking a detectable object.
  - The vehicle approaches a detectable object ahead while running on a winding lane or changing the driving route.
  - The vehicle runs under portal frames, billboards, road signs, etc.
  - There are metal objects such as manhole covers and steel plates in front of the vehicle.
  - The vehicle approaches a road side telegraph pole, railing, tree, etc.
  - The vehicle runs over grass, branches, banners and other objects that may come in contact with it.
  - 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 rotor dynamometer 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 take risks by using the convenient functions provided by the FCM. The driver must always be ready to apply braking to the car, reduce the speed or avoid all obstacles.
- The FCM only works for alarm and collision mitigation to the vehicle or pedestrian that has been detected by the radar and IFC sensor, so it may not respond or have a certain delay in 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 turned on, the driver must always control the vehicle during driving and take full responsibility for the vehicle speed and the distance from other vehicles.
- Never ignore the alarm lamp and instrument cluster display reminder, otherwise it may cause traffic accidents and serious injuries.
- Therefore, be sure to pay attention to the traffic conditions. Do not rely too much on the AEB. The AEB is only a driving assistance tool. The driver shall be responsible for maintaining a proper distance from the vehicle in front, controlling the vehicle speed and braking in time. The driver must always be ready to apply braking or steering.

 **NOTE**

- Depressing the accelerator pedal or turning the steering wheel will terminate the FCW alarm and AEB braking intervention.
- In complex driving environments (for example, when the vehicle is traveling on a circuitous road), the FCW and AEB may give unnecessary alarms and brake interventions.
- When the AEB is triggered, the vehicle will be braked, and the brake pedal may incur vibration or hardening sensation, which is normal.
- When affected by factors such as electromagnetic field interference, target's own reasons or environment, the detection will be disturbed and the performance will decline.

#### 5.4.4 Lane departure warning (LDW)

The LKA is to reduce the occurrence of accidents caused by unconscious lane departure.

The LDW detects the lane markings on the road through the IFC installed on the front windshield, analyzes the driver's driving behavior and vehicle motion status, and gives a warning or intervenes in the steering wheel to correct the vehicle when the driver unconsciously deviates from the lane due to fatigue, distraction or phone calls. It usually gives a warning or interferes with the steering wheel when the front wheels cross a lane marking.

When the driver selects the assist mode as "Steering" or "Steering and Warning" 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.

#### On/Off

The LKA can be turned on or off in the A/V system.

When the function is turned on, the button is in the ON status, and the LDW indicator lamp  on the instrument cluster is on; When the function is turned off, the button is in the OFF status and the LDW indicator lamp on the instrument cluster is off.

The system has the button state memory function, so that when the vehicle is restarted, the button will be in the state before last shutdown.

#### Selecting LKA mode

With the START/STOP button in "ON" position, enter the A/V system 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.

#### NOTE

- The LDW has the LKA mode memory function, so the lane keeping assist mode before last shutdown will be selected when the vehicle is restarted.
- Due to the regulatory requirements of different countries or regions, the LKA mode options may vary. The actual effect shall be subject to the actual vehicle.

### Alarm

The lane departure warning is only activated when "Warning" or "Steering and warning" has been selected as the LKA mode.

- When the vehicle speed is greater than 65 km/h and the system detects at least one valid lane marking on one side, the status indicator lamp  of the ICM comes on in blue. It indicates that the system may issue a lane departure warning in this case. When only the lane marking on one side is recognized, the system will only give warning for this side.

When the  indicator lamp turns blue, the system may not issue a warning if the vehicle departs from the lane under one of the following conditions.

- The brake pedal is slammed for deceleration.
- Corresponding turn signal lamp has been activated.
- The hazard warning lamp has been activated.
- The steering wheel is turned quickly.
- The time since the last alarm is short.
- The car is running while rolling on or crossing over a lane marking constantly.

When the  indicator lamp lights up in blue, if no condition mentioned above happens and the vehicle departs 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 ICM and beeping.

### Steering assist

The corrective steering adjustment prompt of lane departure is only triggered when the assist mode is "Steering" or "Steering and Warning".

When the instrument indicates the vehicle speed of greater than 65 km/h and the system detects at least a valid lane marking on one side, the indicator lamp  on the ICM will turn blue. This indicates that the system may intervene in turning of steering wheel for corrective steering adjustment. When only the lane marking on one side is detected, the system only works for lane keeping assist to that side.

When the  indicator lamp is blue, if the vehicle deviates from the lane under one of the following conditions, the system will not intervene in the steering wheel for corrective steering adjustment.

- The brake pedal is slammed for deceleration.
- Corresponding turn signal lamp has been activated.
- The hazard warning lamp has been activated.
- The steering wheel is turned quickly.

- The time since the last alarm is short.
- The car is running while rolling on or crossing over a lane marking constantly.
- The instrument cluster gives a takeover prompt to the driver because the driver's hands get off the steering wheel for a long time.

When the system intervenes in the steering wheel for corrective steering adjustment, the driver can feel the system exerting torque on the steering wheel, and the ICM will display the corresponding lane marking (blue) prompt.

### Hands-on reminder



When the LDW detects that the driver's hands are off the steering wheel for a long time, the system will issue a hands-on reminder, and the ICM will display the above figure with an audible alarm. This reminder only exists if the driver selects "Steering" or "Steering and warning".

The driver shall immediately hold the steering wheel when the takeover indication has been received. Do not panic and avoid turning the steering wheel sharply unnecessarily. When the LDW detects the hand torque applied to the steering wheel, it can recognize that the driver is holding the steering wheel and the hands-on reminder is canceled. The LDW is automatically reactivated.

### i NOTE

When the driver's hands are lightly holding on the steering wheel, the system may misinterpret it 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 the IFC failure, the message "IFC is blocked" will pop up on the ICM.

Usually, it is caused by dirty front windshield glass or the IFC directly exposed sunlight. The LDW will not be damaged therefrom and maintenance is not required.

The driver may try to clean the windshield glass by spraying water on it and activating the windscreen wiper.

When the system detects a fault, the message "Please check LDW" pops up on the ICM and the  indicator lamp lights up in yellow. Please go to the GAC Motor authorized shop for inspection as soon as possible.

### Functional limitation

Even if the LDW is turned on and working, it may incorrectly detect or fail to detect the lane marking due to unavoidable environmental factors and conditions. The system may be affected or inoperative under the following conditions:

- poor line of sight, such as snow, rain, fog or water spots.
- Dirty or foggy front windshield, or obstruction in front of the IFC on the front windshield.
- Overtemperature 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.

## 5. Driving guide

- unobvious, too thin, worn, blurred or dirt/snow-covered lane markings.
- too wide or narrow lanes.
- increase or decrease in the number of lanes, or complicated routing of lane markings.
- More than two lane markings on the left and right sides of the car.
- marks or objects similar to lane markings on roads.
- isolation strips or other objects casting shadows on lane markings.
- short-term change of marking, such as ramp or highway exit.
- driving on steep slopes or curved roads.
- close distance from the vehicle in front or lane markings blocked by the vehicle in front.
- severe shaking of the car.

Under the following conditions, the performance of the system may be affected while it intervenes in turning of steering wheel for corrective steering adjustment:

- car overload.
- Abnormal tire pressure.
- uneven road.
- strong crosswinds.
- modification of car control-related parts by the driver.
- replacement of car control-related parts with non-matching parts manufactured by the original factory.
- improper assembly of car control-related parts.

### NOTE

When the LDW intervenes in the steering wheel for corrective steering adjustment, the driver can still turn the steering wheel to control the vehicle. When the driver feels an implausible torque applied to the steering wheel by the system, the driver may take over control of the car at any time to drive it at will.

### CAUTION

- When the LDW detects an unconscious deviation from the lane, it will issue a warning or intervene 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, slam the steering wheel unnecessarily or shake the steering wheel unnecessarily. Just hold the steering wheel and drive the car as usual.
- When "Warning" is selected as the LKA mode, the system will not perform steering intervention and issue takeover prompt. When the mode is "Steering", the system will not issue an alarm prompt.

 Warning

- The LDW is only a driver assistance system and cannot actively control the vehicle to change lanes or keep the lane. It is the driver's responsibility to always pay attention to the road conditions and actively control the vehicle. Be sure to always hold the steering wheel and actively control the vehicle.
- Improper use or negligence in use of the LDW may cause accidents. Do not rely on the LDW or try to drive dangerously with the help of the LDW.

 Warning

- The LDW system can not always recognize lane markings and lane edges. The system may mistakenly identify or even don't identify a lane marking or a lane edge due to bad weather, poor night lighting, water or snow on road, damaged or blurry lane markings, or shade on roads.
- This may cause missed and false triggering of the function, so the driver must concentrate on observing the road and traffic conditions and drive carefully.

 Warning

- Avoid strong impact, moisture and heat on the IFC of the system. It is forbidden to disassemble and assemble the parts by yourself. Do not place objects that will reflect light on the instrument panel, as these objects are not only easy to dazzle the driver, but may also reflect light into the field of view of the IFC, affecting the normal operation of the function.
- Do not tint the front windshield of the vehicle or apply coating that does not meet the specifications. Any additional items that affect the line of sight of the IFC may affect the normal operation of the system.
- Prevent the bumper or body from scratching or modification, otherwise the normal operation of the LDW may be affected.

 **Warning**

- **When the system 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 system will not issue a warning or perform steering intervention even if the vehicle deviates or departs from the lane.**
- **The system can only use limited steering capacity, so the vehicle may not always be pulled back to the correct lane.**
- **The sound inside the vehicle or the noise outside the vehicle may prevent you from hearing the warning beep, so it cannot be guaranteed that you will be alerted to the alarm issued by the LDW under any circumstances.**

**5.4.5 Intelligent headlamp control (IHC)**

The IHC detects traffic and environmental factors in real time through an IFC sensor on the upper edge of the front windshield, and can achieve automatic switching between the low beam and the high beam. For example, when driving on a road with insufficient lighting at night, the driver turns on the IHC function. When the system determines that the conditions for turning on the high beam are met, the high beam will be automatically turned on; When the system recognizes that the vehicle is meeting or too close to the vehicle followed, the high beam will be automatically switched to the low beam.

**Activating intelligent high beam**

1. The IHC function can be activated in the A/V system.

 **NOTE**

This setting has a memory function. After the vehicle is started, the function on/off status will be the same as the state when the vehicle is shut down last time.

2. Turn the lamplight control switch to AUTO to turn on the automatic headlamp.
  - After the IHC function is turned on, it is in the standby status. When the conditions for turning on the high beam are not met, or the driver does not manually turn on the high beam, the  indicator lamp on the instrument cluster will be white.
  - When the IHC is turned on, if the conditions for turning on the high beam are met, the system will automatically switch to the high beam. At this time, the instrument cluster will display a blue  indicator lamp.

**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.
- The IHC function can be turned off in the A/V system.
- Shut down the vehicle.

**i NOTE**

The high beam and high beam flashing function can be turned on and off manually at any time.

**Conditions for inhabiting intelligent high beam**

The high beam request will be suppressed and the IHC will request the high beam to be turned off in the following cases:

- The vehicle speed is less than 15 km/h.
- The fog lamp is turned on or it is rainy and foggy.
- The wiper remains at HI position for a period of time.
- The ambient light is bright.
- A street lamp is detected, there is a vehicle in the short distance ahead or there is an oncoming vehicle.

In the following cases, the IHC will suppress the switching between the high and low beams. In the absence of the conditions mentioned above, the system will propose to maintain the current light status:

- The lateral acceleration or yaw velocity is too high.
- The car is at the highly dynamic state (ABS or ESP active).
- The vehicle speed is lower than 35 km/h.

- turn signal lamp turned on.

**Functional limitation**

When the intelligent high beam is used as an assist, the intelligent headlight control (IHC) may be delayed or even unavailable due to the following:

- The windshield glass in front of the intelligent forward camera 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 and bicyclists on poorly lit roads or roadsides.
- The light of the front incoming 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 vehicle ahead is low or does not comply with national standards when the car is following the vehicle ahead.
- The car meets another oncoming vehicle in case of an extremely tight turn/mountain road/low-lying ground.
- The car is driving on a slope or a bumpy road.
- The car is driving in a heavily rainy, snowy or foggy day.

- The intelligent forward camera is damaged or its power supply has been cut off.

**⚠ Warning**

**The IHC is a driving assistance, which can help you in using the lamp in the best way under suitable conditions. The driver shall always be responsible for manually switching between the high and low beams when the traffic and environmental conditions require.**

- **The IHC may not be able to correctly identify all driving environments and may not work properly in some environments.**
- **If the IFC is covered by dirt, stickers, ice and snow, the IHC may be unavailable.**

 **Warning**

- **If the vehicle lighting system is changed (for example, the headlamp is modified), the IHC performance may be degraded or the function may be unavailable.**
- **When meeting non-motor vehicles such as bicycles and electric bicycles or encountering pedestrians, the IHC shall be turned off in time to prevent dazzling.**

**5.4.6 Millimeter wave radar and intelligent front camera (IFC)**

**Millimeter wave radar (MMR)**

The MMR sensor is installed in the middle of the grille under the front bumper to monitor the traffic conditions and detect the front vehicles at a certain distance from own vehicle.

The MMR must be adjusted and calibrated under the following conditions:

- The fixing bracket of the MMR sensor is removed and refitted.
- The MMR sensor is removed and refitted.
- The toe or rear wheel camber is adjusted during the four-wheel alignment.
- The car has a collision.

 **NOTE**

- Special tools and equipment are required to be used in adjustment and calibration of MMR. If the MMR sensor needs adjustment and calibration, please go to the GAC Motor authorized shop for relevant operation.
- Inoperative or misadjusted MMR sensor may affect the ACC, ICA and FCM.

### Special considerations on MMR sensor

The MMR sensor is installed at the front of the vehicle, and no obstacle shall be present in its detection area. Do not install the obstacles such as the license plate frame when installing the front license plate. Otherwise, the detection performance of the MMR will be affected, resulting in the failure of the ACC, ICA and FCM.

#### CAUTION

- If the MMR sensor is dirty, blocked by the license plate frame, or covered by any foreign matters 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 strong reflection of the MMR ultrasonic wave (for example, when in a parking lot), related functions of MMR sensor may be affected.
- It is forbidden to cover the front and surroundings of the MMR with sticker, driving assistance lamps, license plate frame or other similar objects, otherwise the related functions of the MMR may be affected.
- It is recommended to use a brush to remove the snow on the sensor surface; It is recommended to use a non-soluble de-icing spray to remove ice from the sensor surface.

#### CAUTION

- Repairs to the front body of the vehicle may cause change in the radar sensor direction and affect related functions of MMR (ACC/ICA/FCM). Therefore, please go to the GAC Motor authorized shop for service in time.
- If the MMR sensor is damaged or its direction changes, please turn off the related function of MMR (ACC/ICA/FCM), and go to GAC Motor authorized shop to recalibrate the MMR sensor in time.
- The direction of the MMR sensor may change due to vibration, for example, when the area near the front bumper radar collides with the curb/flower bed. Changing the direction of the sensor may affect the performance of the functions dependent on the radar or even lead to abnormal shutdown of the system.

