

# **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. This manual allows you to fully understand the operation methods and precautions of the vehicle. Proper operation of the vehicle can improve driving safety and prolong the service life of the vehicle.

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

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

In case of any doubts about this manual, please contact a 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 GAC Motor. Have a nice drive!

GAC Motor Co., Ltd.

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

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

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

The safety of you and the passengers is Safety instructions are available in many forms, including:

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



Very important instructions of which nonobservance can cause casualties.

Important instructions of which nonobservance can cause damage to the vehicle.

General instructions of which nonobservance could not cause injuries.

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

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#### **♦** Fasten the seat belt correctly

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

#### ◆ Child safety

Do not leave children in an unattended vehicle, as injury or even death may occur when they trigger one or multiple control devices accidentally, when the vehicle is moved accidentally and collides with another object due to their mis-operation, or when the ambient temperature makes the temperature inside the vehicle become extreme. Children may accidentally operate the vehicle, causing it to move and potentially resulting in injury or death. Additionally, depending on ambient temperature changes, extreme temperatures may be reached inside the vehicle, resulting in injury or death.

#### ◆ Protect all children

Children aged 12 or under should be properly restrained in the rear seats rather than the front seats. For infants and young children, child safety seat should be used. For older children, child safety seat and three-point seat belt should be used until they are sure they can use seat belt correctly (without seat).

#### **♦** Beware of the danger of airbags

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

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

#### **♦** Never drive after drinking

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

#### **◆** Abide by traffic regulations

Limit vehicle speed, avoid speeding or overloading, and pay attention to yielding to pedestrians.

#### **♦**Pay attention to driving safety

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

#### **♦** Control the vehicle speed

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

#### ◆ Perform regular maintenance

A burst tire or mechanical failure can pose serious risks. To minimize the chances of such issues, please regularly check tire pressure and condition, and perform maintenance as outlined in the *Warranty and Maintenance Manual*.

#### **Event data recorder (EDR)**

This vehicle is equipped with an event data recorder (EDR). The main function of EDR is to record data in the event of certain collisions (such as airbag deployment or colliding with a barrier), so as to help the understanding of 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.

#### i 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.

#### Potential usage of the EDR data

The data recorded by the EDR conduces to a better understanding of the situation in the event of a collision and personal injury, and are used to assist accident analysis.

GAC Motor Co., Ltd. will not disclose the data recorded in the EDR to third parties except:

- Reaching an agreement with the owner (or the lessee when the vehicle is rent).
- At the official request of the police, courts or government agencies.
- If necessary, the data will be used for research on vehicle safety performance.

#### How to obtain an EDR data reading tool

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

#### How to extract data from the EDR control unit

Special technical device is required for EDR data extraction. For more information, please visit GAC Motor authorized shop for consultation.

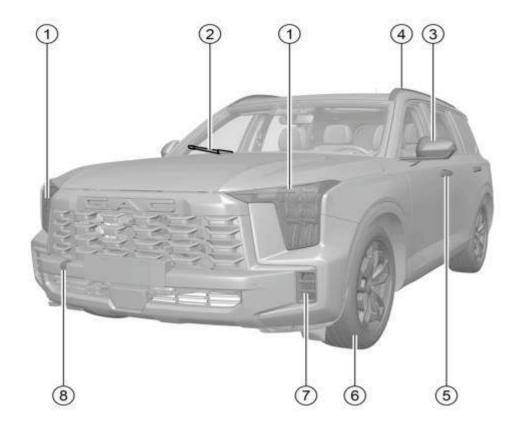
# Unlocked event storage overwriting mechanism and over-writable event types

The current event data can overwrite the preceding unlocked event data. For locked event data, it cannot be overwritten by data from subsequent events;

Over-writable events (unlocked events) include:

- Non-deployment of the irreversible restraint device;
- The vehicle speed change in the direction of the x axis within 150 ms is less than 25 km/h.

#### 2.1 Exterior

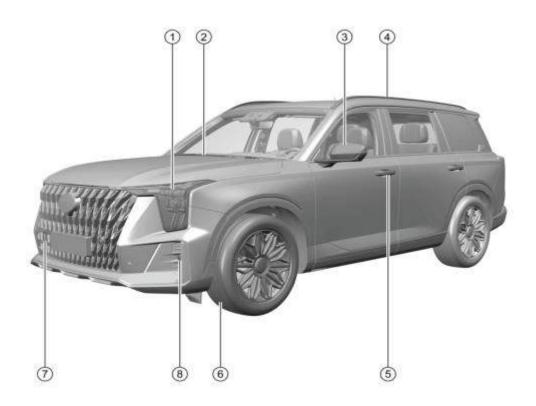


#### Traveler appearance model

- ① Front Combination Lamp
- Turn on the light => See page 66
- Replace the bulb => See page 227
- ② Front wiper

Replacing front windshield wiper blades =>See page 221

- ③ Exterior rearview mirror
- Side turn signal lamp => See page 67
- 4 Roof rack => See page 98
- 5 Door lock hole => See page 49
- 6 Wheel => See page 227
- 7 Front fog lamp
- 8 Front fog lamp traction => See page 255

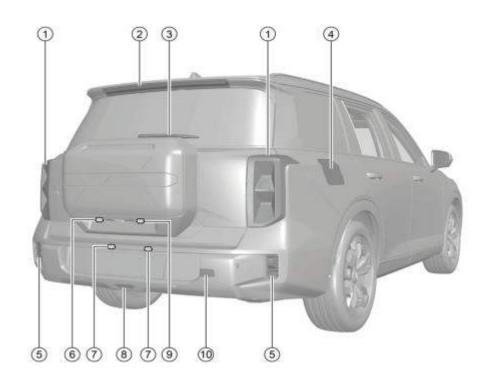


#### Dragon scale wing appearance

- ① Front combination lamp
- Turn on the light => See page 66
- Replace the bulb => See page 227
- ② Front wiper

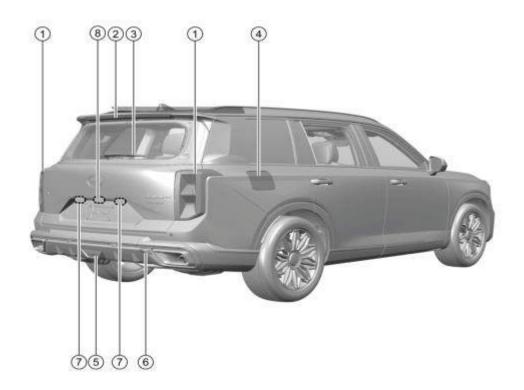
Replacing front windshield wiper blades =>See page 221

- ③ Exterior rearview mirror
- Side turn signal lamp => See page 67
- 4 Roof rack => See page 98
- 5 Door lock hole => See page 49
- 6 Wheel => See page 227
- 7 Front towing hook => See page 255
- 8 Front fog lamp\*



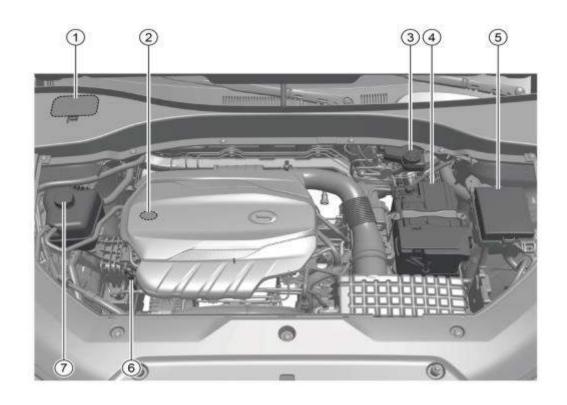
#### Traveler appearance model

- ① Rear combination lamp
- ② High-mounted stop lamp
- ③ Rear wiper
- Replace rear wiper blade => See page 222
- 4 Fuel tank flap => See page 212
- 5 Rear towing hook => See page 255
- 6 Backpack opening button => See page 57
- ① License plate lamp
- Reversing lamp (right side)/ Rear fog lamp (left side)



#### Dragon scale wing appearance

- ① Rear combination lamp
- ② High-mounted stop lamp
- ③ Rear wiper
- Replace rear wiper blade => See page 222
- 4 Fuel tank flap => See page 212
- ⑤ Reversing lamp (right side)/ rear fog lamp (left side)
- ⑥ Rear towing hook => See page 255
- 7 License plate lamp
- 8 Lifegate opening button => See page 54



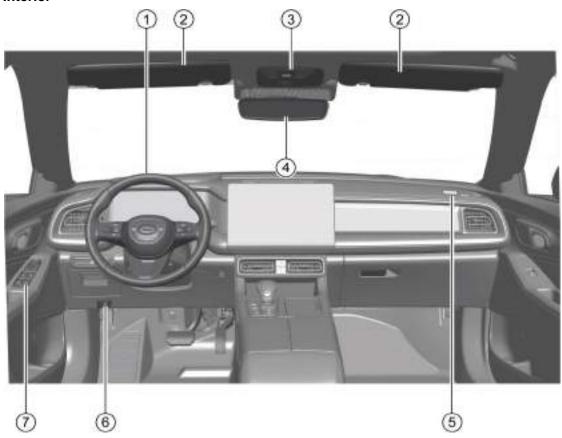
#### **Engine compartment**

- ① Windshield washer fluid filler cap =>See page 220
- ③ Oil filler cap => See page 217
- 4 Brake fluid reservoir => See page 223
- 4 Battery =>See page 225
- 5 Engine electrical box => See page 251
- 6 Oil dipstick =>See page 216
- 7 Expansion coolant tank =>See page 218

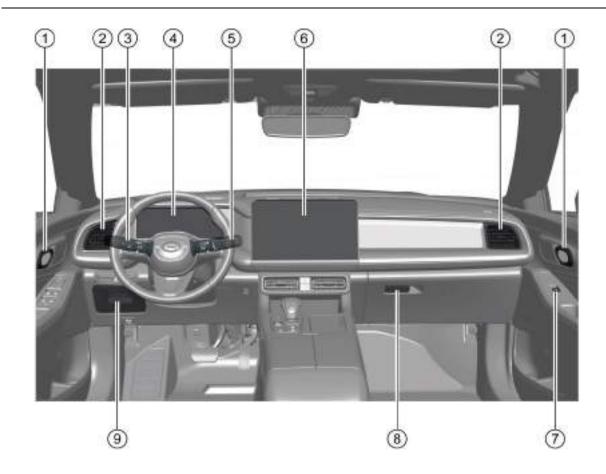
#### i NOTE

The picture shows the rear upper guard panel\* of the engine room has been removed.