### Intelligent front camera (IFC)

An intelligent forward camera is installed on the upper part of the windshield glass to detect the surrounding environment. The camera can identify pedestrians standing up to 80 m away from the car when no obstacle blocks it (in case of the environmental factors such as lighting are ideal). The minimum pedestrian detection height of the camera is 0.8m. The forward camera sensor must be calibrated under the following conditions:

- The front windshield or camera bracket is removed and replaced.
- The IFC is removed and replaced.

#### NOTE

If the IFC fails, the systems such as ACC, ICA, LDW, FCW and IHC will fail as well.

#### NOTE

- The calibration of the IFC sensor requires the special tools and equipment. If the calibration of the IFC sensor is required, please go to the GAC Motor authorized shop for relevant operation.
- When the IFC sensor is failed, misadjusted or blocked, the normal use of the ACC, FCM, LDW, ICA, IHC and other functions may be affected.

#### CAUTION

- Poor lighting conditions, such as night, backlighting, and heavy rain, may affect the camera, resulting in interruptions or reduced performance of driver assistance-related functions. In severe cases, it may lead to complete deactivation of the functions, and the instrument cluster will display relevant alarm messages.
- Dust, mist, ice, snow or sludge on the front windshield will affect the field of view of the camera. In these cases, the driving assistance related functions will be deactivated. In this case, please wipe the area near the camera on the front windshield, or turn on the A/C defrosting and defogging function. The function will return to normal after the obstruction is cleaned.

 CAUTION

- If the IFC interference factor disappears, the pedestrian detection system will work again.
- Low light conditions at sunset or night may affect the pedestrian detection function. It is prohibited to block the sight around the intelligent forward camera with stickers or opaque objects; otherwise, the pedestrian detection function may not work properly.
- Before driving the vehicle, please check whether there is any obstacle in the area around the IFC.
- Keep clear vision of the IFC on the front windshield.

#### 5.4.7 Tire pressure monitoring system (TPMS)

The TPMS monitors the tire pressure and temperature through the tire pressure sensor in the wheel and displays the current tire pressure and temperature on the ICM.

If the vehicle has been left unused for more than 7 days or the low-voltage battery has been disconnected, the pressure value and temperature value displayed on the ICM will be "---" when the vehicle is started again. When the vehicle has been driven for a period of time, the current tire pressure and temperature will be displayed on the ICM.

##### Alarm description

- When the tire has quick air leakage, the tire temperature is too high, or the tire pressure is too high or too low, the  indicator lamp on the ICM will come on, reminding you that the tire is in an abnormal status and you must stop the vehicle and check the tire as soon as possible. Please contact the GAC Motor authorized shop for inspection in time.

#### 5.5 Parking assist system (PAS)

##### 5.5.1 Rear park assist (RPA)

The parking sensor system measures the distance between the car and an obstacle via the radar sensors sending and receiving ultrasonic waves reflected from the obstacles.

##### On/Off

- When the vehicle reverses at a speed not higher than 10 km/h with EPB released and gearshift lever set to "R" position, the RPA will start working.
- When the vehicle speed is greater than 12 km/h or the gearshift lever is set out of "R" position, the RPA will stop working if the EPB is applied.

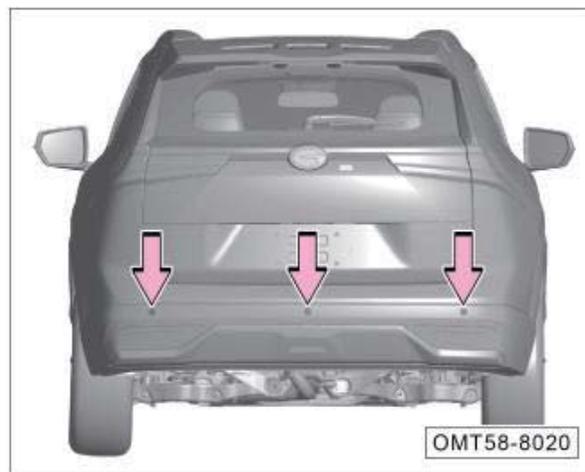
### Dynamic view



The dynamic view on the display indicates the distance between the current vehicle and the obstacle. In the view, the outermost layer of the vehicle is green line, and the inner layer gradually becomes yellow line, orange line and red line. When the obstacle is getting closer and closer to the vehicle, the color line will gradually change from the outermost layer to the inner layer.

Change of dynamic view is synchronized with that of the audible alarm with reference to distance.

### Distribution of radar sensors



The RPA sensors are installed on the rear bumper cover.

### CAUTION

- Always keep the surface of the radar sensors clean and never cover a radar sensor.
- Keep the radar sensors clean and protect them from freezing to ensure they operate properly.
- When cleaning the surface of the radar sensor, use a soft wet cloth to avoid scratching the surface.

 Warning

- The RPA cannot take the place of the driver's observation to the surrounding environment. The driver shall be concentrated and reverse safely according to the actual conditions.
- The radar sensor has a blind spot when detecting obstacles. During reversing, the driver must pay attention to observation to avoid accidents.
- When the vehicle is reversing at a narrow place or on an uphill slope, the radar sensors may not detect railings, trees or slope surfaces, which is normal.
- When the reversing vehicle speed is high, the detection accuracy of the radar sensor reduces. Thus the reversing speed had better not to exceed 10 km/h. When the parking sensor system constantly issues audible alarms, it indicates that the car is extremely close to the detected obstacle, and reversing shall be stopped immediately to prevent an accident.

 Warning

- When a high-pressure cleaner is used, clean the radar sensors in snatches gently, with the nozzle at least 30 cm away from the sensor.
- If water drops are on the surface of the radar sensors, the sensitivity of the sensors will reduce. Wiping off them can restore the sensitivity of the sensors.
- The surface of some materials cannot reflect the signal from the radar sensors, so the radar sensors cannot detect such materials or people wearing the clothing made of such materials.
- Noise sources outside the vehicle may interfere with the radar sensors, preventing them from detecting any object.
- The radar sensor is a precision component, which shall not be removed, refitted and repaired without authorization. The company does not assume any responsibility for the damage caused by unauthorized removal & refitting and repair.

### 5.5.2 Surround view monitor (SVM)

The surround view monitor (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.

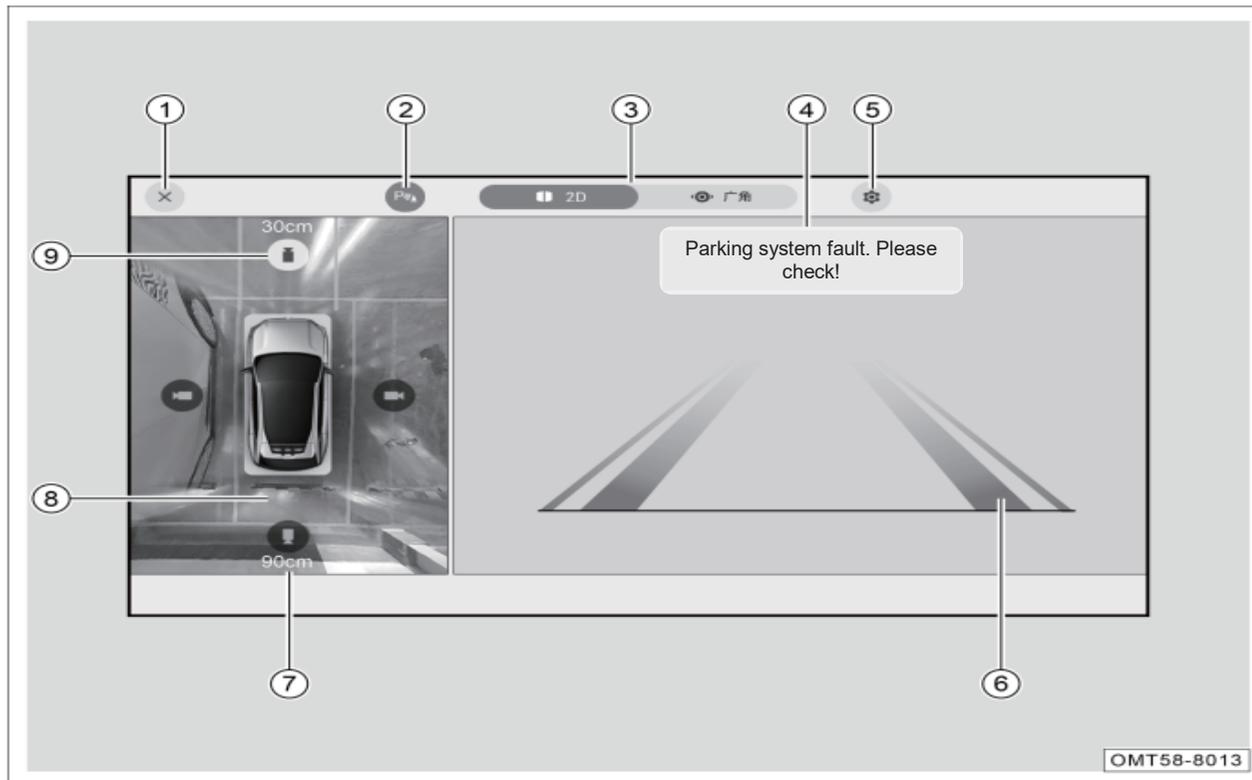
The SVM consists of four cameras, A/V system display, and "SVM" APP running on the A/V system. It collects the images of the front, rear, left and right directions of the vehicle, and stitches them into a 360° view of the vehicle through image processing algorithms, and then gets the image displayed on the AV system display.

#### On/Off

1. The SVM can be activated and deactivated by the gearshift lever. When the START/STOP button is in the "ON" position:
  - When the gearshift lever is set to "R" position, the SVM will automatically enable the full-screen 2D rear view.
  - When the gearshift lever is moved out of "R" and the driver performs no relevant operation, the SVM will be deactivated after about 30 s by default.
2. The SVM can be activated and deactivated by pressing the corresponding button. When the START/STOP button is in the "ON" position:
  - Click the A/V system menu bar  icon to enter the application menu interface, and click the "SVM" icon to activate the SVM; Click the "Exit" soft key on the SVM interface to deactivate the SVM.
  - When steering wheel custom button is set to "One-button SVM", you can press the  button on the steering wheel to activate the SVM.
3. Activate and deactivate by "turn signal combination lever". When the START/STOP button is in "ON" position:
  - If the "turn signal combination lever" is moved to the "left turn" or "right turn" position, the SVM will be activated; If the "turn signal combination lever" is moved to the "middle" position, the SVM will be deactivated automatically.
  - This function can be set "On" or "Off" in the "Settings" of SVM interface.

## 5. Driving guide

### Interface description



- ① Exit
- ② Radar audible alarm switch soft key
- ③ 2D/wide-angle view switching
- ④ Message pop-up window
- ⑤ Settings
- ⑥ Trajectory
- ⑦ Radar range display
- ⑧ Radar detection area
- ⑨ Image direction

**SVM setting items**

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 "ON" or "OFF" in the "Settings" of SVM interface.

2. Exit after shifting to P gear

- When the switch for exit after shifting to P gear is set to "Immediate", the SVM display interface will be exited immediately after the gear is shifted to P; When the switch for exit after shifting to P gear is set to "after 30 s", the SVM display interface will exit 30 s after the gear is shifted to P gear.
- This function can be set to "ON" or "OFF" in the "Settings" of SVM interface (there will be differences in multiple SVM display conditions, and the real vehicle shall prevail).

3. SVM activation by turn signal lamp

- When the switch for SVM activation by turn signal lamp is turned on, and the vehicle speed is within 30 km/h, if you turn on the left/right turn signal lamp switch, the 2D left/right view of the SVM will be displayed, and the SVM interface will exit after the turn signal lamp returns to the original position.
- This function can be set "ON" or "OFF" in the "Settings" of SVM interface.

**i NOTE**

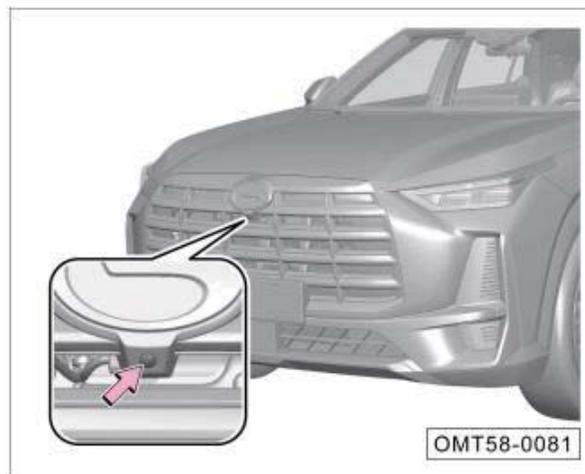
- When the SVM is activated, the A/V system will display the surrounding images of the vehicle and some auxiliary lines and radar prompts.
- If the forward vehicle speed is greater than 30 km/h, the system will be automatically deactivated.
- When the gearshift lever is not in the "R" position and the SVM has been activated for more than 30 s, the SVM will be deactivated automatically.

**i NOTE**

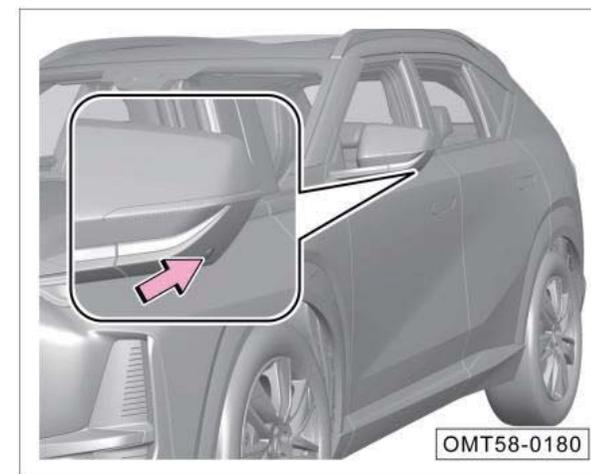
- If not fully enabled, the A/V system will not function normally.
- When the gearshift lever is in the "R" position, the image display area displays the 2D rear view by default.
- When the gearshift lever is not in the "R" position, the image display area displays the 2D front view by default.
- The 2D display mode has a memory function (except for the default 2D rear view in R gear), and the wide-angle view is not memorized. If the last operation before exiting the SVM is 2D mode, the default 2D view will be displayed next time you enter the SVM.
- The message pop-up window is only displayed when there is a message, and is not displayed at other times.
- The radar audible alarm can be issued after the radar audible alarm switch is turned on, and the radar audible alarm will not be issued after the switch is grayed out\*.