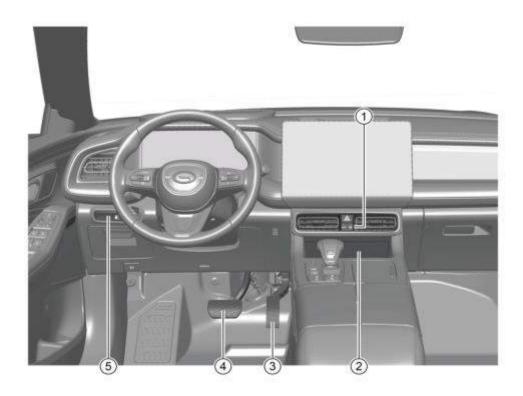
#### 2.2 Interior



- ① Steering wheel => See page 36
- Buttons on the steering wheel => See page 37
- Driver's frontal airbag => See page 21
- Paddle shifter\*=>See page 120
- 2 Sun visor => See page 81
- ③ Dome lamp => See page 72
- Electric sunroof control button => See page 61
- Electric sunshade button => See page 61
- Emergency rescue service button\* => See page 113
- Spectacle case => See page 91
- 4 Interior rearview mirror => See page 77
- ⑤ Front passenger's frontal airbag => See page 21
- ⑤ Engine compartment opening handle/release handle => See page 58
- 7 Driver's side electric window button =>See page 59
- Central locking button =>See page 48
- Exterior rearview mirror adjusting button => See page 78
- Exterior rearview mirror folding button => See page 79



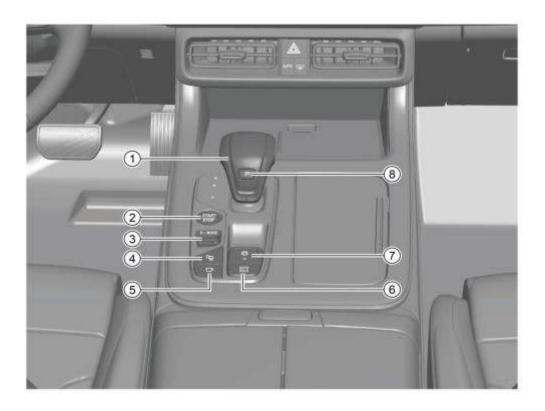
- ① Handle inside the door => See page 48
- ② A/C air outlet => See page 106
- 3 Lamplight combination switch => See page 66
- 4 Instrument cluster module/ICM => See page 38
- Indicator lamp => See page 39
- (5) Wiper combination switch => See page 75
- 6 AV system display => See page 108
- 7 Passenger side electric window button => See page 60
- Storage box on lower guard plate of cab => See page 89
- Instrument panel electrical box => See page 251



- ① A/C control button => See page 106
- Hazard warning lamp switch button => See page 71
- ② Instrument panel storage box => See page 91
- Mobile phone wireless charging area\* => See page
   95
- ③ Accelerator pedal
- 4 Brake pedal

Instrument left switch group:

- Manual headlamp adjusting knob\* =>See page 70
- Liftgate opening button => See page 54
- Fuel tank cap opening button => See page 212



- ① Gearshift lever => See page 118
- ② START/STOP button => See page 115
- ③ Driving mode toggle switch => See page 119
- 4 Fusion parking system button\* =>See page 193
- 5 Around view parking system button => See page 187
- ⑥ AUTO HOLD button => See page 126

Electronic parking brake (EPB) button => See page 124

8"P" gear button=>See page 118

#### 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.

#### i NOTE

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

### The following inspections must be carried out before driving:

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

#### **⚠** WARNING

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

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

#### **CAUTION**

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

# 3.1.2 Correct sitting posture of the driver and passengers

#### Correct sitting posture of the driver

The driver's sitting posture directly affects his/her fatigue level and driving safety. Before driving, the driver shall carry out the following operations:

- 1. Sit up straight and adjust the seat back to a 2. suitable position so that your back fits completely the seat back.
- 2. Adjust the seat position so that all pedals can 3. be operated effectively with slightly-bent legs.
- Correctly adjust the seat headrest. => See 4.
- Fasten the seat belt correctly. => See page 5.
- 5. Adjust the position of the steering wheel. => See page 36

#### **⚠** WARNING

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

#### **Correct sitting posture of the passengers**

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

- 1. Sit up straightly and adjust the headrest of the seat correctly. => See page 81
- 2. Adjust the distance between the seat and the instrument panel as demanded (for front passenger).
- Adjust the seat back until the back fits completely the seat back (for front passenger).
- 4. Fasten the seat belt correctly. => See page 18
- 5. Place both feet on the floor (for every passenger).
- 6. Use appropriate child safety seat in accordance with applicable regulations for children. => See page 28

#### **⚠** WARNING

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

#### 3.2 Seat belt

# 3.2.1 Why must you fasten the seat belt Protection for the driver and passengers from seat belts



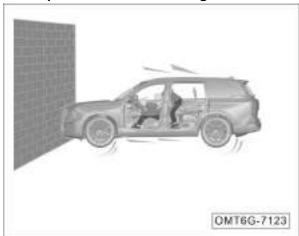
In the event of a vehicle collision, the seat belt, if fastened correctly, can restrain the driver and passengers in a proper position and slow down the inertia of their forward movement, thus preventing them from being thrown forward, and at the same time allow airbags to give them the best protection,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

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

#### **∴**WARNING

Airbags cannot replace seat belts. Regardless of the availability of airbags, the seat belts should be fastened correctly.

#### Consequences of not fastening the seat belt



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



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



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

#### 3.2.2 Seat belt

Seat belt indicator lamp

: Driver's seat belt indicator lamp

\$\\\\\_2\$: Front passenger's seat belt indicator lamp
The following alarms will be triggered when the
ENGINE START/STOP button is set to the "ON"
gear:

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

#### CAUTION

- Before driving, please check whether there are any heavy objects on the front passenger's seat to prevent the system from mistakenly determining that the seat is occupied and issuing a false alarm.
- If the alarm remains on after the seat belt is fastened correctly, it means that the seat belt doesn't work properly. In that case, please contact a GAC Motor authorized shop for inspect and repair in time.

#### **⚠** WARNING

It is strictly prohibited to use seat belt lock tongue substitutes to insert the buckle to eliminate the alarm of not fastening the seat belt.

# 為為本/ 為為 \*: 2nd-row seat belt indicator lamp

If a 2nd-row seat belt indicator lamp comes on in white, it indicates that the seat belt is fastened, and if the indicator lamp comes on in red, it indicates that the seat belt is not fastened or the seat belt system doesn't work properly. If the indicator lamp still comes on in red after the seat belt is fastened correctly, it is possible that the seat belt doesn't work properly. In that case, please go to a GAC Motor authorized shop for inspect and repair in time.

The 2nd-row seat belt indicator lamp will be turned on for a while and then turned off. However, it will light up again under the following conditions:

- The 2nd-row passenger does not fasten the seat belt when the vehicle starts.
- The 2nd-row passenger does not fasten the seat belt when the rear door is opened/closed.
- The 2nd-row passenger fastens or unfastens the seat belt.

#### \* Rear seat belt indicator lamp

If a rear seat belt indicator lamp comes on in white, it indicates that the seat belt is fastened, and if the indicator lamp comes on in red, it indicates that the seat belt is not fastened or the seat belt system doesn't work properly. If the indicator lamp still comes on in red after the seat belt is fastened correctly, it is possible that the seat belt doesn't work properly. In that case, please go to a GAC Motor authorized shop for inspect and repair in time. The rear seat belt indicator lamp will be turned on for a while and then turned off. However, it will light up again under the following conditions:

- The rear seat passenger does not fasten the seat belt when the vehicle starts.
- The rear seat passenger does not fasten the seat belt when the rear door is opened/closed.
- The rear seat 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 and passengers and improve the protection performance.

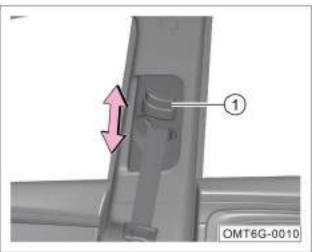
- Before the collision, the seat belt pretensioner and load limiter can restrain the driver and passengers and enable them to maintain a correct sitting posture to prevent the body from leaning forward.
- In the event of a severe collision where the triggering condition is reached, the seat belt pretensioner and load limiter will be triggered, driving the seat belt webbing to be quickly retracted and tensioned.

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

#### **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, and in this case, the SRS indicator lamp stays on, please contact the GAC Motor authorized shop for replacement.

## Adjusting the height of the shoulder seat belt (only the front seat)



- Moving up: Grasp the guide to unlock the switch ① and move it up to adjust the shoulder seat belt to the appropriate height.
- Moving down: Press the guide to unlock the switch ① and move it down to adjust the shoulder seat belt to the appropriate height.
- After the adjustment, check whether the guide is firmly locked.

#### Fastening the front seat belt



- Maintain correct sitting posture. => See page
   13
- 2. Pull out the seat belt slowly at a uniform speed, insert the lock tongue into the corresponding buckle until a click sound is heard.
- Pull the seat belt lock tongue and confirm that the seat belt lock tongue is properly locked.

#### i NOTE

The fastening methods for the 2nd-row seat belt and rear seat belt are the same, and the driver is responsible for reminding passengers to fasten the seat belts correctly.



When fastening the 2nd row seat belt/rear seat belt, pull out the clip from the holder in the trim panel before moving out the webbing to slide out of the holder, and then pulling the seat belt for fastening, so as to avoid damaging the holder when pulling the seat belt.

#### Unfastening the seat belt



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

# Pregnant women must fasten the seat belts correctly



How does a pregnant woman correctly fasten the seat belt?