**i** NOTE

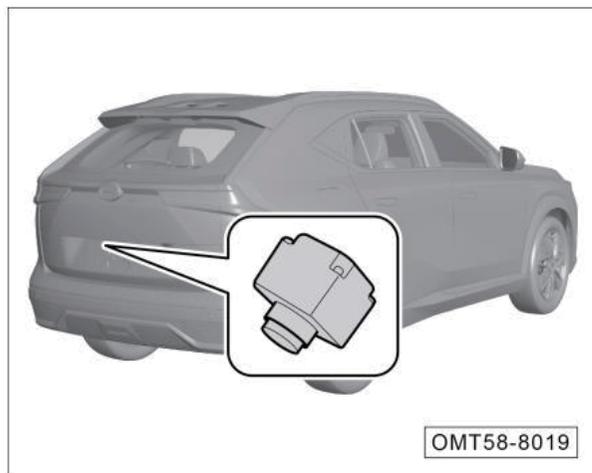
- In the wide-angle interface, different views of camera including "front wide-angle", "rear wide-angle", "front wheel" and "rear wheel" can be viewed.
- The SVM display interface varies depending on the vehicle configuration, and the actual vehicle shall prevail.
- When the left turn signal lamp is turned on, the image display area will be switched to 2D left view; When the right turn signal lamp is turned on, the image display area will be switched to 2D right view.
- The view can be switched manually through the "Screen Direction" soft key, and the corresponding view is displayed in the image display area.

**Distribution of cameras**

The front camera is installed under the front car logo.



The left & right cameras are installed on the left & right exterior rearview mirrors.



It is installed next to the license plate lamp.

**i** NOTE

To ensure that the camera works properly:

- Please keep the camera surface clean and free of foreign matters such as ice, snow, water and dust.
- When foreign matters are found on the camera surface, please wipe it with a soft cloth or clean it with water (low water pressure), and keep a distance of at least 30 cm from the camera during cleaning.
- Do not use high-pressure cleaner to clean the camera directly, and do not use abrasive or sharp objects to clean the camera.

**👁** CAUTION

Function limitations:

- When the camera fails to work normally, the function of relying on the camera to provide recognition information will be limited. At the same time, the recognition range of the camera will be limited, and the target beyond the recognition limit cannot be recognized.
- When the external environment is poor, resulting in unclear view of camera, it will affect the recognition ability of the camera.

 CAUTION

The following conditions can cause the camera to fail to recognize the target, delay the recognition or make the recognition errors:

- Poor lighting conditions (dim, low light) or poor visibility (caused by heavy rain, heavy snow, dense fog, etc.).
- The camera is facing the direct direction of the light source or the illumination intensity is insufficient.
- Sharp changes in light (e.g. entering and leaving tunnels).
- The camera is interfered due to weather conditions (heavy rain, snow, fog, extremely hot or extremely cold temperature).
- The surface of the camera is covered by foreign matters such as ice, snow, frost, rain, fog, water, dust, etc.
- The vehicle bumps or shakes due to uneven road.
- The view of camera is 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 used as an assist. The camera cannot work completely normally under all driving conditions or traffic, weather and road conditions. When the vehicle is in a complex or poor condition, you should drive carefully and always be responsible for driving safety.**
- **No license plate frame or other objects shall be installed on the front and rear license plates to avoid interference with camera, radar and other sensors.**
- **It is forbidden to replace, modify or add camera without authorization. Only the original or approved camera of GAC Motor Co., Ltd. can be used. Otherwise, the relevant functions may not work normally. GAC Motor Co., Ltd. will not assume any responsibility for direct or indirect losses caused thereby.**

**5.6 Electric power steering (EPS)**

EPS is a power steering system that directly relies on the motor to provide auxiliary torque, and is mainly composed of a integrated torque angle sensor (TAS), a motor, an ECU and a deceleration mechanism, etc.

The EPS ECU provides the steering effort in the best way by detecting the driver torque input, the vehicle speed and the engine power torque output, so as to ensure the easiness of steering at a low speed and the stability of steering at a high speed, and to improve the driving comfort and vehicle safety.

### EPS indicator lamp

In case of the START/STOP button set to the "ON" position, the  indicator lamp lights up. The system performs the self-test a few seconds after the engine is started and the indicator lamp goes out, which indicates that the EPS works properly.

If the  indicator lamp does not go out after the engine is started or comes on during driving, it indicates that the EPS is faulty, and in this case, and the instrument cluster display will show an alarm "Please check EPS". In this case, the car shall be parked in a safe place. Try to shut down and restart the engine. If the indicator does not go off or light up again while driving, do not continue to drive. Please contact the GAC Motor authorized shop for inspection.

### Steering mode

When the vehicle is in a stationary status, the steering mode can be set in the A/V system. The steering mode has "Light, Comfort and Sport" modes, where the turning effort of the steering wheel will be small in Light mode, moderate in Comfort mode, and large in Sport mode. The system is in Light mode by default.



In order to prevent an accident, it is forbidden to set the steering mode during driving.

### 5.7 Driving skills

#### 5.7.1 Traffic safety inspection

##### Routine inspection

- Check the tire pressure; check the tires for cuts, bulges, damage or excessive wear.
- Check whether the wheel studs are missing or loose.
- Check whether the headlamps, brake lamp, tail lamps, turn signal lamps and other lamps work normally; Check the illumination direction of the headlamps.
- 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 shell for cracks or deformation caused by expansion.
- Check for leakage of fuel, engine oil, water or other liquids under the car. Any water found after A/C operation is normal.

**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 defrost switch) work properly.
- The car shall not be biased to one side while checking and confirming braking condition on a safe road.
- For other anomalies, check for loose parts, leakage, and abnormal noise.

**5.7.2 Driving in running-in period**

In order to prolong the service life of the vehicle, the vehicle shall be subject to running-in of certain mileage before it is brought into use. Please comply with the following rules for your car in the running-in period:

- The running-in period shall be 1500km.
- Choose a road in good condition and drive it at reduced load and limited speed during the running-in period.
- Do not start the engine with full throttle or drive with harsh acceleration.
- Avoid emergency braking in first 300 km.
- 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 daily maintenance of the car carefully; check and tighten the external bolts and nuts frequently; check the sound and temperature changes of the assemblies generated by operation and adjust them timely.

**Engine running-in**

The running-in period of new engine shall be 1500km. Do not perform the following operations within the first 1000km of driving:

- The car speed shall not exceed 3/4 of the maximum allowable speed.
- Do not drive the car with full throttle.
- Avoid running the engine at high speed.
- Do not tow any trailer.

In case of the vehicle's driven mileage between 1000 km~1500 km, the engine speed and vehicle speed can be gradually increased to the those not higher than maximum allowable values.

The internal frictional resistance of the engine at the initial stage 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 consumption of the engine can be improved.

### Running-in of tire and brake lining

If the driven distance of a new car is not greater than 500km, the car shall be driven at a moderate speed and the new tires shall be run in fully.

Within the first 200 km-300 km of driving mileage, the brake linings have not reach the optimal friction status, so please drive at a low speed and avoid emergency braking as much as possible.

#### Warning

- **New tires and brake linings without running-in do not have the best adhesion and friction force. Therefore, drive the car cautiously within the first 500km, and fully run in the tires to prevent accidents.**
- **Newly replaced brake lining shall be subject to running-in according to the above requirements as well.**
- **During driving, keep an appropriate distance from other vehicles to prevent emergency braking, as the new tires and brake linings have not been subject to full running-in at this time and if an emergency braking is applied, a traffic accident is likely to occur.**

#### Warning

- **If the brake is damp, frozen or the vehicle runs on a salted road, the braking effect will be reduced.**
- **The brake shall be applied according to the road and traffic conditions. Do not step on the brake pedal unnecessarily to overheat the brake, resulting in too long braking distance and excessive brake wear.**
- **Do not coast the vehicle with the engine shut down. As the brake booster does not work, the braking distance will be greatly increased, which is liable to cause accidents.**

### 5.7.3 Driving essentials

#### Precautions under various road conditions

- When the car is driving on a road with crosswinds and gusts, the driver shall decelerate in advance and control the speed and steering wheel.
- The car shall avoid rolling on sharp-edged objects or other road obstacles, otherwise it may cause serious damage such as tires 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 car damage.
- When driving the vehicle downhill, decelerate in advance, and avoid emergency braking, otherwise the brake system will overheat or be worn prematurely.
- When driving the vehicle on a slippery road, be careful when accelerating or braking. Abrupt acceleration or emergency braking may lead to wheel slipping.
- When the vehicle is running on an icy or snowy road, drive at a low and constant speed; avoid abrupt acceleration or emergency braking And install tire chains for the wheels when necessary.

**Precautions while driving over a water-logged road section:**

1. Before driving over a water-logged road section, determine the depth of water, and the water level shall not be high than the lower edge of the car body.
2. For driving in water, turn off the A/C before the vehicle starts to move, slow down the vehicle, and then gently step on and hold the accelerator pedal, in order to pass through the accumulated water section at a steady and slow speed.
3. Stopping the car, reversing or shutting down the engine in water are all prohibited.
4. After successfully driving over the water-logged road section, it is important to gently depress the brake pedal for several times to evaporate the moisture on the brake discs so as to restore the usual braking performance as soon as possible.

**i 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. Proceed as below to check if the coolant is in good condition and if it is well protected from freezing:
  - Fill the cooling system with the same type of coolant as the one used in this car according to the ambient temperature.
  - Adding unsuitable coolant may cause damage to the engine.
2. Proceed as below to check the battery and cables:

- Stored energy of the battery decreases in very cold weather. Therefore, fully charge the battery for start-up in winter.
3. Proceed as below to prevent the door lock from being frozen by ice and snow:
    - Spray some de-icer spray or glycerin into the door lock hole to prevent the door lock from being frozen.
  4. The washer fluids containing antifreeze shall be used:
    - These products are available at GAC Motor authorized shop.
    - The mix ratio of water to antifreeze shall comply with the manufacturer's instructions.
  5. No accumulated ice and snow shall be found beneath the mudguard:
    - Because accumulated ice and snow beneath the mudguard may result in difficult steering. Stop the car regularly to check for accumulated ice or snow beneath the mudguard while driving the car in severe cold winter.
  6. According to different road conditions, it is recommended to bring several necessary emergency items such as:

## 5. Driving guide

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- Tire chains, the window scraper, a bag of sand or salt, the flashing light, the shovel, connecting cables, etc., which are recommended to be placed in the car.
- 7. In cold winter, 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 and Maintenance Manual.

### 5.7.4 Efficient use of vehicle

- Before driving, make sure that the park brake is completely released and the park brake indicator lamp is off.
- Maintain sufficient tire pressure, as insufficient tire pressure can cause tires to wear out quickly and waste fuel.
- Ensure the wheel alignment is accurate. Otherwise tires will wear out quickly, and the engine load will increase, causing fuel wasted.
- Do not overload the car. Unload unnecessary items from the car, as excessive load increases the engine load and wastes fuel.
- Accelerate the car slowly and smoothly to avoid rapid acceleration.
- Avoid roads with traffic jams as much as possible, as traffic jams waste fuel.
- Observe traffic lights or maintain a safe distance with other cars while driving to avoid unnecessary stop or emergency braking, so as to save fuel and reduce wear on the brake system.

- When the vehicle is running, do not step on the brake pedal, as it will cause premature wear, overheating of the brake lining and waste of fuel.
- When driving, select good road surface. If driving on uneven roads, control the car 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 car to maintain its optimal working condition. Dirty air filter, spark plugs, oil, and grease will reduce the engine performance and waste fuel.
- Drive slowly for a few minutes after starting the engine at low temperature, and ensure the engine is warmed up before acceleration.
- Do not open windows when driving at high speed.
- Reasonably use A/C, etc.
- In case of parking for a long time, please shut down the engine to avoid wasting fuel due to long time idling of engine.

### 5.7.5 Fire prevention

In order to prevent car fires, pay attention to the following during use:

1. It is forbidden to store flammable or explosive items in the car:
  - In hot summer days, the internal temperature of cars parked in the sun can be as high as 70°C or more. If flammable or explosive items such as lighters, cleaning agents and perfumes are stored in the car, fire and even explosion can be easily caused.
  - After people leave the car, items such as lithium batteries or power banks that are at risk of fire 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 inspection:
  - Regular inspections of all electric lines of the car are also required. Check whether the connectors, insulation, and fixing positions of electrical units and wiring harnesses are normal. If problems are found, they shall be dealt with in a timely manner.
4. It is forbidden to modify the electrical circuits or add electrical units:
  - Installation of additional electric consumers (such as high-power A/V device and xenon headlamps) will cause excessive load on the electrical line, causing overheating and even fire of harnesses.
  - It is strictly forbidden to use fuses that exceed the rated specifications of the electrical units or other metal wires to replace the fuses.
5. Precautions for driving:
  - During driving and parking period, especially in summer, pay attention to whether there are flammable items under the car, such as hay, dry branches, leaves, wheat stalks, etc. Since the temperature of components such as engine exhaust pipe increases after long time driving, if there are flammable items under the car, they are likely to be ignited and cause a fire.
  - Do not park the car in places where there is serious rat infestation, such as garbage dumps, and do not store items that attract rats, such as snacks, because rats will bite through the wire harnesses and may cause a fire.
6. Always place a lightweight fire extinguisher in the car, and master the use method:
  - In order to ensure the safety of the vehicle, place a fire extinguisher in the vehicle, and regularly check and replace it; At the same time, be familiar with the operation method of the fire extinguisher, so as to be prepared for handling any unexpected fire accident.

## 6.1 Maintenance instructions

### Safety precautions

To avoid potential hazards, please read this section before starting work and confirm that you have the necessary tools and techniques.

- Make sure that the car is parked on level ground, shut down the engine, and apply the park brake.
- When cleaning parts and components, use commercially available degreasers or parts cleaners, 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 car maintenance or driving the car before the problem is solved may cause a traffic accident, resulting in serious injury or death.**

### Potential hazards of the car

- Carbon monoxide: 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 can not list all the dangers you may encounter during maintenance work.

## 6.2 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 can not 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.**

**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

- The seat belt must be completely dry before it can be retracted. Otherwise, seat belt retractors may be damaged.
- Regularly check all the seat belts in the vehicle to ensure that the seat belts are clean and avoid hindering the normal operation of seat belts.

 **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 or intact.**
- **Prevent foreign matters or liquid from entering the seat belt buckle, causing failure of the buckle and seat belt.**
- **Under any circumstances, it is forbidden to remove or modify seat belts without authorization.**
- **It is forbidden to use chemical cleaning agents to clean the seat belts, for fear of damaging the seat belt webbing and impairing the function of seat belt.**

**Cleaning and replacement of filters**

The car is equipped with an air filter, an A/C filter, an oil filter, a fuel filter, etc. They aim to filter gas or oil. 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.

**6.3 Exterior maintenance**

**Vehicle washing**

Washing the car frequently helps to protect its appearance.

Car washing shall be performed in a cool place, rather than under direct sunlight. If the car is left in the sun for a long time, wait till the car body surface cools down before washing the car.

When using an automatic car washer, be sure to follow the instructions of the operator of the automatic car washer.

 **Warning**

**The vehicle power switch must be set to “OFF” position before vehicle washing.**

 CAUTION

The strength of the paint surface of the car body is sufficient to withstand the washing of the automatic car washer. However, the effects on the paint surface must be paid attention to. The structure of the automatic car 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 car washing**

- Rinse the car with plenty of water to remove floating dust.
- Prepare a bucket of water and add a special cleaning agent for car washing to it.
- Gently scrub the car with a soft cloth, sponge, or soft brush, and rinse it several times from top to bottom.
- Rinse the parts such as wheels and door sills at last. Replace sponges or soft cloth when washing the car.
- After scrubbing, rinse the car thoroughly with plenty of water.
- After washing, carefully dry the paint surface of the car using 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 car 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 car, keep a sufficient water spray distance from the car, and ensure the temperature does not exceed 60°C.

- Do not use a high-pressure cleaner to clean the radar sensor or parking camera for a long time; When cleaning the radar sensor or parking camera, keep the water spray distance more than 30 cm.

 Warning

- **When washing the vehicle manually, pay attention to personal safety and beware of angular parts at the bottom of the vehicle to avoid being scratched.**
- **When washing the vehicle, pay special attention to the bottom of the vehicle and the inner side of wheelhouses. Do not hurt hands and arms with sharp parts.**
- **Never spray water directly into the front compartment when washing the vehicle. Otherwise, it will affect the service life of various parts and components in the engine compartment.**

### Waxing

Regular waxing can protect the paint surface of the car body and keep the car body clean. In order to effectively protect the paint surface of the car 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 car dry before waxing. When waxing the car, please select a high-quality wax protectant. High-quality wax protectant generally falls into the following two types of products:

- 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 cars.
- 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 can not 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 car 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-icing 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 remove ice and snow from the windshields and rearview mirrors using warm water or hot water. Otherwise, the windshields may burst.
- If there are residual objects such as rubber, grease and silicone on the glass, they must be removed with a special window cleaning agent or silicone cleaner.

**Cleaning and maintenance of wiper cover**

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 blades**

- Set the START/STOP button to "ON" position and then to "OFF" position.
- Move the wiper combination switch to the "MIST" position within 10 s. The wiper arm will stop after running for half a circle.

- Lift the wiper arm and carefully wipe off the dust and dirt from the wiper blade with a soft cloth.
- After cleaning, gently lower the wiper arm back to the windshield.
- When the START/STOP button is set to "ON" position, the wiper arm will automatically return.

 CAUTION

- Be careful when lowering the wiper arm to prevent it from falling and hitting the windshield instantly.
- The surface of the wiper blade is coated with a layer of graphite to ensure smooth wiping without scratching noise. Solvent-based cleaning agents, hard sponges, and sharp objects can damage the graphite layer. Damaged graphite layer will increase the wiping noise of the wiper, and the wiper shall be replaced in time.
- In winter or cold conditions, always check whether the wiper blade is frozen with 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 car is appropriate 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.
- 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 use cluster head nozzles to spray the tires. Otherwise the tires will be damaged, causing traffic accidents.

## 6.4 Inspecting and adding fluids

### 6.4.1 Fuel

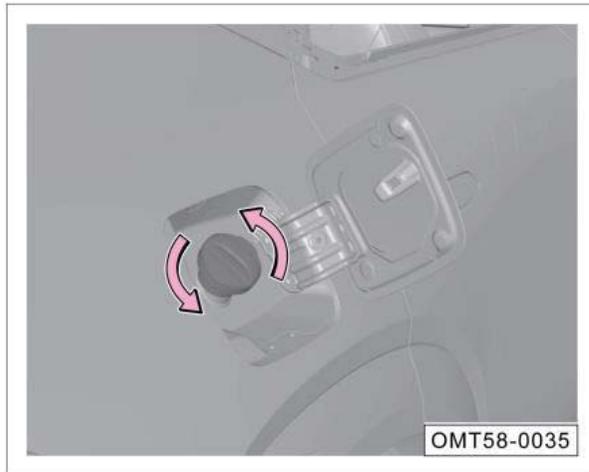
As the amount of fuel decreases when the car is running, the fuel meter scale will gradually decrease.

When the fuel level is too low, the yellow indicator lamp  flashes, and the ICM will give an alarm message. At this time, fuel shall be added as soon as possible.

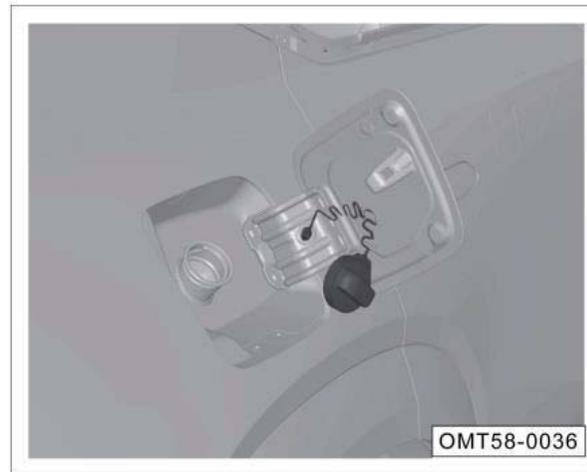
## Add fuel



1. Pull up the fuel tank cap release handle  to make the fuel tank cap pop up.



2. Fully open the fuel tank cap, slowly unscrew the fuel filler cap counterclockwise in the direction of the arrow, and keep the fuel filler cap in place for a moment when it is completely unscrewed to allow the fuel tank to release the internal fuel vapor pressure, and then take it out.



3. Hang the fuel filler cap on the inside of the fuel tank cap and start adding fuel.
4. After adding the fuel, tighten the fuel filler cap clockwise until a "click" sound is heard, indicating that the fuel filler cap is fully tightened.

#### **i** NOTE

- Please follow the fuel grade marked on the filler to add fuel.
- The fuel supply system of this model is designed with a closed fuel and gas recovery system. During refueling, the fuel gun switch may be triggered due to high ambient temperature or high fuel flow rate, and the fuel gun is switched off when the fuel tank is not filled fully. This is a normal phenomenon. At this time, the refueling speed shall be slowed down.

#### **👁** CAUTION

- Low-grade fuel or substandard fuel may damage the engine or make the engine fail to meet performance requirements.
- When the fuel is less than 1/4, in order to avoid the vehicle breaking down due to insufficient fuel supply on the uphill and downhill sections, please refuel in time.

 CAUTION

When refueling, the fuel gun shall be inserted into the deepest part of the refueling pipe. When the fuel 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.**

### 6.4.2 Engine oil

#### Function of engine oil

Engine oil has functions such as lubrication, sealing, cooling, anti-rusting and cleaning.

#### Specifications of engine oil

When the car leaves the factory, the engine has been filled with high-quality engine oil, which can be used in the year-round climate except for extreme cold weather.

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 car.

 NOTE

Oil grade:

- API SN/ILSAC GF-5.

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 interval shall be shortened and the maintenance times shall be increased.

 Warning

**Always use the engine oil approved by our company. Otherwise, the resulting engine damage will not be covered by the 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 lamps and related warning instructions may damage the engine.
- The low oil pressure warning lamp can not indicate the oil level, and the oil level must be checked regularly.

### Check the oil level

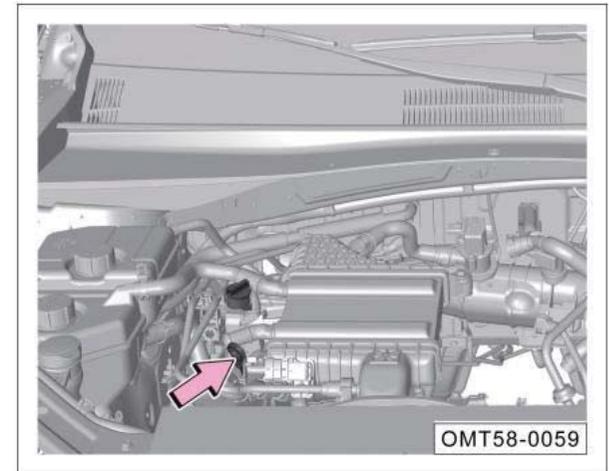
Be sure to check the oil level regularly. Park the car on level ground, apply the park brake, and shut down the engine. After the engine cools down, open the engine hood and check the oil level.

#### NOTE

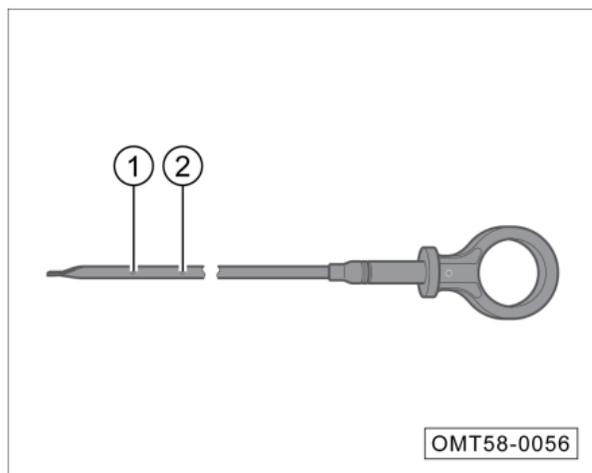
When checking the oil level, ensure the engine is cold.

#### Warning

- Be extremely careful while working in the front compartment.
- The front compartment is a high-risk area. Be sure to read and follow the relevant warning instructions carefully before opening the hood.

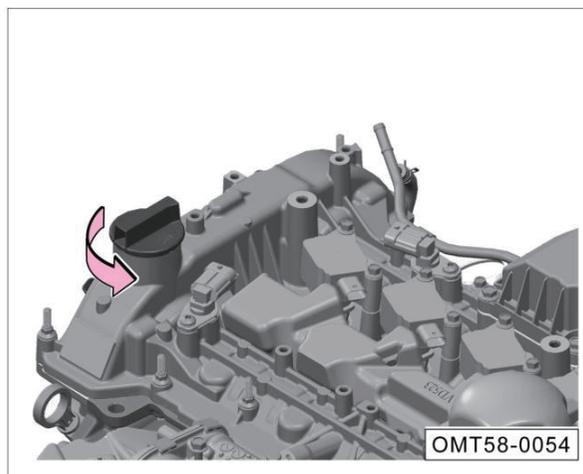


1. Pull out the oil dipstick.



2. Wipe off the oil on the dipstick using a clean rag, and then insert the dipstick completely.
3. Pull out the oil dipstick again and read the measured oil level, which shall be between the lower limit mark ① and the upper limit mark ② of the oil.
4. If there is too little oil, please add the oil in time. Otherwise, poor lubrication will damage the engine.

### Add oil



After checking the oil level, if required, add oil following the steps below:

1. Unscrew the oil filler cap counterclockwise.
2. Add small amounts of engine oil repeatedly, and check the oil level after each filling.
3. When the oil level is close to the upper limit mark ②, indicating the oil is sufficient, stop adding oil, refit the oil filler cap and tighten it clockwise.

### ⚠ Warning

- Be careful while 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 filling, be sure to tighten the oil filler cap to prevent the engine oil from splashing when the engine is being started, for fear of a fire.
- Since engine oil is toxic, it shall be stored in the original container and kept out of children's contact to avoid poisoning due to accidental ingestion.
- Do not add any lubricants to the engine oil. Otherwise, the engine will be damaged. Engine fault caused by adding lubricants is not covered by the warranty.

### 6.4.3 Coolant

#### Function of coolant

Coolant has functions such as cooling, anti-freezing and anti-corrosion.

#### Specifications of coolant

When the car leaves the factory, the cooling system has been filled with coolant, which can be used in the year-round climate except for extreme cold weather.

#### NOTE

- Coolant specification: 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 and Maintenance Manual.
- If the coolant is discolored, the maintenance interval shall be shortened and the coolant shall be changed at the GAC Motor authorized shop in time.

#### High engine coolant temperature indicator lamp

If the coolant temperature is too high, the  indicator lamp on the ICM will come on in red, and an alarm message will be displayed to remind driver; At this time, you must stop the vehicle in a safe place and shut down the engine. 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 starts, do not continue to start the engine. Contact the GAC Motor authorized shop timely for inspection.

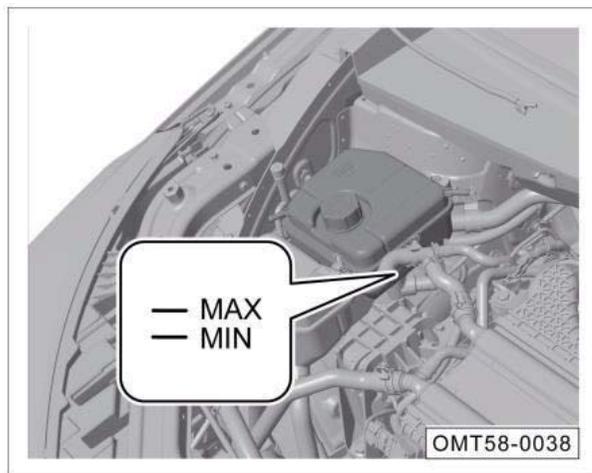
#### Check the coolant level

Be sure to check the coolant level regularly. Park the car on level ground, apply the park brake, and shut down the engine. After the engine cools down, open the engine hood and then check the coolant level.

#### Warning

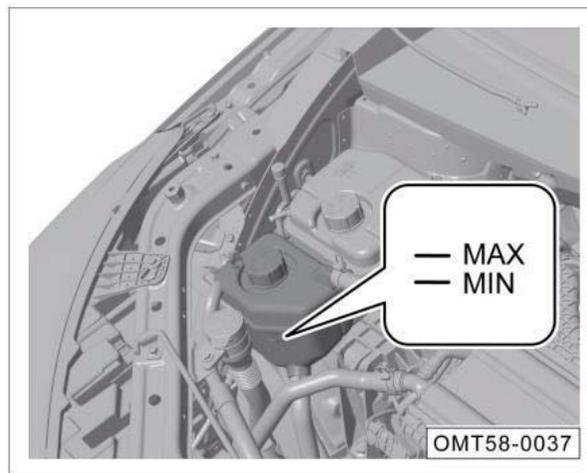
- **Be extremely careful while working in the front compartment.**
- **The front compartment is a high-risk area. Be sure to read and follow the relevant warning instructions carefully before opening the hood.**
- **Do not open the hood if you see steam or coolant overflow from front compartment, for fear of scald; The hood shall not be opened until there is no steam or coolant overflow and the engine has cooled down.**

### Engine coolant



Check whether the coolant level in the expansion tank is between the maximum scale mark "MAX" and the minimum scale mark "MIN".