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

#### **∆**WARNING

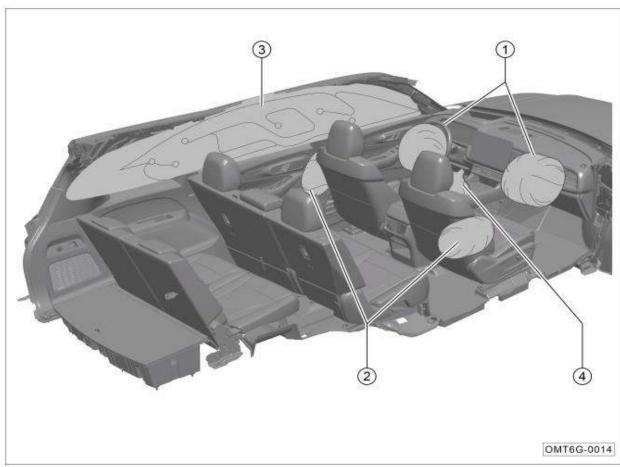
To reduce the risk of injury during emergency braking or accidents, please observe the following precautions:

- Before driving, make sure that all occupants have properly fastened the seat belts.
- Each seat belt is for one person only. Do not share a seat belt with other persons (including children).
- Do not recline the front seat back excessively for comfort.
- Do not put the shoulder seat 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 sides.
- Never unfasten the seat belt before the vehicle comes to a complete stop.

#### **∧**WARNING

- Please do not change or disassemble the seat belt without authorization, otherwise it may affect the protective effect of the seat belt on you.
- If the seat belt has burrs, contamination, or damage, it must be replaced in a timely manner.
- A sponge dipped in neutral soapy water can be used to wipe the seat belt. After wiping, place the seat belt in a cool and dry place before use. But the seat belt can only be cleaned in the car and cannot be disassembled at will.
- When not in use, the seat belt should be fully retracted and should not be left in a loose hanging state.

#### 3.3 Supplemental restraint system (SRS)



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

- Front seat frontal airbag
- ② Front seat side airbag
- 3 Side curtain airbag
- ④ Driver's knee airbag\*

#### **∆**WARNING

- Never attempt to repair, adjust or modify the airbags.
- 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.
- If there is a fault supplemental restraint system/SRS, please contact GAC Motor authorized shop for inspect and repair. Otherwise, the system may not trigger or may trigger airbag abnormally when the vehicle collides.

#### Supplemental restraint system (SRS) indicator Front seat frontal airbag lamp

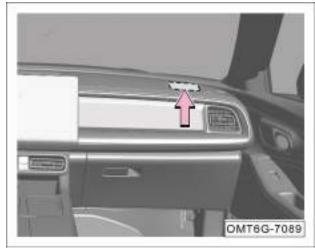
With the vehicle power supply button set to the "ON" position, the indicator lamp \* will be on for a few seconds and turned off after the system completes self-test.

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

- 1. After the vehicle power is switched to the "ON" gear, indicator lamp does not come on.
- 2. After the vehicle power is switched to the "ON" gear, the system will not turn off after completing self-test.
- After the vehicle power is switched to the "ON" gear, indicator lamp goes out and then come on.
- 4. The indicator lamp is turned on or flashing while the vehicle is running.



The driver's frontal airbag is installed inside the steering wheel (the shaded area) marked with "AIRBAG".



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

In the event of a severe frontal collision where the triggering condition is met, the frontal airbags 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.

#### **∧**WARNING

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

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

- The vehicle power supply is set to "ACC" or "OFF" gear.
- A minor frontal collision occurs.
- A side collision occurs.
- A rear collision occurs.
- Rollover.
- Other special circumstances occur.

#### i NOTE

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

#### Driver's knee airbag\*



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

The driver's knee airbag may not be deployed in Front seat side airbag the following situations:

- The vehicle power supply is set to "ACC" or "OFF" gear.
- A minor frontal collision occurs.
- A side collision occurs.
- A rear collision occurs.
- Rollover.
- Other special circumstances occur.

#### **i**NOTE

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



Front seat side airbags are installed at the outboard side of the driver's seat back and that of the front passenger's seat back (as indicated by the dotted dash) marked with "AIRBAG".

When the vehicle is involved in frontal collision, if triggering condition are met, the system triggers the driver's airbag to expand rapidly, assisting seat belt to provide additional protection for the driver.

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

The vehicle's front side supplemental restraint system may not be triggered in the following situations:

- The vehicle power supply is set to "ACC" or "OFF" gear.
- A 100% frontal collision occurs.
- A minor side collision occurs.
- A rear collision occurs.
- Other special circumstances occur.

#### i NOTE

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

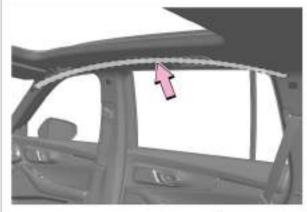


 Please follow warning on door and do not lean against door equipped with a side airbag while driving.

WARNING

 Do not cover the side airbags with seat covers or other objects; otherwise, the side airbags will not be fully triggered to protect the occupants when an accident occurs.

#### Side curtain airbag



OMT6G-7091

Side curtain airbags are installed at the left and right sides of the roof respectively (as indicated by the dotted dash) marked with "AIRBAG".

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

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

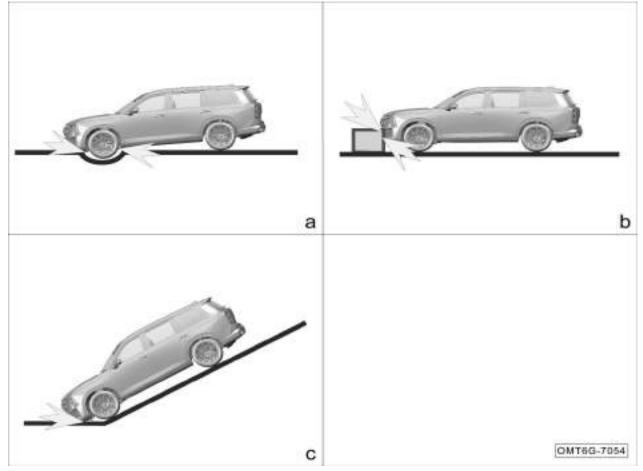
The side curtain airbags might not be triggered in the following cases:

- The vehicle power supply is set to "ACC" or "OFF" gear.
- A 100% frontal collision occurs.
- A minor side collision occurs.
- A rear collision occurs.
- Other special circumstances occur.

#### i NOTE

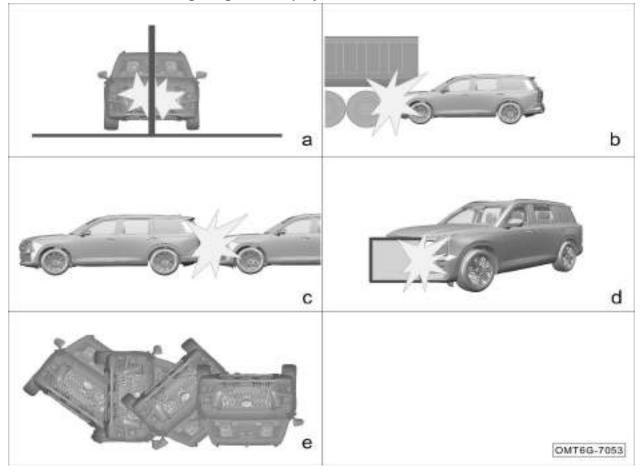
The word "minor" implies the severity of a collision sensed by the SRS control unit and has nothing to do with the damage of the vehicle.

### 3.3.1 Cases where the airbags may deploy



- a: Nose-down to the ground when the vehicle crosses a deep groove.
- b: Collision with roadside protrusions, curbs, etc.
- c: Nose-down to the ground when the vehicle runs 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: The vehicle undergoes lateral roll-over.

#### 3.4 Safe ride of children

#### 3.4.1 General description

A child must take a 2nd-row seat, and a suitable child safety seat should be selected for protection according to the body size of the child.



Warning labels are pasted on the front, and at the back, of the right sun visor to remind the front passenger of the danger of the 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 a child has been put in a child safety seat, do not let any part of his/her head or body rest on the door area (the deployment area of the front seat side airbag or side curtain airbag), otherwise the impact force of the deployed front seat side airbag or side curtain airbag can cause serious injury or even death of the child.
- Do not let a child stand or kneel on the seat.
- Do not allow children to operate devices that may cause pinch to themselves (such as power window, sunroof, etc.).

#### **∧**WARNING

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

#### 3.4.2 Child safety seat



a. Group 0/0+ child safety seat



b. Group I child safety seat



c. Group II child safety seat



Classification of child safety seats (for reference only):

- a. Group 0/0 + child safety seat:
- Suitable for infants weighing less than 13 kg.
- b. Group I child safety seat:
- Suitable for toddlers weighing between 9 kg and 18 kg. For children weighing no more than 18 kg (reference age three years old), the child seat must be installed in a rearward direction.
- c. Group II child safety seat:
- Suitable for children weighing between 15 kg and 25 kg.
- d. Group III child safety seat:
- Suitable for children weighing between 22 kg and 39 kg.

To ensure safety, please adjust the 2nd-row of seat in the vehicle where seat to the rearmost position.

The following models are recommended for Group I child safety seat:

- Baby First Space Castle-Z, product model: R102C.
- It is recommended to install it in reverse and use cushion. Adjust cushion until headrest is at the same height as the child's head. For specific installation methods, please refer to child seat Owner's Manual.

2. Wilton Angela 2nd generation, product model: WD002-ZJC.

Installation precautions are as follows:

- Chair adjustment: It is recommended to install it in reverse and adjust the chair to the most upright position.
- Headrest adjustment: It is recommended that the headrest be adjusted to align with the child's shoulder height.
- It is recommended that the top tether hook be fixed to the 2nd-row seat back of the vehicle.
- Clip pads and shoulder clip are recommended.