### CAC coolant

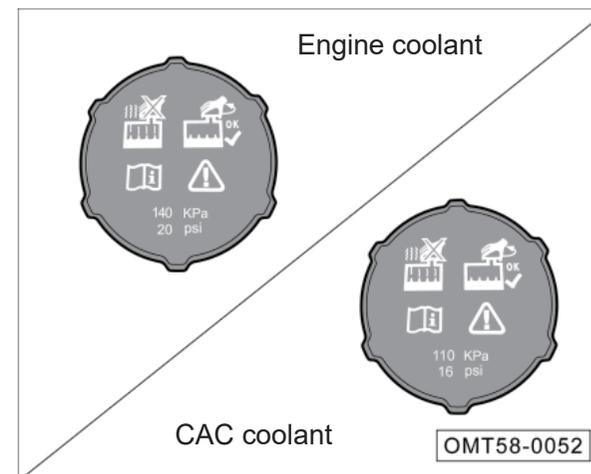


Check whether the coolant level in the CAC coolant expansion tank is between the upper limit mark "MAX" and the lower limit mark "MIN".

 CAUTION

When the coolant level is lower than the lower limit mark "MIN", coolant must be added. Too little coolant will affect the cooling effect and cause damage to the engine or CAC.

### Add coolant



After checking the coolant level, if required, add coolant following the steps below:

1. Wrap the expansion tank cap with a thick cloth and unscrew it counterclockwise.
2. Fill the coolant to a level between the upper limit mark "MAX" and the lower limit mark "MIN".
3. Tighten the expansion tank cap clockwise to the locking point.

 CAUTION

- When the engine 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 be added only after the engine or CAC is cooled. The added coolant level shall not exceed the upper limit mark "MAX", otherwise the coolant will overflow when the engine is started and the cooling system is under high pressure.
- Only fresh coolant is allowed to be added.

 Warning

- **It is forbidden to mix coolant that is not approved by our company into the original coolant.**
- **In case of emergency, if other coolant is used or pure water is added, go to the GAC Motor authorized shop in time to clean the cooling system and add new coolant.**
- **If too much coolant is consumed or it 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.**

#### 6.4.4 Windshield washer fluid and wiper blade

##### Add the windshield washer fluid



- If the level of the washer fluid in the reservoir is too low, the washer fluid shall be added in time.

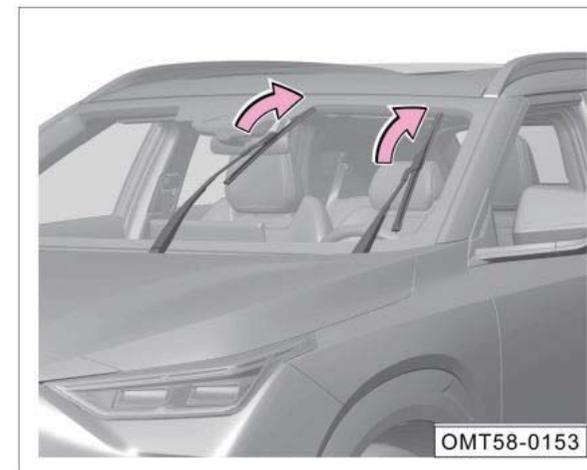
### CAUTION

- Do not use soapy water or other antifreeze instead of washer fluid, otherwise it may cause stains on the paintwork of the vehicle.
- Do not mix and use the windshield washer fluid with other cleaning liquids. Otherwise, the washer fluid will decompose and block the nozzle of the windshield washer.

### Warning

- **Be extremely careful while working in the front compartment. Be sure to read and follow the relevant warning instructions carefully before starting work.**
- **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 visual field 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.**

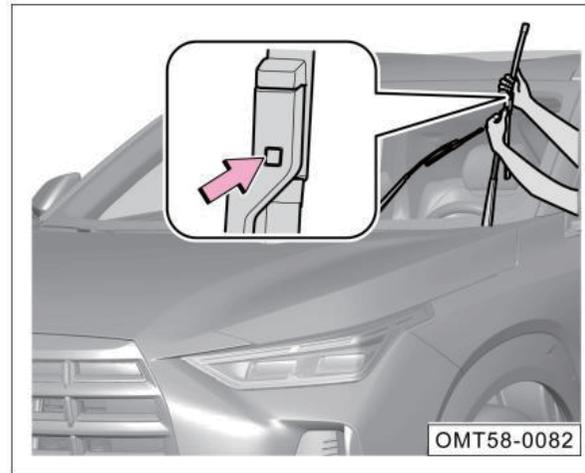
### Replace the front windshield wiper blades



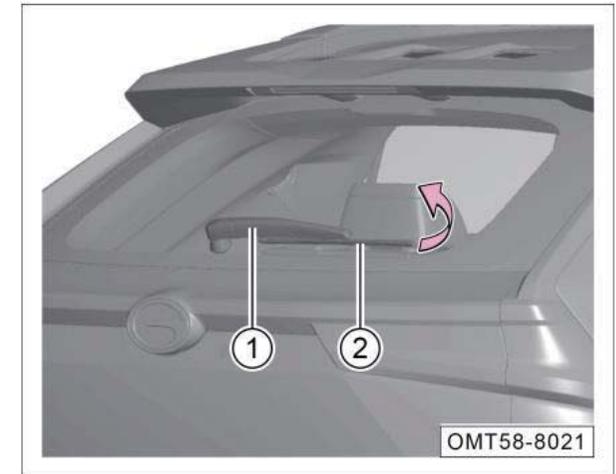
1. Set the START/STOP button to "ON" position and then to "OFF" position.
2. Move the wiper combination switch to the "MIST" position within 10 s to activate the wiper maintenance mode. The wiper arm will stop after running for half a circle.

**i** NOTE

In addition to the above method, the wiper maintenance mode can also be activated in the A/V system. After this mode is activated, the wiper arm will stop after running for half a circle. After this mode is deactivated, the wiper arm will automatically return.



3. Pull up the wiper arm, press the locking button as arrowed, and remove the wiper blade.
4. Slowly lower the wiper arm.
5. Install the new wiper blade into the wiper arm in reverse steps. It is installed in place when a "click" sound is heard.
6. Gently put the wiper arm back on the windshield.
7. When the START/STOP button is set to "ON" position, the wiper arm will automatically return.

**Replacing rear windshield wiper blades**

1. Hold the wiper arm ① by hand and lift it in the direction of the arrow.
2. Hold the wiper arm ① by hand, and push the wiper blade ② firmly in the direction of the arrow to remove it.
3. Slowly lower the wiper arm.
4. Install the new wiper blade into the wiper arm in reverse steps. It is installed in place when a "click" sound is heard.
5. Gently put the wiper arm back on the windshield.

 CAUTION

- The wiper arm can only be pulled up after it is adjusted to the wiper maintenance mode.
- Never open the hood when the wiper is pulled up, otherwise the hood and wiper arm will be damaged.
- New wiper blades with the same length and specifications as the previous ones must be used.
- Be careful when lowering the wiper arm to prevent it from falling and hitting the windshield instantly.
- The status of the wiper blades must be checked regularly, and the wiper blades must be replaced as specified. Damaged wiper blades must be replaced in time.
- Excessively worn or dirty wiper blades are very easy to scratch the windshield, and will affect the field of vision when used, reducing driving safety.

### 6.4.5 Brake fluid

#### Function of brake fluid

Brake fluid is used to transmit power in the hydraulic brake system of the car.

The brake fluid is water-absorbent. It continuously absorbs moisture in the surrounding air during use. If the brake fluid stays in the system for too long and absorbs too much moisture, air resistance will generate in the system pipeline during braking, reducing the braking effect and impairing driving safety; it may even cause the complete failure of the brake system, resulting in 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

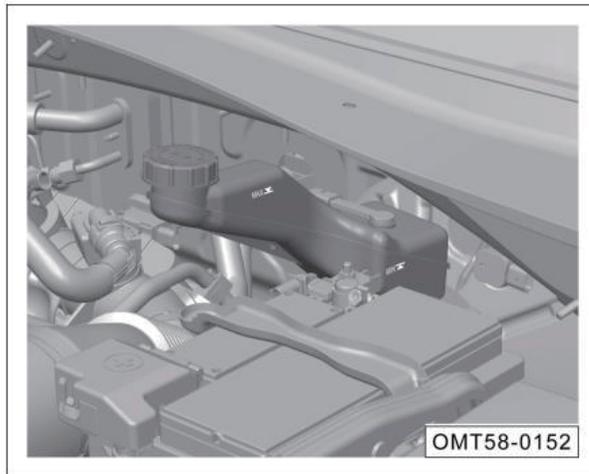
Specifications of brake fluid: DOT4.

 Warning

- **Using waste brake fluid or using brake fluid not applicable to the vehicle will remarkably reduce the braking effect and even cause the brake system to fail! 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.**

#### Indicator lamp of brake system

When the vehicle is running, if the  indicator lamp comes on in red, and the ICM 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.

**Check the 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 vehicle use, the brake fluid level will slightly drop due to the worn brake linings and automatic adjustment.

If the brake fluid level drops significantly in a short period of time or drops below "MIN", it indicates that the brake system may leak.

**i NOTE**

- Be sure to read and observe the relevant warning instructions carefully before opening the hood.
- After check of the brake fluid level, if the fluid level is below "MIN", brake fluid must be added.
- If the brake system warning lamp does not go out or comes on again after the brake fluid is added, there may be a leak in the brake system, causing the brake fluid level to drop quickly, or the brake system malfunctions. In this case, do not continue to drive and contact the GAC Motor authorized shop in time for inspection.

**Adding brake fluid**

In order to ensure the normal operation of the brake system, the added brake fluid shall meet the specifications:

1. Unscrew the brake fluid reservoir cap counterclockwise.
2. Add new brake fluid to make the level reach the upper limit mark "MAX", and stop adding.
3. Tighten the brake fluid reservoir cap clockwise.

 CAUTION

- The brake fluid will corrode the paintwork of the vehicle body. Brake fluid splashed on the paint surface shall be wiped off in time.
- Using waste brake fluid or using brake fluid not applicable to the vehicle will remarkably reduce the braking effect due to incompatibility and even cause the brake system to fail.

 Warning

- **Brake fluid is toxic. It must be contained in the original sealed container, placed in a safe place, and kept out of children's contact to avoid poisoning due to accidental ingestion.**
- **Brake fluid must be stored in accordance with environmental protection laws.**

### 6.4.6 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 wore during operation!
	Open flames, sparks, uncovered lamps and smoking are prohibited in the workplace!
	Very explosive gas mixture is generated when the battery is being charged!
	Children must stay away from electrolytes and car batteries!

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 alarm lamp

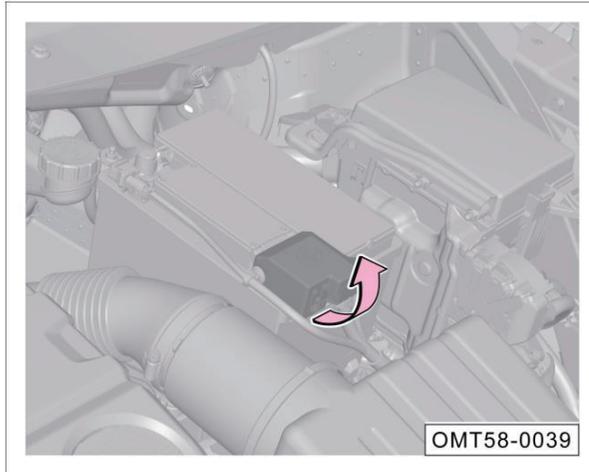
The alarm indicator lamp is used to indicate alternator failure.

When the START/STOP button is set to the "ON" position and the engine is not started, the  alarm lamp will light up, and the alarm lamp shall go out after the engine is started.

When the vehicle is running, if the alarm lamp comes on, it indicates that the generator is no longer charging the battery. In this case, please go to the GAC Motor authorized shop for inspection as soon as possible.

### Inspecting the battery

The battery must be checked according to the period specified in the Warranty and Maintenance Manual.



1. Flip up the cover of the battery positive terminal.
2. Check the connection between the battery connector and the cable for corrosion or looseness; Check the appearance of the battery for cracks, expansion, etc. If the phenomena above are found, please go to the GAC Motor authorized shop for inspection in time.
3. If the vehicle is not in use for a long period of time, check the battery condition frequently.

#### **i** NOTE

- If the battery SOC is low or the battery is damaged, making it difficult to start the vehicle, please contact the GAC Motor authorized shop to charge or replace the battery in time.
- If the battery needs to be replaced, please go to the GAC Motor authorized shop for replacement; If the battery of the wrong model is used, the vehicle may be unusable or electrical system fault may be caused due to incompatibility.

### Instructions for using the battery

After the engine is turned off, the battery will quickly discharge when electrical equipment on the car is being used:

1. Do not use electrical equipment on the car for a long time after the engine is turned off.
2. When leaving the car, make sure that the doors are closed and all electrical equipment (e.g., lamps) is turned off.

#### **👁** CAUTION

- When the engine cannot be started due to lack of battery power, try to start it through emergency start. If the engine still cannot be started, please contact the GAC Motor authorized shop for inspection.
- To avoid damage to the electrical system of the car, never connect power generation equipment such as solar panels or car 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.

### 6.5 A/C filter

#### Check and clean 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. To avoid unnecessary damage to the parts, it is recommended to go to the GAC Motor authorized shop to check and clean or replace the A/C filter.

### 6.6 Replacing bulbs

#### Instructions for replacing bulbs

All lamps of the vehicle are LED types, which cannot be disassembled or replaced separately. In case of bulb damage or function failure, please go to the GAC Motor authorized shop for inspection in time.



**Warning**

**Modifications to exterior lighting and signal devices are prohibited.**

### 6.7 Wheels



**Warning**

**Within the first 500 km, the road adhesion of new tires is unlikely to reach the best condition. Therefore, the car shall be driven carefully at a moderate speed to prevent accidents.**

- **Inadequate road adhesion of tires not subject to running-in period or excessively worn can directly affect the braking effect.**
- **If abnormal vibration or deviation of the vehicle is found during driving, stop the vehicle immediately and check whether the tire is damaged.**
- **If uneven and excessive wear of the tire is found, 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 of which the treads have been worn to the wear indicators. Otherwise, it is very easy to cause an accident, because such tires may burst during driving, causing traffic accidents and injury. 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 continuous high-speed running of the car will cause the tire to deflect, and the tire is extremely easy to overheat, which may cause tread separation or tire burst.
- Do not expose tires to chemicals, oil, grease, fuel and brake fluid.

**⚠ Warning**

- Never use old wheels and tires of unknown origin under any circumstances. Although such wheels and tires do not have visible damage, they may have been damaged. During driving, they may cause the vehicle to lose control and lead to traffic accidents.
- It is not recommended to use recycled tires. For such tires, the carcass may degrade as the service time passes, and the durability may also be restrained, impairing the driving safety.

**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.
- Keep tires off grease, oil or fuel.
- Regularly check the damage status of tires (i.e., splitting, abrasion, shedding, deformation or bulging).
- Regularly remove debris embedded in the grooves of the tire pattern.

**Instructions for storing tires**

- Before removing the tire, make a mark on the tire to indicate the rotation direction of the tire. Refit the tire according to the mark to ensure the rotation direction and the dynamic balance of the wheel are 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.

## 6. In-service maintenance

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### • **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.
- Replace at least two tires on the same axle at the same time, rather than only one tire individually.
- Do not use tires of different dimensions or types, and do not mix summer tires, all season tires and winter tires in use.
- Once wheels are installed, check whether the tightening torque of the wheel bolts ( $125 \pm 10\text{N} \cdot \text{m}$ ) meets the requirements.

### **Non-full-size spare tires**

Spare tires and standard tires are different in aspects such as structure, pattern, speed grade 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 the tire repair shop as soon as possible to replace it with a standard tire, so as to avoid the hidden safety hazards of long-term use of the spare tire.

#### **Warning**

- **The spare tire can only be used temporarily for emergency, and the maximum driving vehicle speed shall not exceed 80 km/h.**
- **The storage and service life of the spare tire is 6 years, and it is forbidden to use it beyond the time limit.**

### **Summer tires**

Summer is a rainy season. The tire tread depth directly affects the driving safety in rainy days. In summer, when the tire tread depth is less than 3 mm, there is a high risk of water slippage.

### **Winter tire**

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 approved for the vehicle and identical to the original tires in dimensions, load range and rated speed.

- Please note that the tread of winter tires shall have patterns deep enough (tread depth not less than 4 mm; otherwise, the applicability in winter will be limited).
- After installation of tires, check the tire inflation pressure.

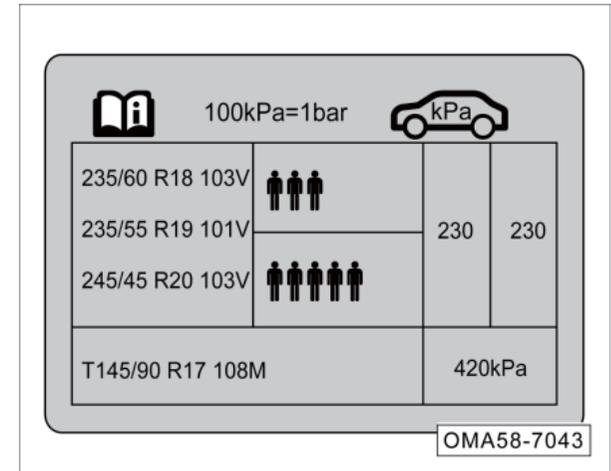
### Warning

- Winter and summer tires are designed according to their respective typical lane 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.
- If summer tires are used in severe cold conditions, cracks may appear on the tires, thereby completely damaging the tires, and causing excessive tire noise and loss of balance.

### Warning

- Winter tires may lead to decreased traction force of the vehicle on dry roads, increased road noise and shortened service life of tread. Please pay attention to the performance change of the car 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 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.

### Check tire pressure



The standard tire pressure data label of the original tire of this car is attached to the B pillar on the driver's side.

- 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.

## 6. In-service maintenance

- 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.

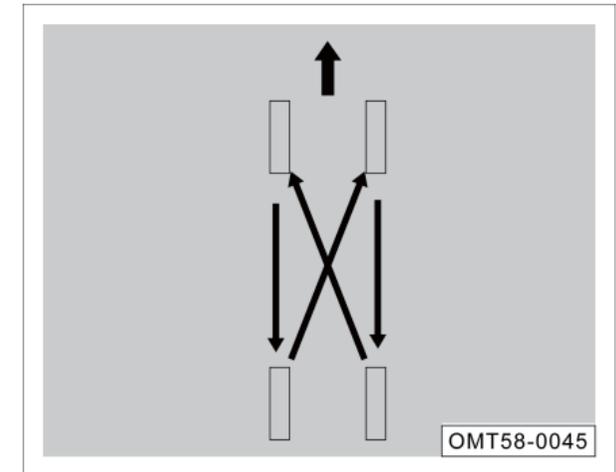
### **i** NOTE

- The current tire pressure of the wheel can be checked through the information on the instrument cluster display.
- Be sure to install the valve cap back on the valve core. The valve cap can prevent dust and moisture from entering the tire.

### **⚠** 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.**
- **Abnormal tire pressure, too low or too high, will cause early wear of tires and reduce the maneuvering stability of the vehicle.**

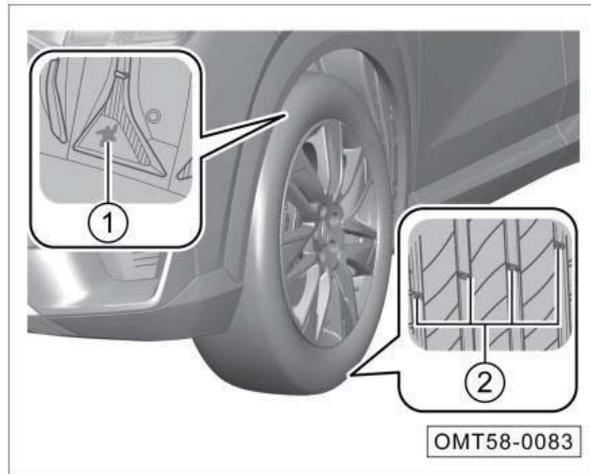
## Service life of tires



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.

### Tire 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 height of tread wear indicator ② is 1.6 mm. If the tread pattern is worn to the indicator surface, this tire can no longer be used safely and must be replaced immediately.

### Wheel balance

The wheels of the new car are already balanced. Due to various reasons, the wheels may go unbalanced during operation, 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

Wheel misalignment will cause uneven and excessive wear of the tires, affecting driving safety. If uneven and excessive wear of the tires is found, please go to the GAC Motor authorized shop for wheel alignment in time.

### 6.8 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 car. Failure to do this will adversely affect the performance and safety of the car. Moreover, operations such as full-load driving, speeding, abrupt 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 car to flick and slip. Maintain an appropriate safety distance from the vehicle in front, depress the brake pedal slightly, and pay attention to that installing tire chains on the tires can increase certain friction force, but cannot prevent sideslip.

## 6. In-service maintenance

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### NOTE

Various countries and regions have different regulations on tire chains. Before assembling tire chains, please refer to the laws and regulations of the corresponding country and region. 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.

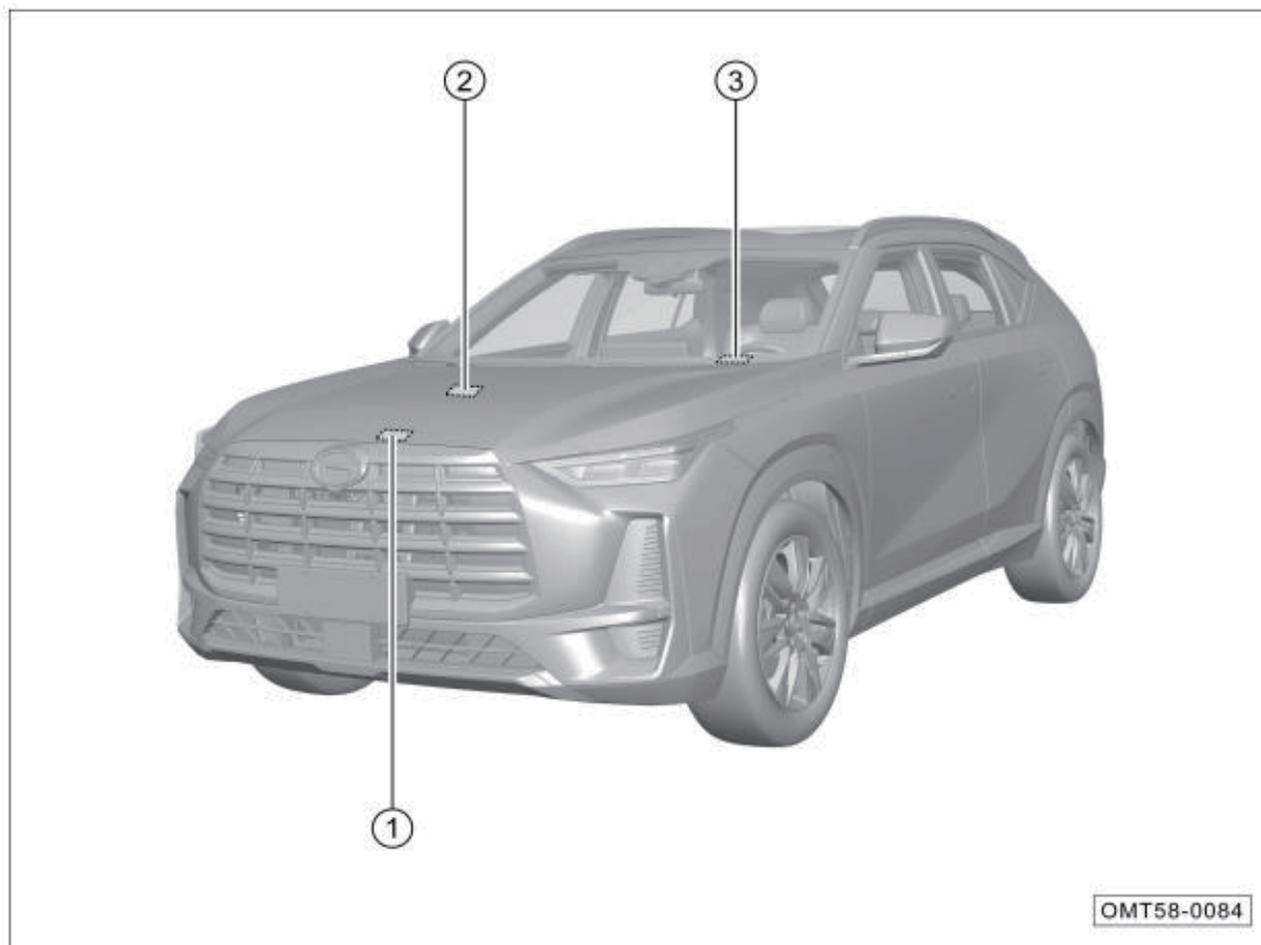
### CAUTION

- Install tire chains on the tire to ensure balanced driving in all weather conditions. It shall be borne in mind that after installation of tire chains, the car power may be insufficient. Even if the road surface is in good condition, drive carefully. When driving, do not 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 tire chains shall be consistent with those of the standard tires of the vehicle. Otherwise, the driving safety and maneuvering of the vehicle will be adversely affected.
- The tire chains must be installed on the front tires in pairs. Do not install them on the rear tires.
- Do not install tire chain on emergency spare tire. If the front tire is installed with a spare 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.

## 7.1 Identifications



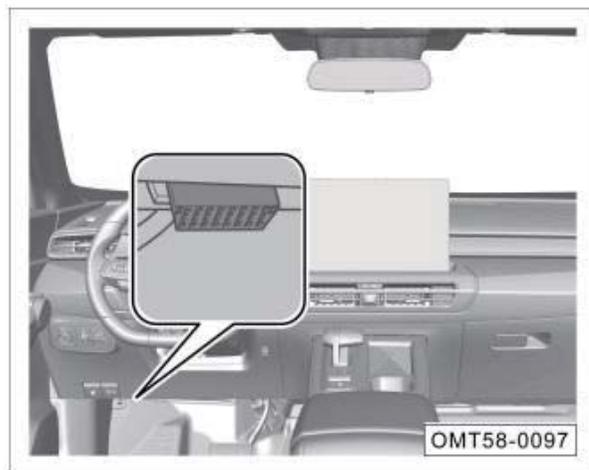
The locations of the vehicle identification number (VIN) is shown in the figure:

- ① VIN: hood
- ② VIN: right side of front compartment drip channel sheet metal
- ③ VIN: left side of instrument panel

**i** NOTE

The illustration is for reference only. For the specific location and quantity of the VIN. Please refer to the actual vehicle.

### OBD (on-board diagnostic) interface



The OBD DLC for reading the electronic VIN is located at the lower left rear of the instrument panel, and data such as the electronic VIN and vehicle status information can be read through the special diagnostic scan tool.

#### **i** NOTE

If you need to purchase a diagnostic scan tool, please go to the GAC Motor authorized shop for consultation and purchase.

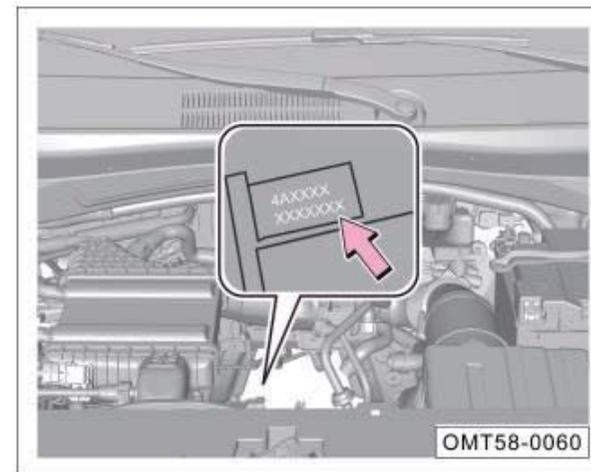
### Car nameplate

The vehicle nameplate is located on the B-pillar on the driver side of the vehicle. The vehicle nameplate information includes manufacturer, VIN, manufacture date, vehicle category and country of manufacture. The vehicle complies with all GSO regulations and national motor vehicle regulations in effect prior to the manufacture date.