## 3.4.3 Information about child safety seats Information about the applicability of different seating positions for child restraint systems

Seat number	Front left	Front right	2nd-row left	2nd-row middle*	2nd-row right	Rear seat left	Rear seat right
Seat position suitable for universal seat belts (yes/no)	No	No	Yes	No	Yes	Yes	Yes
Seat position suitable for i-Size (yes/no)	No	No	No	No	No	No	No
Seat position suitable for lateral mounting module (L1/L2) (yes/no)	No	No	Yes	No	Yes	No	No
Seat position suitable for the largest rear- facing fixed module (R1/R2X/R2/R3)	No	No	R1/R2X/R2/R3	No	R1/R2X/R2/R3	No	No
Seat position suitable for the largest forward fixed module (F2X /F2/F3)			No	F2X/F2/F3	No	No	
Seat position suitable for the largest booster seat mounting module (B2/B3)	No	No	B2/B3	No	B2/B3	No	No

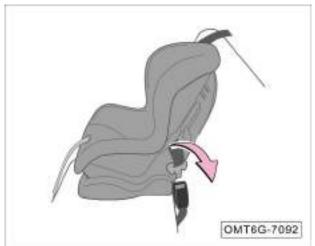
## 3.4.4 Correct installation of child safety seat

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

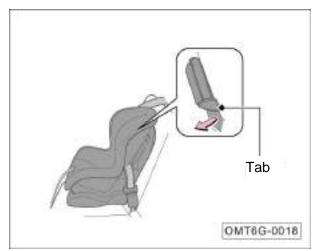
## i NOTE

- During the actual installation of the child safety seat, be sure to refer to the user guide for the child safety seat for correct installation.
- To ensure safety, please adjust the 2nd-row seats where child seat to the rearmost position.

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

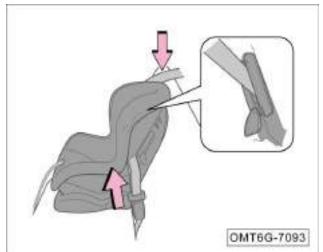


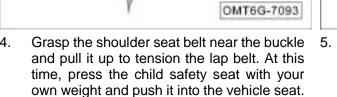
- 1. Place the child safety seat on a 2nd-row seat. 3.
- Pass the seat belt through the child safety seat and fully insert the lock tongue into the buckle until a click sound is heard.

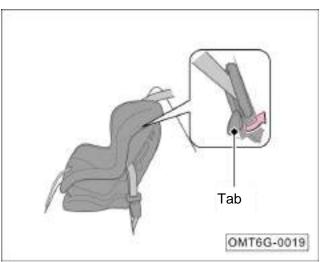


Push the tab down and pass the shoulder seat belt through the slit on the side of the child safety seat.

## 3. Instructions for safe operation



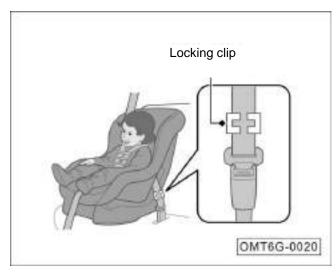




Place the seat belt correctly and push the tab up. Make sure the seat belt is not twisted.
 When pushing the tab up, pull upward the upper part of the shoulder seat belt to tension the belt.



- 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 Step 1 and Step 2, pull the shoulder seat belt upward to make sure the lap seat 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 clip as close as possible to the locking tab and insert the locking tab into the buckle. Go to Steps 6 and 7.

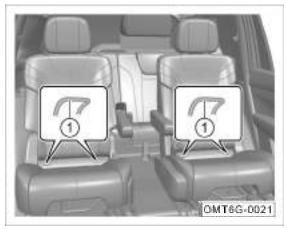
## Installing the ISOFIX system

The 2nd-row seats of this vehicle are equipped with the ISOFIX system, and ISOFIX child safety seat can be installed. The installation instructions of the ISOFIX child safety seat are as follows.

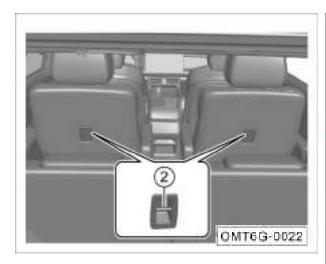
## **⚠** WARNING

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

#### 2nd-row seats

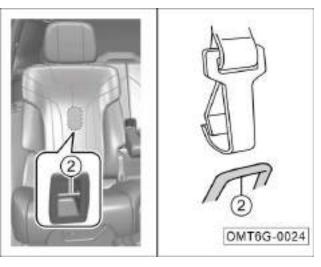


Open the cover, the front fixing point ① of 2nd-row seat is under the cover.





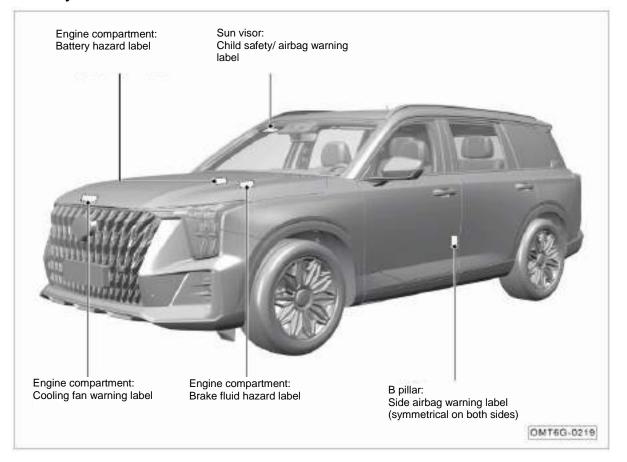




## i NOTE

- Anchorage ② of the 2nd-row seat is located in the middle of back of the backrest and can be seen by Protective Cover of anchorage ②.
- The installation positions of the six-seat and the seven-seat are similar. Take the 2nd-row seat of the seven-seat as an example. Please refer to the actual vehicle.
- I. Put the child safety seat on the seat, open the lid, 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. Thread the strap through the top of the seat back, open the cover of the rear anchorage ②, and attach the strap hook to the rear anchorage ② to ensure that the strap is not twisted.
  - 3. Tension the strap and shake the child safety seat to ensure it is firmly fixed.

## 3.5 Safety labels



The labels are located as shown to remind you of the potential danger that can cause serious injury or death. Please read these labels carefully. If the label comes off or is difficult to read, please go to the GAC Motor authorized shop in time for replacement.

## i NOTE

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

## 4.1 Cab 4.1.1 Steering wheel

## Adjustment of the steering wheel position



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



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

## **∆**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 will not provide effective protection in the event of an accident.

#### **Buttons on steering wheel**



- 1) Left side buttons
- Control buttons of the instrument cluster module display:
  - Driving information operation
  - Alarm center operation
  - Instrument theme switching

- Cruise control buttons:
  - Cruise control button\*
  - Adaptive cruise control button\*
  - ICA button\*
- ② Horn button: Press the button to sound the horn; release the button to stop sounding the horn.

#### **⚠ WARNING**

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

- ③ Right side buttons:
- Phone function control button
- AV system control button
- Voice function control button

#### Steering wheel heating\*

Switch the vehicle power to the "ON" gear, click AV system at the bottom of display to "O" enter seat and heating interface, and click the upper left corner to turn steering wheel heating function on or off.

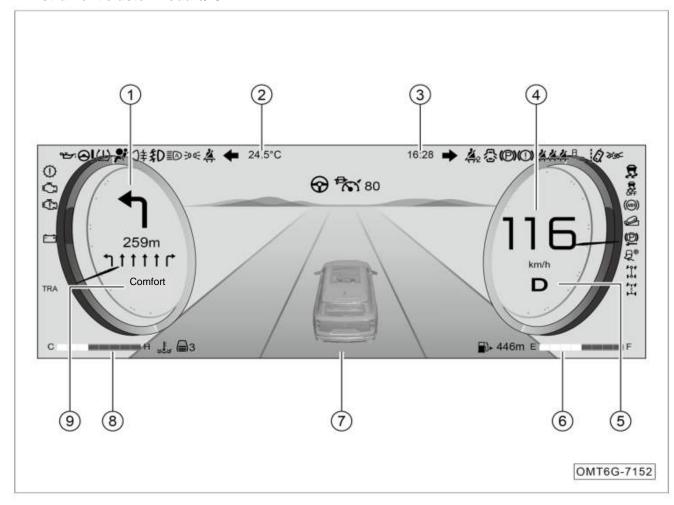
## CAUTION

If you feel no temperature change in the seat for a long time or feel hot after turning on the steering wheel heating function, please immediately turn off the function and go to the GAC Motor authorized shop for inspect and repair in time.

## **▲** WARNING

If your body cannot sense temperature, do not use Steering Wheel Heating Function to avoid burning your hands' heater.

#### 4.1.2 Instrument cluster module/ICM



## **ICM**

- ① Display on the left side of the instrument
- 2 Display of the outside temperature
- ③ Time display
- ④ Speedometer
- ⑤ Gear display
- **6** Fuel gauge
- ⑦Display on the middle of the instrument
- 8 Engine coolant temperature gauge
- 9 Driving mode

## i NOTE

With the vehicle power in the "ON" position, short press the "VIEW" button on the left side of the steering wheel to switch the instrument theme.

## 4.1.3 Indicator lamps

No.	Logo	Name	Color	Function
1	亡	Charging system warning lamp	Red	If the red warning lamp comes on, it indicates that the low voltage battery charging system is faulty.
2	H <del>.</del> Tp	Engine fault indicator lamp	Yellow	If the yellow indicator lamp comes on, it indicates that the engine system is faulty.
3	عيري.	Low oil pressure warning lamp	Red	If the red warning lamp comes on, it indicates that the engine oil pressure is low.
4	۲Ō	Emission fault indicator lamp	Yellow	If the yellow indicator lamp comes on, it indicates that the emission system is faulty.
5	+	Left turn signal indicator lamp and hazard warning lamp	Green	When the left turn signals indicator lamp flashes alone, it indicates that the left turn signal lamp of the vehicle is on. When the hazard warning lamp switch is pressed down, the left/right turn signal indicator lamps and all turn signal lamps will flash simultaneously.
6		High engine coolant temperature indicator lamp	Red	If the red indicator lamp comes on, it indicates that the engine coolant temperature is too high.
7	*	Supplemental restraint system (SRS) indicator lamp	Red	If the red indicator lamp comes on, it indicates that the SRS is faulty.
8	B	Low fuel level indicator lamp	Yellow	If the yellow indicator lamp flashes, it indicates that the fuel level of the fuel tank is low.
				If the yellow indicator lamp comes on, it indicates that the fuel pump level sensor circuit is faulty.
9	<b>→</b>	Right turn signal indicator lamp and hazard warning lamp	Green	If the right turn signal indicator lamp flashes alone, it indicates that the right turn signal lamp of the vehicle is on. When the hazard warning lamp switch is pressed down, the left/right turn signal indicator lamps and all turn signal lamps will flash simultaneously.
	(P)	EPB status indicator lamp	Red	If the red indicator lamp comes on, it indicates that the EPB is applied.
10				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 AUTO HOLD is activated.
				If the yellow indicator lamp comes on, it indicates that the EPB system is faulty.
11	<b>©</b>	EPB fault indicator lamp	Yellow	If the yellow indicator lamp flashes, it indicates that the EPB system is in the service mode.