#### **i** NOTE

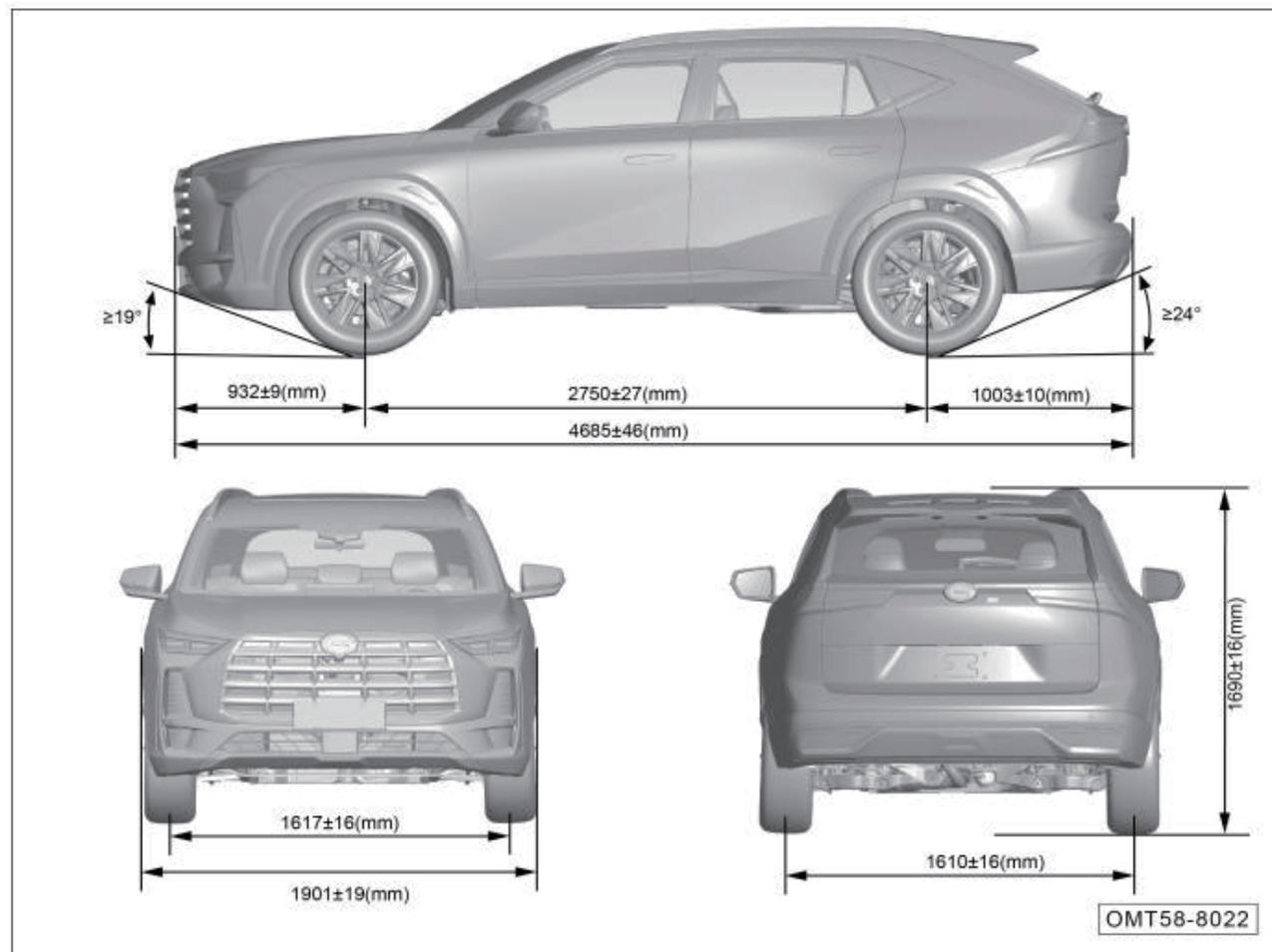
If the pasting position and content of the vehicle nameplate are different, please refer to the actual vehicle.

### Engine model and factory number



Engine model and factory number as arrowed are located on the cylinder block (above the starter).

## 7.2 Dimensions &amp; parameters of vehicle



## Dimensions

Item	Parameter		
	Numerical value	Unit	
Overall length	4685±46	mm	
Overall width	1901±19	mm	
Overall height	1690±16	mm	
Wheel base	2750±27	mm	
Wheel track	Front wheel	1617±16	mm
	Rear wheel	1610±16	
Front suspension	932±9	mm	
Rear suspension	1003±10	mm	
Approach angle (no load)	$\geq 19$	°	
Departure angle (no load)	$\geq 24$	°	

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 are not included in the overall width.

## 7. Technical data

### 7.3 Vehicle mass, engine and fluid parameters

#### Weight

Model	Kerb mass of complete car (kg)			Maximum gross mass (kg)		
	Kerb mass	Front axle load	Rear axle load	Maximum gross mass	Front axle load	Rear axle load
GAC6474ACW6A	1540±46	928±26	687±19	1915	1007	908

#### Comprehensive parameters

Item	Model parameter	Unit
	GAC6474ACW6A	
Number of occupants	5	Person
Minimum turning diameter	11.2	m
Maximum gradeability	40	%
Maximum vehicle speed	190	km/h
Fuel consumption in NEDC	7.2 (non-Chile)	L/100km
	6.6 (Chile)	L/100km

## Parameters of engine

Model	4A15J1
Arrangement type	Front mounted, transverse
Type	Gasoline engine, spark ignition, in-line, four-cylinder, four-stroke, turbocharged and intercooled, GDI, double overhead camshaft, exhaust gas turbocharging
Number of cylinders	4
Ignition order	1-3-4-2
Bore (mm)	74
Stroke (mm)	87
Displacement (mL)	1497
Compression ratio	(11.5±0.3):1
Rated power/speed (kW/(r/min))	130/5500
Maximum net power/speed (kW/(r/min))	125/5500
Maximum torque/speed (N·m/(r/min))	270/1400~4500
Maximum net torque/speed (N·m/(r/min))	250/1400~4500
Stable idle speed (r/min)	700±50
Emission level	Euro V (non-Chile)/Euro VI (Chile)

## 7. Technical data

### Specifications and capacity of fuel/oil/fluid

Item	Specifications	Capacity	
Fuel <sup>1)</sup>	Please add the fuel with the fuel grade marked at the filler	Total amount (L)	55
Engine coolant <sup>2)</sup>	DF-6, -35°C coolant	Total amount (L)	8.2±0.7
Engine oil	Oil grade: APISN/ILSACGF-5 Oil viscosity: SAE 0W-20	Total amount <sup>3)</sup> (L)	4.5
		Replace <sup>4)</sup> (L)	4.2
WDCT fluid	Shell Spirax S5 DCT 12 Plus	Total amount <sup>5)</sup> (L)	6.9
		Replace <sup>5)</sup> (L)	5±0.2
CAC coolant	DF-6, -35°C coolant	Total amount (L)	3.1±0.7
Brake fluid	DOT4	Total amount (L)	0.78±0.15
Windshield washer fluid	A-30	Total amount (L)	2.5
A/C refrigerant	HFC-134a	Total amount (g)	500±20 <sup>6)</sup>
			530±20 <sup>7)</sup>

- Notes:
- 1) Long-term use of fuels with a 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 reservoir and the residual coolant in the engine.
  - 3) Capacity of the overhauled engine assembly.
  - 4) Including the replacement of oil filter.
  - 5) In non-special cases (such as transmission fluid leakage), it is recommended to fill the fluid according to the principle of "adding as much as draining".
  - 6) Applicable to Asia and Africa.
  - 7) Applicable to other regions except Asia and Africa.

## 7.4 Specification parameters of transmission, chassis and lamps

### Transmission parameters

Model	7WF25G
Type	WDCT
Drive	Two-wheel drive
Final ratio	4.389 (5th, 1st, 2nd, 4th and R gears)
	2.724 (7th, 3rd and 6th gears)
1st gear	3.846
2nd gear	2.308
3rd gear	2.500
4th gear	1.140
5th gear	0.911
6th gear	1.180
7th gear	0.946
Reverse gear	3.491

### Suspension

Type	Front suspension	Rear suspension
	McPherson independent suspension	Multi-link independent suspension

### Steering gear

Type	Rack and pinion steering
Power steering type	Electric power

### Wheels and tires

Designation	Parameter	
Rim specifications	7J×18*, 7.5J×19*	
Tire specifications	235/60R18*, 235/55R19*	
Tire pressure	Front wheel	230kPa
	Rear wheel	230kPa
Specifications of spare tire	T145/90R17	
Pressure of spare tire	420kPa	
Wheel alignment parameters	Front wheel toe-in	4'±3'
	Front wheel camber	-16'±30'
	Kingpin caster angle of front wheel	7°12'±45'
	Kingpin inclination angle of front wheel	12°59'±45'
	Rear wheel toe-in	2'±3'
	Rear wheel camber	-55'±30'
Wheel dynamic balance parameters	Inside of front wheel	<8g
	Outside of front wheel	<8g
	Inside of rear wheel	<8g
	Outside of rear wheel	<8g

## 7. Technical data

### Brake system parameters

Designation	Item	Parameter
Brake	Type	X-type double circuit, hydraulic brake, vacuum booster
	Front wheel	(Disc brake)
	Rear wheel	(Disc brake)
	Parking brake	Electric park brake (EPB)
Free travel of brake pedal	Travel	106±3mm
	Free travel	≤5.6mm
Technical parameters of brake linings	Wear limit of front wheel brake lining (excluding the backplate of brake lining)	9mm
	Wear limit of rear wheel brake lining (excluding the backplate of brake lining)	7mm

### Battery

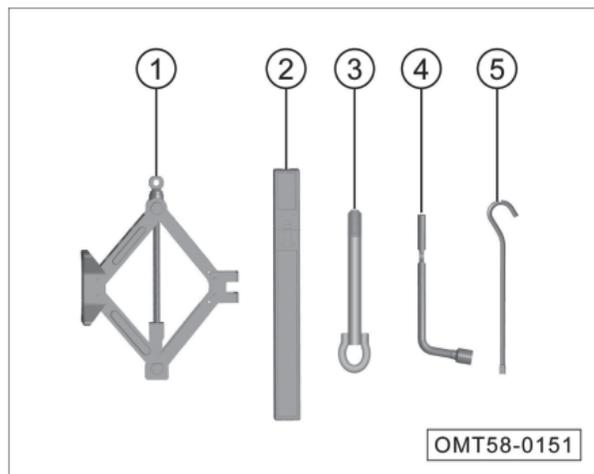
	Item	Parameter
Parameter	Rated voltage	12V
	Capacity at 20 hr	60Ah
	Low temperature start current (EN)	660A

### Lamp

All lamps of the vehicle are LED types. Please go to the GAC Motor authorized shop for replacement if necessary.

## 8.1 Driver's tools and spare tire

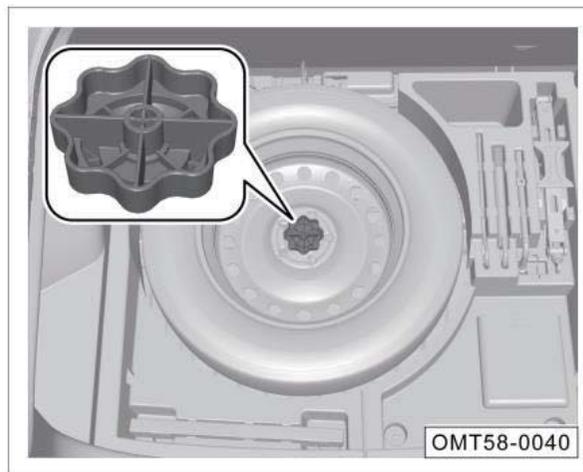
### Driver's tools



The following driver's tools are provided in the trunk. After use, they should 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

### Spare tire



Remove the spare tire:

1. Open the liftgate.
2. Lift up the trunk carpet.
3. Unscrew the central handwheel of the spare tire counterclockwise and take out the spare tire.

#### **i** NOTE

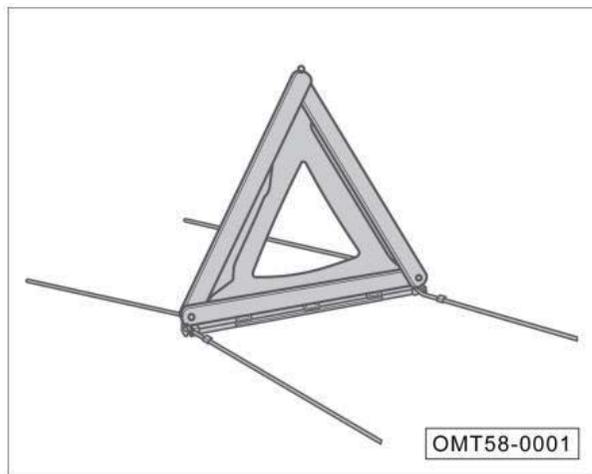
The spare tire has been inflated, and the air pressure shall be checked regularly to ensure that it is at the specified maximum air pressure, and multiple inspections shall be carried out within 1 year.

#### **⚠** 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 1 spare tire at the same time.**
- **It is forbidden to use the spare tire that has been damaged or worn to the limit.**
- **The storage and service life of the spare tire is 6 years, and it is forbidden to use it beyond the time limit. • After installing the spare tire, check the tire pressure as soon as possible to keep it within the specified range.**
- **The maximum speed of the spare tire shall not exceed 80 km/h, and abrupt acceleration and emergency braking shall be avoided.**

## 8. Accident handling

### 8.2 Use of warning triangle



1. Open the liftgate.
2. Lift up the trunk floor.
3. Take out the warning triangle and unfold it for use.

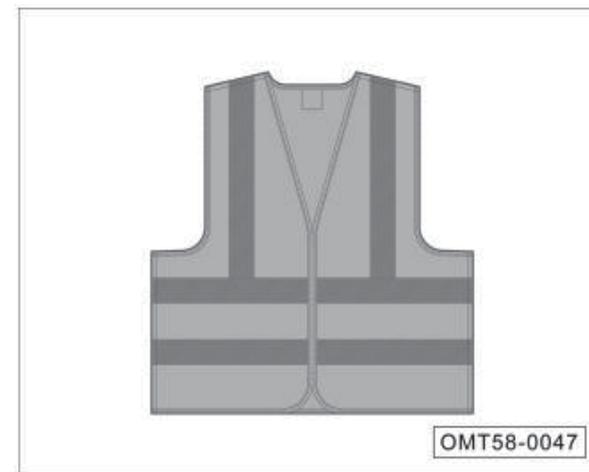
### Placement distance

Ordinary highway		Expressway
Daytime	Night	
≥50m	≥80m	≥150m



The data above is for reference only. Please place the warning triangle at the distance specified by traffic regulations.

### 8.3 Use of reflective vest



- If the car needs to stop due to an accident or other failures, take out the reflective vest from the glove box and wear it neatly before getting off the car to check and deal with the car failure.

**i NOTE**

- When handling vehicle accidents, no matter what kind of lighting conditions, it is necessary to wear a reflective vest as required to attract the attention of passers-by or other vehicle drivers.
- 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.

**8.4 Replacing flat tire****Preparations**

1. Apply the parking brake.
2. Set the gearshift lever to "P" gear.
3. Set the START/STOP button to the "OFF" position and turn on the hazard warning lamp.
4. Place a warning triangle at a suitable position behind the vehicle.
5. Find a suitable object to wedge the wheel in the diagonal position of the one to be replaced to prevent the vehicle from moving.
6. 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 place.**

**Loosen the wheel bolts**

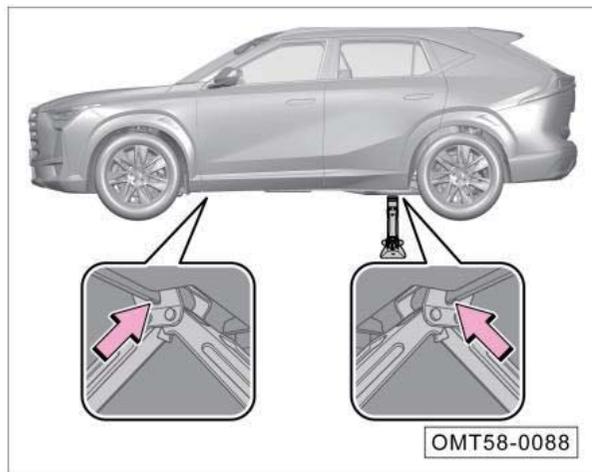
Set the wheel bolt removal wrench firmly on the wheel bolt, and loosen the wheel bolts counterclockwise.