## 4. Operation of systems and equipment

No.	Logo	Name	Color	Function
12	(1)	Parking brake and brake system indicator lamp	Red	If the red indicator lamp comes on, it indicates that the brake fluid level is low or the electronic brake force distribution (EBD) system is faulty.
13	12 ↔	Electronic stability program (ESP) indicator lamp	Yellow	If the yellow indicator lamp comes on, it indicates that the ESP is faulty.
13	<b>∄</b> ₹₹			If the yellow indicator lamp flashes, it indicates that the ESP is working.
14	€E SS OFF	ESP OFF indicator lamp	Yellow	If the yellow indicator lamp comes on, it indicates that the ESP is off.
15	((**)	Anti-lock brake system (ABS) indicator lamp	Yellow	If the yellow indicator lamp comes on, it indicates that the anti-lock braking system (ABS) is faulty.
		Transmission fault indicator lamp	Yellow	If the yellow indicator lamp comes on, it indicates that the transmission is faulty.
16	0			If the yellow indicator lamp flashes, it indicates that the transmission oil temperature is too high.
17	(1)	Tire pressure monitoring system (TPMS) indicator lamp	Yellow	If the yellow indicator lamp comes on, it indicates that the tire pressure monitoring system (TPMS) is faulty.
18	<b>(A)</b>	Electric Power Steering (EPS) indicator lamp	Red	If the red indicator lamp comes on, it indicates that the EPS is faulty.
19	19 ਨ	CCS indicator lamp*	White	If the white indicator lamp comes on, it indicates that the CCS is in the ready state.
	* *		Green	If the green indicator lamp comes on, it indicates that the CCS is working.
20	00	Intelligent headlight control (IHC) indicator lamp*	White	If the white indicator lamp comes on, it indicates that the IHC is in the standby state.
20	≣Ø		Blue	If the blue indicator lamp comes on, it indicates that the intelligent headlight control is activated.
21 📉	ACC indicator lamp (no vehicle	Gray	If the grey indicator lamp comes on, it indicates that the ACC system is in the ready state, and there is no target vehicle ahead.	
	8	ahead) *	Blue	If the blue indicator lamp comes on, it indicates that the ACC system is working, and there is no target vehicle ahead.
22 ਨ	<b>A</b> _v	Vehicle indicator lamps ahead of adaptive cruise control*	Gray	If the gray indicator lamp comes on, it indicates that the ACC system is in the suppression or ready state, and there is a target vehicle ahead.
	77.		Blue	If the blue indicator lamp comes on, it indicates that the ACC system is working, and there is a target vehicle ahead.
23	<del></del> c-l	ACC fault indicator lamp*	Yellow	If the yellow indicator lamp comes on, it indicates that the ACC system is faulty.

No.	Logo	Name	Color	Function	
24		LDW status indicator lamp*	White	If the white indicator lamp comes on, it indicates that the LDW is activated	
	B		Yellow	If the yellow indicator lamp comes on, it indicates that the LDW system is off or faulty. In that case, please go to the GAC Motor authorized shop for inspect and repair in time.	
			Blue	If the blue indicator lamp comes on, it indicates that the LDA system is working normally or intervenes with the steering wheel for deviation correction.	
25	<i>≥</i> %¢	Forward collision warning (FCW) status indicator lamp*	Yellow	A yellow indicator light indicates that the forward collision warning system turned off.	
26	\$15¢	Forward collision warning (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 inspect and repair in time.	
			Red	If the red indicator lamp flashes, it indicates that the FCW system is being triggered and activated.	
27	<b>♣</b> 2	Front 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.	
28	*	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.	
29	<b>≣</b> O	High beam indicator lamp	Blue	If the blue indicator lamp comes on, it indicates that the high beam is on.	
30	<del>3</del> 00 <del>5</del>	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.	
31	₹D	Front fog lamp indicator lamp*	Green	If the green indicator lamp comes on, it indicates that the front fog lamp is on.	
32	O≨	Rear fog lamp indicator lamp	Yellow	If the yellow indicator lamp comes on, it indicates that the rear fog lamp is on.	
33		BSD status indicator lamp*	Green	If the green indicator lamp comes on, it indicates that the BSD system is activated.	
			Yellow	If the yellow indicator lamp comes on, it indicates that the BSD system is faulty.	
34	<b>₽</b>	Hill descent control (HDC) indicator lamp	Yellow	If the yellow indicator lamp comes on, it indicates that the HDC is activated.	
35	Я	Hands-on steering wheel indicator lamp*	Blue	If the blue indicator lamp comes on, it indicates that the hands on the steering wheel are detected by ICA.	
33			Red	If the red indicator lamp comes on, it indicates that the hands off the steering wheel are detected by ICA.	

## 4. Operation of systems and equipment

No.	Logo	Name	Color	Function
			Gray	If the gray indicator lamp comes on, it indicates that the ICA is in the standby state.
36	❷	Lateral control status indicator lamp*	Blue	If the blue indicator lamp comes on, it indicates that the ICA is activated.
			Yellow	If the yellow indicator lamp comes on, it indicates that the ICA is faulty.
	<b>###</b> *		White	If the white indicator lamp comes on, it indicates that the corresponding seat belts of the second row seats are fastened.
37	/	Second row seat belt reminder light	Red	If the red indicator lamp comes on, it indicates that the corresponding seat belts of the second row seats are not fastened or the seat belt system is faulty.
38	1. 1. a	Third row goot half indicator lamp*	White	If the white indicator lamp comes on, it indicates that the corresponding rear seat belt is fastened.
30	<b>**</b> *	Third row seat belt indicator lamp*	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.
39	* <u>T</u> *	Four-wheel drive (4WD) lock indicator lamp*	Green	Indicator lamp indicates that the four-wheel drive (4WD) is currently in locked four-wheel drive mode.
40	101	Four-wheel drive (4WD) Intelligent Mode indicator lamp*	Yellow	Indicator lamp flashes yellow to indicate that the intelligent four-wheel drive system is overheating.
41	Ş	Door ajar indicator lamp	Red	If the red indicator lamp comes on, it indicates that the engine hood, any door or trunk lid is not closed.
42	<u></u>	Gasoline particulate filter (GPF) indicator lamp	White	If the white indicator lamp comes on, it indicates that the accumulated carbon of the gasoline particulate filter (GPF) exceeds a certain limit, and it is necessary to run at a high speed for more than 40 minutes to clean the carbon.
			Yellow	If the yellow indicator lamp comes on, it indicates that the accumulated carbon of the GPF is excessive, and it is necessary to run at a high speed for more than 40 minutes to clean the carbon.

Note: The vehicle will perform a self-test when starting, and some instrument warning lamps or indicator lamps will briefly come on and then automatically turn off. If there are still warning lamps or indicator lamps comes on the instrument panel after starting, it indicates that the relevant system or function is in a certain working state or faulty. Please read and understand the meaning of all the indicator lamps and warning lamps in detail. If a fault occurs, please visit or contact the GAC Motor authorized shop for inspection in time.

## 4.2 Vehicle locking and unlocking 4.2.1 Remote control key

The vehicle is equipped with intelligent remote control keys (including the 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 vehicle VIN code.

#### i NOTE

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

## Poor signal strength of remote control key

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

Nearby equipment is emitting strong radio waves.

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

## **CAUTION**

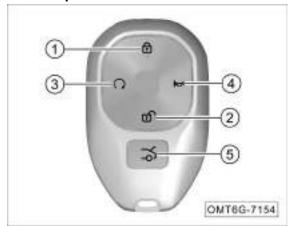
The remote control key contains an electronic circuit that can trigger the engine immobilizer system. If the circuit is damaged, the vehicle may not be started. Therefore:

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

#### i NOTE

- The buttons of the remote control key do not work when the vehicle power is set to "ACC" or "ON" gear.
- If the unlocking or locking function of the remote control key is deactivated, you can try to press the buttons on the remote control key 3 times continuously to activate the function.

#### **Button operations**



① fil: Locking button

②ர்: Unlocking button

③○: Start the vehicle/turn off the vehicle

④ : Horn button

⑤ ⋨: Liftgate unlocking button

## ① Locking button 🛅

- Short press the button once within the effective range and door will be locked. If you press and hold the button, window, sunroof and sunshades will close automatically. If you release the button during the automatic closing process, sunroof, window and sunshades will stop closing.
- If the button is pressed continuously for 2 times, the vehicle locating function will be activated and the turn signal lamps will flash 3 times quickly.

## **CAUTION**

When the window and sunroof is closed remotely, no body parts (such as head, hands, etc.) should be within the closing trajectory of the window and sunroof, otherwise there is a risk of pinching.

#### **i**NOTE

- When the doors are locked, the turn signal lamps will flash once and the horn will sound once. The horn sound can be set to be turned on or off through the AV system.
- The automatic window closing function can be set to be turned on or off through the AV system. After turning it on, press the button once within the effective range, door will be locked, and window and sunroof close automatically.

## ②d Button operations

Short press the button once within the effective range and door will be unlocked. Press and hold the button to automatically open window and lift up the sunroof. If you release the button while sunroof window opening, window will stop opening.

## **CAUTION**

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

## **i**NOTE

When you unlock door, turn signal lamp will flash twice and horn will beep twice. The horn sound can be turned on or off through AV system settings.

## ③ ○ Button operations

- Within the effective range, when the button dis pressed, and the button O is pressed and held within 5s, the turn signal lamp will flash, and the vehicle is started.
- When the vehicle has been remotely started, press and hold the button ○ for 3 seconds to remotely shut down engine.
- The default maximum hold time is 30 minutes.