**👁 CAUTION**

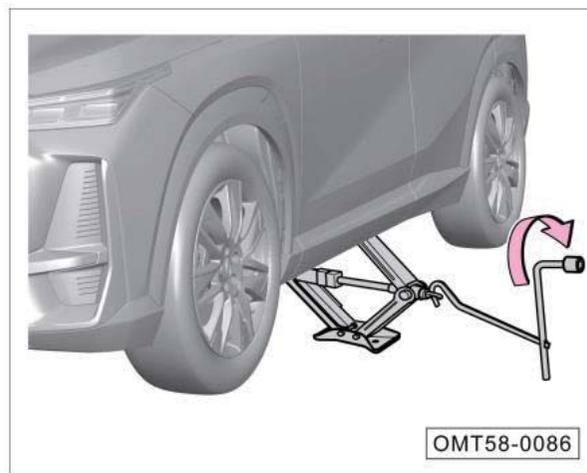
Loosen the wheel bolts just one turn before lifting the car. After lifting the car, unscrew the wheel bolts completely, and then remove the flat tire.

## 8. Accident handling

### Lift the vehicle



1. Place the jack directly under the spine closest to the flat tire.
2. Extend the jack high to ensure that the groove of the jack can engage with the spine.
3. Check whether the jack is stable and tightly attached to the ground.



4. Assemble the wheel bolt removal wrench, the special wrench for jack and the jack.
5. Extend the jack clockwise to lift the vehicle and lift the tire off the ground.

### Warning

Improper use of jacks can cause serious injury.

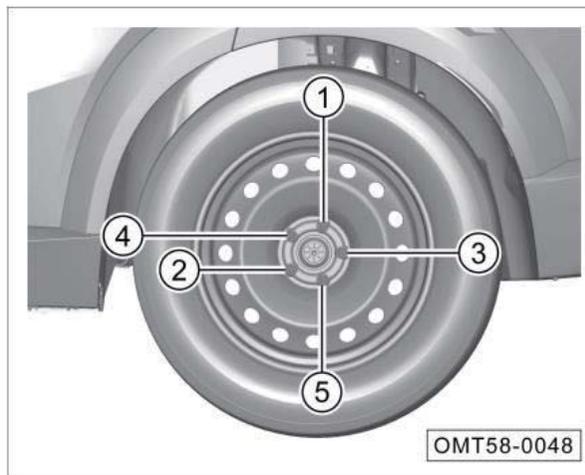
- The jack must be used on a hard and flat ground or a hard pad (not thicker than 1 cm) may be placed under the jack as needed.
- Strictly observe the precautions for jack operation.
- If the vehicle tows a trailer, the trailer must be separated from the vehicle.
- Observe the status of the vehicle continuously 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 supplied with the vehicle can only be used to lift the vehicle, and cannot be used to lift other heavy objects or vehicles.
- When the jack is in use, do not start the engine; otherwise accidents will occur.
- When lifting the vehicle with a jack, remember not to place any part of your body under the vehicle to avoid accidents.
- If it is really necessary to work under the vehicle, proper protective support must be placed under the vehicle.

**Removing flat tire**

1. With the vehicle in the lifted status, unscrew the loosened wheel bolt with the wheel bolt removal wrench.
2. Remove the flat tire.

**Install the spare tire**

1. Install the spare tire to the vehicle.
2. Install all wheel bolts, and pre-tighten them with the wheel bolt removal wrench in the order of ① ~ ⑤ in the figure.
3. Give a verbal alert to confirm that nobody is around the vehicle, and then rotate the jack wrench counterclockwise to lower the vehicle.
4. Tighten all wheel bolts using the wheel bolt removal wrench.

**NOTE**

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**

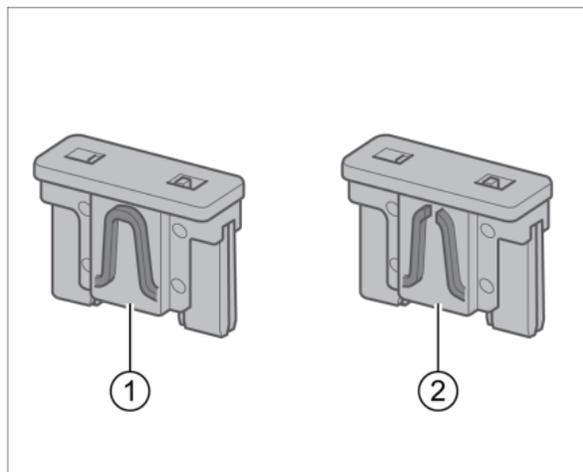
After installing the wheels, go to GAC Motor authorized shop in time to check the tightening torque of the wheel bolts ( $125 \pm 10$  N·m); otherwise the bolts may be loose when the vehicle is driving, which is very likely to cause traffic accidents.

**Warning**

- The threads on wheel bolts and hubs must be kept clean so that the bolts can be easily screwed and free of attachment such as grease.
- During replacement of tires, if the bolts are rusty or difficult to screw, the bolts must be replaced and the threaded holes must be cleaned.
- When the spare tire is not used, it must be securely fixed in the place where the spare tire is mounted.

### 8.5 Inspecting fuse

If one of electric consumers fails to work, it may be caused by a blown fuse. If this happens, please contact the GAC Motor authorized shop for inspection in time.



① Normal fuse

② Blown fuse

**CAUTION**

- If you need to replace fuse, please go to GAC Motor authorized shop.

**Warning**

- Do not modify or add equipment to the vehicle without authorization to avoid damage to the vehicle electric consumers or serious accidents such as fire.
- Do not use a fuse with rated current higher than the specified value, otherwise other components of the electrical system will be damaged.
- The use of inappropriate or repaired fuse will cause a short circuit or even a fire.
- The color and identification of the replaced fuse must be exactly the same as the original fuse.
- Never replace a fuse with metal sheets, clips, etc.
- The PDU must be kept clean inside. Pay attention to protection against moisture.

## 8.6 Emergency start

### Jumper cable

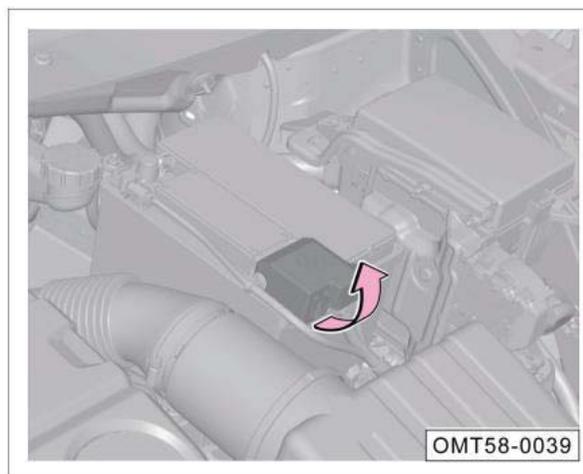
If the engine fails to be started due to low battery SOC, the engine can be started by connecting the battery of another vehicle through the jumper cable.

#### CAUTION

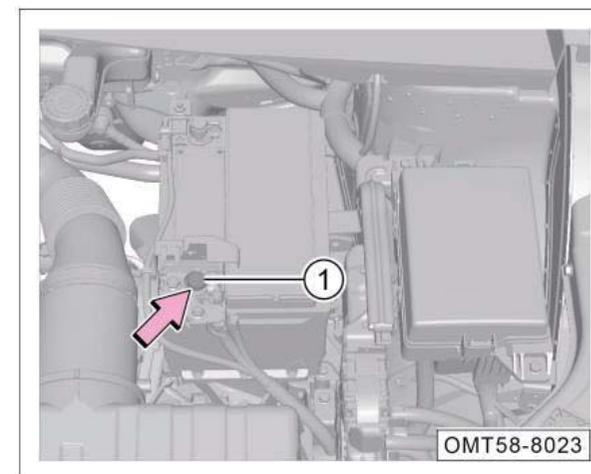
Before performing jumper cable operation, be sure to turn off all electric consumers of the vehicle with low battery SOC, such as headlamp, HVAC, A/V system, etc.

#### Warning

- **The front compartment is a high-risk area. Improper operation can easily cause casualties.**
- **Be sure to carefully read and observe the safety warning instructions related to battery operation before starting operation on the battery.**



1. Open the engine hood and lift up the battery positive terminal cover in the direction of the arrow.



2. Connect the clip of the red positive jumper cable to the battery positive terminal ① of the vehicle with low battery SOC, and connect the clip at the other end to the battery positive terminal of the other vehicle; Connect the clip of the black negative jumper cable to the battery negative terminal of the other vehicle, and connect the clip at the other end to the cylinder block or the metal part firmly connected to the cylinder block on the vehicle with low battery SOC.

## 8. Accident handling

3. Start the other vehicle for power supply, let it run at idle speed, and then start the engine of the vehicle with low battery SOC until the engine runs smoothly.
4. After the engine runs smoothly, remove the jumper cable in the reverse order.

### CAUTION

- When connecting the batteries of two cars, 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

**Improper use of jumper cables may cause battery explosion and serious injury.**

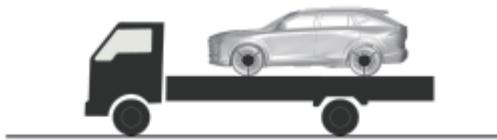
- The voltage of the battery for power supply must be the same as that of the battery with low SOC, and the capacity of both batteries must be the same as possible. Otherwise, it may cause an explosion.
- Never expose the battery to an open flame, for fear of an explosion.
- Never connect the negative cable directly to the negative terminal of a battery with low SOC. 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.
- Never connect the negative cable to a fuel system component or a brake pipeline. Never lean over the battery during operation. Be careful not to get burned by acid.

### Warning

- Be sure to turn off the headlamps before removing the jumper cables.
- 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 in the reverse order with the engine running.
- The jumper cable should be properly connected to the positive and negative terminals instead of other positions of the battery as mentioned above, otherwise it may cause blown fuse or failure of some vehicle functions, and GAC Motor will not assume any responsibility for such damage.

## 8.7 Vehicle towing

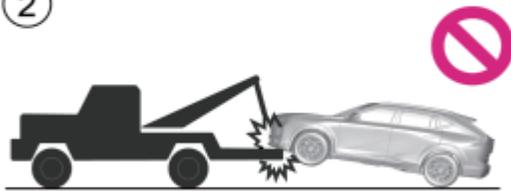
①



④



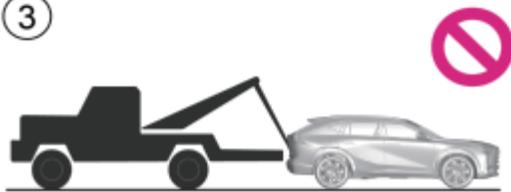
②



⑤



③

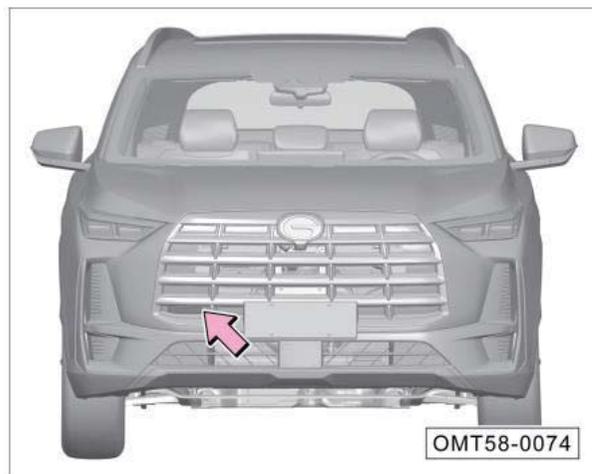


When the vehicle fails to be started normally due to fault or accident, the vehicle shall be towed away from the site by a rollback tow truck as shown in Figure ①.

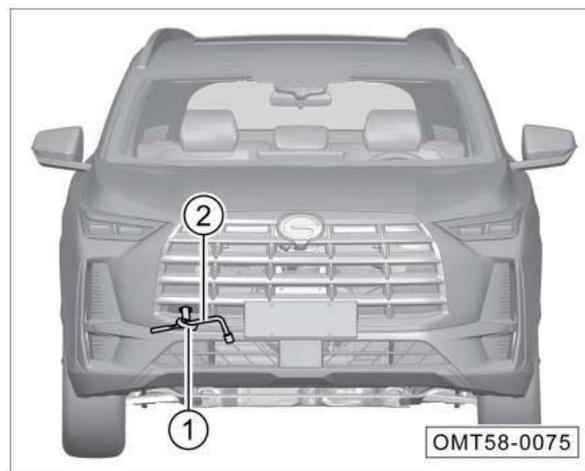
 CAUTION

- If the vehicle needs to be towed, it shall be towed by the GAC Motor authorized shop or a professional towing company.
- If you cannot use a rollback tow truck to tow the vehicle normally, you can use rigid connection to tow the vehicle to a safe area urgently and wait for rescue.
- When rigid connection is used for towing, long distance shall be avoided and the vehicle speed shall not exceed 5 km/h.
- The vehicle can only be towed away from the site after ensuring that there is no safety risk.

### Install a towing hook



1. Pry off the towing hook cover in the arrowed position using a slotted screwdriver wrapped with a cloth.



2. Take out the towing hook ① and wheel bolt removal wrench ② from the driver's tools in the trunk.
3. Screw the towing hook ① clockwise into the threaded hole.
4. 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 threaded 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.
- For the towed vehicle, the gearshift lever must be switched to the "N" gear.
- For the towed vehicle, set the 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 car 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.

### 8.8 Getting out of a trap

If the car is stuck on a soft road such as sandy, muddy or snowy road, follow the steps below to get out of the pit:

1. Observe the areas in front of and behind the car to ensure that there are no obstacles.
2. Turn the steering wheel left and 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 car slowly to get the car out of the pit.
5. If the car still can not get out of the pit after a few attempts, it is required to have a tow truck for rescue.

#### **i** NOTE

In the acceleration process, human assistance can be provided to push the car from the front and rear for driving the car out of the pit.

This manual describes related information of EMPOW entire series, including their configuration, functions, performance parameters and product schematic diagrams. However, the actual configuration and functions of the vehicles are subject to the specific vehicle delivered, and the vehicle appearance/interior trim drawings in this manual are for reference only. If there is any difference between the schematic diagrams and the specific vehicle delivered, the actual product shall prevail.

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