#### iNOTE

- Before remotely stopping the vehicle, make sure that the vehicle is locked. If you are not sure about it, press the button fonce, and then press and hold the button oto remotely stop the vehicle.
- When starting the engine remotely, please stay within the effective range, otherwise unlocking may be triggered and starting may fail.

#### ④ ►: Horn button

 Press and hold the button on the remote control key for more than 3 seconds to activate the remote alarm function.

## ⑤ ⇒Button operations

 Within the effective range, double-click the button to open or close liftgate electrically.
 During the opening or closing process, if the button is pressed again, the liftgate will stop at the current position.

#### **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 type.
- An inappropriate battery may damage the remote control key.
- Always comply with environmental regulations to dispose of the exhausted battery.

## **Battery replacement steps**



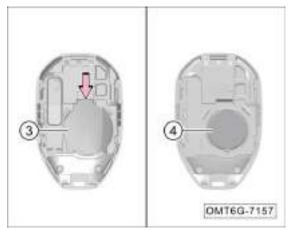
Pick up the key and push the back cover

 in the direction of arrow with your hand.

 Remove the back cover ① after hearing a "click".



2. Remove the emergency mechanical key ② from the position indicated by the arrow.



- 3. Use Emergency Mechanical Key open the cover ③ at arrow.
- 4. Take out the remote control key battery 4.
- 5. Assemble the remote control key in the reverse steps mentioned above.

## 4.2.2 Emergency mechanical key Emergency mechanical key



1. Push the back cover ① firmly in the direction of the arrow. After hearing a "click," remove the back cover ①.



2. Pick up emergency mechanical key ② in the direction of the arrow.

## 4.2.3 Door lock system Central locking button



The central locking button ① can lock and unlock the doors inside the vehicle:

- Lock all the doors: Press the <sup>⊕</sup>end of the central locking button ①.
- Unlock all the doors: Press the dend of the central locking button (1).

#### Door handle



- If the vehicle is locked, pull the driver's side door inside handle once to unlock all four doors. Pull the inner handles of the other side doors once to unlock the corresponding side doors. Pulling again will unlock all four doors.
- If the vehicle is unlocked, pull any door handle once to directly open the door.

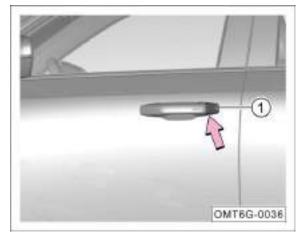
#### **i**NOTE

When the child safety lock is activated (=> see Page 50), even if the rear door lock latch is unlocked, the inside handle cannot open the rear door. In this case, the rear door shall be opened from outside. Do not pull the 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 inner handle during driving to avoid accidents due to opening of door.
- When opening or closing the door, check the surroundings of the vehicle, for example, check whether the vehicle is on a slope, check whether there is enough space to open the door or check whether there is strong wind. When opening or closing the door, hold the door handle tightly for any unpredictable movement.

#### Door lock hole



- Take out the emergency mechanical key.
   See page 47
- 2. Insert the emergency mechanical key into the decorative cover of the mechanical lock at the front left door. Pop up the decorative cover gently upwards, pull up the door handle and take off the decorative cover ①.



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

## iNOTE

When the low-voltage battery is depleted, the emergency mechanical key can only lock the driver's side door and cannot lock all doors.

Emergency locking of the door Locking of the driver's side door

Driver's side emergency locking method => see page 49

Locking of the front passenger's side door



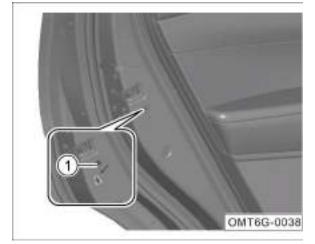
- Take out emergency mechanical key and unfold it.
- 2. Open door, insert emergency mechanical key into the lock switch ①, and turn the emergency mechanical key in the direction of the lock icon on emergency mechanical key.

 Pull out the emergency mechanical key and close the door to lock the front passenger's side door in an emergency. Repeat the above steps to lock the rear door on the same side.

## **i**NOTE

This locking method applies only to the front passenger-side door and the rear side doors.

## **Child safety lock**



- To activate: Push the child safety lock switch ① in the direction of the arrow to the locked position to activate the child safety lock.
- Close: Turn the child safety lock ① in the opposite direction of the arrow to the unlock position to close child safety lock.

## **i** NOTE

- Before driving the vehicle, if a child is sitting in the rear seat, it is necessary to confirm that the child lock is in the open state.
- When the child safety lock is activated, the inside handle cannot open the rear door. At this time, do not pull the inside handle forcefully to avoid damage. The rear door should be opened from the outside.

#### **AWARNING**

When the child safety lock is activated, never leave children or disabled persons in the vehicle alone. Once the doors are locked, it is difficult for children to leave the vehicle on their own to protect their own safety in an emergency; and at this time, external rescue personnel are facing difficulties in rescuing due to the vehicle being locked.

#### **Auto unlock function**

If the vehicle stops with the doors locked and the vehicle power switch set to "OFF" gear, the four doors will be automatically unlocked.

#### **i**NOTE

The auto lock function can be activated or deactivated through AV system settings.

### Speed sensing door lock

When the doors are closed correctly, the vehicle will automatically lock when this function is turned on and the vehicle speed or driving time reaches a certain level.

#### **i**NOTE

- Please read the above related content before activating this function.
- The speed sensing door lock function can be set to be on or off through the AV system.

#### Collision unlock function

With doors locked and the vehicle power in the "ON" gear, 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 unlock function is activated and the intelligent remote control key is brought to the area within 1.5m of the vehicle, the vehicle will be automatically unlocked.

#### **i**NOTE

- The intelligent active unlocking function can be set to be on or off through the AV system.
- After the intelligent active unlocking is successful, the turn signal lamps will flash twice and the horn will sound twice.
- When the vehicle is parked for more than 7 days, the smart active unlocking will be automatically turned off to reduce the power consumption of the vehicle. At this time, you need to use intelligent remote control key to unlock it. When the vehicle start, the smart active unlocking function will be restored.

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

- The vehicle power is not in the "OFF" gear.
- The voltage of the vehicle's battery or intelligent remote control key battery is too low.
- The intelligent remote control key is interfered with by electronic products or metal-containing objects.
- The intelligent remote control key is inside the car or tightly attached to the door glass.
- After the vehicle is locked, if the smart remote key stays within the effective detection range outside the car for more than 10 minutes (the effective detection range is affected by environmental factors, and is approximately 3.5 meters in an interference-free environment).

## Intelligent active locking

- With the intelligent active locking function activated and the vehicle power in the "OFF" gear, after all doors are closed, if the intelligent remote control key is taken over 3.5m away from the vehicle, the vehicle will be automatically locked. The specific locking distance is related to walking speed and environmental factors.
- If you stay within 3.5m of the vehicle for more than 10 minutes, the system will temporarily turn off the intelligent active locking function for power saving purposes. The user needs to open any door again and close it before the intelligent active locking function can be activated again.

#### **i** NOTE

- The intelligent active locking function can be set to be on or off through the AV system.
- If the intelligent active unlock is successful, the turn signal lamps will flash once and the horn will sound once.
- If engine hood and liftgate are not closed properly, an audible and visual alarm will sound after the intelligent active locking is successful.
- If any door is not closed, the instrument cluster module will prompt you that the corresponding door is not closed.

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

- The vehicle power is not in the "OFF" gear.
- Any door is not closed.
- The voltage of the vehicle's low-voltage battery or intelligent remote control key battery is too low.
- The intelligent remote control key is interfered with by electronic products or metal-containing objects.
- The intelligent remote control key is inside the car or tightly attached to the door glass.
- When closing the door, the intelligent remote control key is too far from the vehicle.
- After closing the door, intelligent remote control key outside the vehicle within the effective detection distance for more than 10 minutes (the effective detection distance is related to environmental factors and is approximately 3.5 meters in an interference-free environment).

## CAUTION

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

#### 4.2.4 Door



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

## CAUTION

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

#### **i**NOTE

- If the door is not closed properly, please reopen the door and close it again.
- If the door is not closed properly, there will be a corresponding indication on the instrument cluster display. When the driving speed is higher than 5km/h, there will be a buzzer prompt.

#### **AWARNING**

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

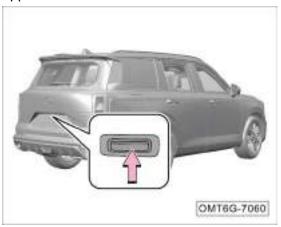
### 4.2.5 Liftgate

## Unlocking liftgate with remote control key

Within the effective range, double-click the solution on the remote control key to electrically open the liftgate.

## Operation of the exterior button on the liftgate

Applicable to models with dragon scale wing appearance



Carry the intelligent remote control key with you and, within its effective range, press the liftgate button to unlock the liftgate.

## Applicable to Traveler Exterior Models



Carry the intelligent remote control key with you and, within its effective range, press the liftgate button to unlock the liftgate.

## iNOTE

If the vehicle is unlocked and stationary, you do not need the intelligent remote control key to unlock and open the liftgate. Instead, you may press the liftgate button to open the liftgate.

## Unlocking liftgate with button on instrument panel



Press and hold and hold liftgate the dashboard and liftgate will open electrically. During opening, if you press this button, the liftgate will stop opening.

## Setting of second height of liftgate:



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

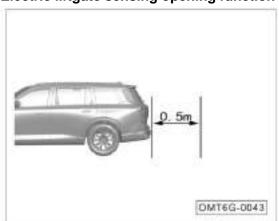
## **i**NOTE

- The electric opening function of liftgate can be system settings on or off through the audio system. When the function is turned off, liftgate will be invalid and the back door must be opened or closed manually.
- When the electric function of the liftgate is turned on, liftgate will open electrically to the set position. During opening, if you press this button again, the liftgate will stop opening.

## **©**CAUTION

The signals sent by the remote control key button, the left side button of instrument panel, the outer button of liftgate, and the inner switch liftgate are all signals without direction. Liftgate confirms the relevant opening and closing direction based on the current state and the last actuation direction. For example, if the last time was a pause in the opening process, the next time the inner switch of liftgate is press pressed, liftgate is closed; if the last time was a pause press the closing process, the next time the inner switch of the back door is liftgate pressed, the back door is opened.

### Electric liftgate sensing opening function\*



With the vehicle power in the "OFF" gear and the four doors and liftgate closed, when carrying the intelligent remote control key and approaching the liftgate sensing area within a range of about 0.5m, the horn will sound once and the high-level brake lamp will flash. If you stay still or take a step back, the turn signal lamp will flash and the liftgate will open automatically. If you leave the liftgate sensing area while the high-level brake lamp flashes (4 times), the liftgate will not open.

#### **i** NOTE

- When the liftgate automatically opens, to remind you, the horn will sound once, the high-mounted stop lamp will flash four times, and the turn signal lamp will start flashing twice.
- If you leave the sensing area of the liftgate during the flashing of the highmounted stop lamp, the function will be temporarily stopped and the liftgate will not open.
- If you press the intelligent remote control key button during the flashing of the high-mounted stop lamp, the function will be temporarily stopped and the liftgate will not open. If you want to trigger this function again, you need to open and close one of the door to reactivate the liftgate sensing opening function.
- The liftgate sensing opening function can be turned on or off through the AV system settings.

#### **©**CAUTION

- It is recommended to turn off this function when cleaning the vehicle.
- Do not leave the remote control key near the liftgate when it is not necessary to open the liftgate.
- Before using the sensing opening of the liftgate, please confirm that there are no people or obstacles within the swing range of the liftgate.

#### **Backpack button operation\***



- When the vehicle is unlocked, press the backpack opening button on the back door to unlock and open the backpack on the back door.
- Push the back cover upwards and the backpack will close when you hear a "click" sound.

#### iNOTE

The maximum load capacity of the backpack is 3kg.

## **Emergency opening of the liftgate**



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

- 1. Lower the 3rd-row seat back. => See page 85
- 2. Open the rear door trim cover ①.
- 3. Push liftgate ② to unlock and open liftgate in an emergency.

#### Close the liftgate



### Electric closing

- Press the liftgate close button, and the power liftgate will automatically lower until it closes by suction. In this case, if you press this button again during the closing process, the power liftgate will stop at the current position.
- If you double-click the button on the intelligent remote control key within effective range, the power liftgate will be automatically lowered until it is closed by suction. If you press this button again during the closing process, the power liftgate will stop at the current position.

If you press and hold the liftgate button on the instrument panel, the power liftgate will be automatically lowered until it is closed. If you press this button again during the closing process, the power liftgate will stop at the current position.

## Manual closing

When the electric function of liftgate is turned off or fails, you can close the back door manually liftgate:

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

#### **i**NOTE

- When liftgate closed electrically from a standstill position, turn signal lamp flash twice and buzzer sounds.
- When the power liftgate is electrically closed, the buzzer will beep alternately.
- If liftgate not closed properly, instrument cluster module/ICM will display that liftgate is not closed. When the vehicle speed exceeds 5km/h, a buzzer will sound as a reminder.

#### **©**CAUTION

- Always close the liftgate firmly, otherwise it may cause accidents.
- Be careful when closing the liftgate to ensure that no person or obstruction is within the movement range of the liftgate.
- Always ensure that the closed power liftgate is locked to prevent sudden opening during driving.

## 4.2.6 Engine hood Opening of engine hood



Pull engine compartment ① under driver's side instrument panel twice. Engine compartment will pop up slightly to a fully unlocked state. Now you can open engine compartment outside the vehicle.

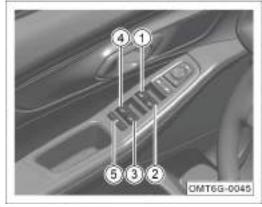
## Closing of engine hood

 Lower the engine hood until it is close to the fender, then press down both hands firmly on the front end of the engine compartment to securely lock it.

#### **i** NOTE

- Before driving, make sure engine compartment hood is closed and locked; otherwise, engine compartment hood may open suddenly during driving, causing a dangerous accident.
- If the engine hood is ajar, the instrument cluster module display will display an alarm message. When the driving speed is higher than 5km/h, there will be a buzzer prompt. Stop driving immediately and close and lock front engine compartment properly.

## 4.2.7 Power window Driver's side power window control button



- Front left power window control button
- (2) Front right power window control button
- 3 Rear right power window control button
- (4) Rear left power window control button
- ⑤ Passenger's window lock button

- Pull up button ① to the first stop position, and the power window will rise until you release the button or until the window reaches the top.
- Pull up button ① to the limit position, and the power window will rise until you release the button or until the window reaches the top.
- Press down button ① to the first stop position, and the power window will lower until you release the button or until the window reaches the bottom.
- Press down button ① to the limit position, and the power window will automatically lower to the bottom.

#### **i**NOTE

- During the automatic up/down operation, if you want the window to stop, you can press down/pull up button ① to stop it.
- The operation of buttons ②, ③, and ④ is the same as button ①, but each only controls the corresponding door window.

 If you press the passenger's window lock button ⑤, the button indicator lamp will come on and the front/rear power window control buttons cannot work anymore. To unlock, press the button again and the button indicator lamp goes out.

#### **©**CAUTION

- Please close all windows before leaving the vehicle.
- Please exercise caution when closing the windows. Do not place your hands near the window edges to avoid the risk of injury.

#### Passenger's power window control button



 The operation of the front passenger power window button ① is the same as that of the driver's side power window button.

#### Initialization of anti-pinch function

If you notice that the one-touch power window function is unavailable, the anti-pinch feature is malfunctioning, or the initialization state has automatically been lost due to multiple activations of the anti-pinch feature in a short period, the system will require re-initialization.

- Pull up the power window button, and the window will rise in increments until it is fully closed.
- 2. After the window is fully closed, continue pulling up the power window button for approximately 2 seconds to complete the initialization.

## **AWARNING**

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

## **Automatic window closing upon locking**

When the doors are locked (via remote key or intelligent auto-lock) and the windows are not fully closed, the system will automatically close the windows to prevent potential damage caused by leaving them open. You can enable or disable the automatic window closing feature through the AV system settings. If automatic window closing fails due to an abnormal condition such as the anti-pinch feature being triggered, the horn will sound four times to alert the user that the windows have not been closed.

#### **Automatic window calibration**

If external factors prevent the window from closing automatically, the window will first lower to the bottom for automatic calibration, then rise again automatically.

#### **©**CAUTION

In special circumstances, some windows may not be able to close automatically, and manual calibration may be required.

#### 4.2.8 Electric sunroof

#### iNOTE

With the vehicle power supply button set to "OFF" position and when the electric sunroof is not closed and the driver's door is opened, the instrument cluster will display the text "Sunroof Not Closed" accompanied by a buzzer. You should check whether the sunroof is closed in time.

## **©**CAUTION

Please close the sunroof, otherwise there is a risk of water entering when it rains.

#### Electric sunshade



- Briefly press the switch ①, electric sunshade will open a short distance and then stop.
- Briefly press the switch ② and electric sunshade will close a short distance and then stop moving.
- Press and hold the switch ① for a certain period of time, and electric sunshade will automatically move to the fully open state.
- Press and hold the switch ② for a certain period of time, and electric sunshade will automatically move to the fully closed state.

#### **i** NOTE

- When the electric sunshade is closed, the sunroof will close as well.
- If the switch is pressed during the automatic opening or closing of the electric sunshade, the electric sunshade will stop at the current position.

## **◆**CAUTION

Do not touch the sunshade with your hands or any objects during the opening or closing process, as this may cause the sunshade to wrinkle, detach, or fail.

## Opening or closing of sunroof



- A brief forward push on sunroof switch ① will close the sunroof a small distance and then stop. Pushing and holding the switch ① forward for a short time will cause the sunroof to close fully automatically.

#### **i**NOTE

- When the sunroof is opened, the electric sunshade will open as well.
- When sunroof opens or closes automatically, push sunroof switch ① in the opposite direction of movement and sunroof will stop moving and remain in the current position.

## Popping-up of sunroof



 When the sunroof is fully closed, pressing the sunroof switch ① will tilt the sunroof upwards. To close the sunroof, push the sunroof switch ① forward.

#### **©**CAUTION

The sunroof or sunhades can be opened or closed via AV system settings.

#### Remote operation

Switch the vehicle power to the "OFF" gear, press and hold the remote control key button  $\oplus$ , sunroof will be closed by remote control, release the button, and sunroof will stop closing.

When the vehicle's power is switched to the "OFF" gear, pressing and holding the remote key button will tilt the sunroof remotely.

#### **i**NOTE

- The remote control function only has the functions of tilting and closing, and there is no opening function.
- In addition to the above operation methods, the sunroof and sunshade can also be controlled for opening or closing through the audio system.

## Sunroof anti-pinch function

Sunroof has an anti-pinch function when sliding closed and closing downward from a tilted state. The anti-pinch function can prevent large objects from being pinched when sunroof is closed.

- If the anti-pinch function is triggered while the sunroof is in the sliding position, the sunroof will move slightly in the open direction and then stop.
- If the anti-pinch function is triggered while the sunroof is in the tilted position, the sunroof will move upwards until it reaches the maximum tilt position.

#### **©**CAUTION

Do not operate the sunroof when the temperature is below -20°C, as the anti -pinch function may not activate under such conditions, potentially leading to accidents. Additionally, low temperatures can cause damage to the motor.

#### **AWARNING**

- The anti-pinch function of the sunroof cannot prevent pinching of light or thin objects.
- Make sure that no one is within the range of motion of the sunroof closing to avoid being pinched.
- The sunroof may stop detecting obstacles at a position where the sunroof is about to be closed fully, so the anti-pinch function will be deactivated at this time.
- Do not try to activate the anti-pinch function with your hands or any part of your body, otherwise you are likely to get pinched.

## Automatic sunroof closing upon locking

When the doors are locked (via remote key or intelligent auto-lock) and the sunroof is not fully closed, the system will automatically close the sunroof to prevent potential damage caused by leaving it open. You can enable or disable the automatic window closing feature through the AV system settings. If automatic sunroof closing fails due to an abnormal condition such as the anti-pinch feature being triggered, the horn will sound four times to alert the user that the sunroof has not been closed.

#### **Sunroof Initialization Process**



- 1. Sunroof and sunshade are not initialized.
- Press and hold sunroof switch ① or sunshade switch ②.
- Sunroof moves to the fully closed position and the sunshade does not move, then sunroof and sunshade move to the fully open position.
- The sunshade does not move, sunroof moves to the fully closed position again, and finally the sunshade moves to the fully closed position.
- Release sunroof switch ① or sunshade switch ② , and sunroof and sunshade initialization is completed.

2. Sunroof is not initialized, but the sunshade is initialized.

#### Sunroof initialization

- Press and hold sunroof switch ①.
- Sunroof moves to the fully closed position and the sunshade does not move, then sunroof and sunshade move to the fully open position.
- The sunshade does not move and the sunroof moves to the fully closed position again.
- Release sunroof switch ① and sunroof initialization is completed.

#### Sunshade initialization

- Press and hold the sunshade switch (2).
- Sunroof moves to the fully closed position and the sunshade does not move, then sunroof and sunshade move to the fully open position.
- The sunshade does not move, sunroof moves to the fully closed position again, and finally the sunshade moves to the fully closed position.
- Release the sunshade switch ② and sunroof initialization is completed.

- 3. Sunroof has been initialized, but the sunshade has not been initialized.
- Press and hold the sunshade switch (2).
- The sunshade does not move and sunroof moves to the fully closed position, then sunroof does not move, and the sunshade moves to the fully open position.
- Sunroof does not move, the sunshade moves to the fully open position first and then to the fully closed position.
- Release the sunshade switch ② and the sunshade initialization is completed.

#### **©**CAUTION

If the electric sunroof system malfunctions, please visit a GAC Motor authorized shop for inspect and repair.

# 4.2.9 Basic operation of body anti-theft system Body anti-theft function - remote control unlocking

The vehicle power is in the "OFF" gear, the vehicle is in the armed state, approach door with intelligent remote control key, press unlocking button. The door will unlock, the anti-theft will be deactivated, and the turn signal lamp will flash twice.

## Body anti-theft function - remote control locking

When the vehicle power is in the "OFF" position, and all four doors, the front hood, and the liftgate are closed, carry the smart remote key away from the vehicle. Press the lock button on the remote key once to lock the doors and activate the armed state. The turn signal lights will flash once.

## Activation of body anti-theft function

When the vehicle power is in the "OFF" gear and the vehicle is in the armed state, the anti-theft system will be triggered if an illegal key or forced door unlocking is detected. The anti-theft horn will sound, and the turn signal lamps will flash.

When the vehicle is locked by remote control and

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

#### **i**NOTE

When no alarm has been triggered, or during an ongoing alarm, pressing the remote key button for switching the vehicle power to the "ON" gear will deactivate the anti-theft alarm, and the vehicle will enter the disarmed state.

## Anti-theft function of engine

When the vehicle power is in the "OFF" gear, the body anti-theft system is deactivated, and a valid key is inside the vehicle. Switch the vehicle power to the "ON" gear, and if the engine anti-theft system passes the verification, the engine anti-theft will be deactivated.

If the engine anti-theft system does not pass the verification, the engine cannot be started and an anti-theft 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



- Lamp switch
- 2) Fog lamp switch

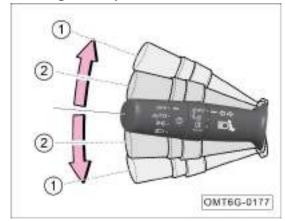
#### iNOTE

The illustration shows a vehicle equipped with front fog lamp\* as an example. Please refer to the actual vehicle for specific functions.

#### **i**NOTE

- Under certain conditions (such as high humidity or after a car wash, but not limited to these), condensation or water droplets may appear on the inner surface of the lamps, similar to fogging on the windows when driving in the rain. This is not a malfunction.
- This fogging phenomenon can be eliminated by parking the vehicle in a dry environment, turning on the lamps or driving the vehicle, but may recur.
- If large water droplets or water ingress appear inside the lamp, please contact a GAC Motor authorized shop for inspection.

## **Turn signal lamp**



When the vehicle power is in the "ON" gear, flick the lamplight combination switch up or down to the first detent position ① to turn on the right or left turn signal lamp, and the corresponding indicator lamp → or ← on the instrument cluster module will flash.

Turn signal lamp flashing for lane change

For lane changes or overtaking, flick the lamplight combination switch up or down to the second detent position ② and release it. The corresponding turn signal lamp and the indicator lamp → or ← on the instrument cluster module will flash three times.

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

#### **©**CAUTION

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

#### Lamp switch



When the vehicle power is in the "ON" gear, rotate the light switch ① to control the AUTO (automatic headlamp), ⇒ (position lamp), or © (low beam).

When the light switch is turned to the "OFF" position, all lamps will turn off.

#### AUTO (Automatic headlamp)

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

#### iNOTE

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

#### CAUTION

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

#### Daytime running lamp

 When the vehicle is started and the low beam is not on, the daytime running lamp will automatically turn on. The daytime running lamp will automatically turn off when the low beam is turned on, or the "READY" indicator lamp goes off.

## Position lamp

Turn lamp to position turn on position lamp, cigarette instrument cluster module/ICM base come on, license plate lights, etc., and indicator lamp comes on.

#### iNOTE

To save battery power, if you forget to turn off the position lamp, it will automatically turn off 15 minutes after the vehicle power is switched to the "OFF" gear and the vehicle is not locked. If the vehicle power is switched to the "OFF" gear and the vehicle is locked, the position lamp will turn off immediately.

#### **AWARNING**

When driving at night or on a road with poor visibility, also use other lamps in addition to the position lamps. Otherwise, accidents may easily occur.

#### Low beam

## High beam

- After turning on the low beam, if you push the lamplight combination switch forward to the limit position, the high beam will be turned on and the corresponding indicator lamp 
  on the instrument cluster module 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

- Pull the lamplight combination switch towards the rear of the vehicle to the limit position to turn on the high beam.
- Release the switch, and it will automatically return to its original position, turning off the high beam.

#### iNOTE

- 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.
- If all lamps are off, pulling and holding the lamplight combination switch will turn on the high beam, and the corresponding indicator lamp son the instrument cluster module 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.

## Warning for lights left on

When the vehicle power supply button is set to "OFF" position with headlamps or position lamps on, if you open the driver's door, the system will send a buzzer sound and the instrument cluster module display will display the warning message "Lamp on".

#### **Follow Me Home**

Activate or deactivate the headlamp delay-off function through the AV system. When the lamplight combination switch is turned to the "AUTO" position and the vehicle power is switched to the "OFF" gear, if the external light is dim, the low beam will illuminate for about 30 seconds. If any of the doors (four doors, engine hood, or liftgate) are opened within this 30-second period, the timer will reset, and the low beam will remain on for 80 seconds. If all doors are closed within that 80-second period, the timer will reset again, and the low beam will stay on for 30 seconds, repeating this process.

## Fog lamp switch



When the vehicle power is in the "ON" gear and position lamp or low beam are on, rotate fog lamp switch ② to turn on or off Off (rear fog lamp).

- Rotate fog lamp switch ② to ₱ position, release it and return it to "-"position, and rear fog lamp will turn on.
- Rotate the fog light switch ② to O\$ position again, release it and return it to the "-" position, and the rear fog light will be turned off.

## Front and rear fog lamp models\*



When the vehicle power is in the "ON" gear and position lamp or low beam are on, rotate fog lamp ② to turn on or off  $\{0\}$  (front fog lamp) and  $\{0\}$  (rear fog lamp).

- Rotate fog lamp switch ② to \$D position, and fog lamp will turn on.
- Rotate fog lamp switch ② to Q position, release it and return it to D position, and rear fog lamp will turn on. Repeat the same operation again and rear fog lamp be turned off.
- Rotate fog lamp switch ② to the "OFF" position, and the front and rear fog lamp will be turned off simultaneously.

### **Hazard warning lamp**



In any gear, press the switch  $\triangle$ , and the red background light of the switch will flash, turning on the hazard warning lamp. Press the switch again to turn off the hazard warning lamp.

When the hazard warning lamp is activated, all turn signal lamps and their corresponding indicator lamps and on the instrument cluster module will flash simultaneously.

To attract attention of other people on the road and reduce the risk of traffic accident, hazard warning lamp should be turned on in the following situations:

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

### **i**NOTE

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

#### Vehicle assisted lighting

Within the effective range, pressing the unlock button of on the remote key will cause the position lamps to illuminate as auxiliary lighting for a period of time. Pressing the unlock button of on the remote key again will extend the illumination of the position lamps for an additional period of time. When the vehicle power is switched to the "ON" gear, the position lamps will turn off.

#### **Vehicle locating lighting**

#### Intelligent welcome light\*

When the vehicle power is in the "OFF" gear and all doors are closed and locked, users can unlock/lock the vehicle and trigger the headlight welcome sequence through the following methods:

- Remote unlock/lock using the intelligent remote control key.
- Approach the vehicle with the intelligent key to unlock it.
- Walk away from the vehicle to automatically lock it.
- If there is no door opening action within 30 seconds after unlocking, the door will automatically lock.

## **Lighting show control\***

Start first, shift into P gear, turn off headlamp, set system settings, and select the lighting effects to enjoy. After clicking the light show function switch, enjoy the external light show.

# 4.3.2 Interior lamps Automatic light-on function of dome lamps



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

#### Interior light delay shutoff system

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

- With the vehicle power supply button in "OFF" position, the dome lamps will come on automatically if any door is opened, and go out about 30s after the doors are closed.
- When the vehicle power is in the "OFF" gear and the doors are unlocked via the remote, the dome lamps will automatically turn on and turn off about 30 seconds later.
- When the vehicle power is switched from "ON" to "OFF" gear, the dome lamps will automatically turn on and turn off about 30 seconds later.

#### **i**NOTE

When all doors are closed, and the dome lamps are illuminated under the above conditions, using the remote to lock the doors or switching the vehicle power to "ON" gear will cause the dome lamps to automatically turn off.

#### **Dome lamp**



When the dome lamps are off and the switch ② is pressed (the switch is recessed), the dome lamps will come on, and all dome lamps will come on; when the switch ② is pressed again (the switch pops up), all dome lamps will go out.

#### iNOTE

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

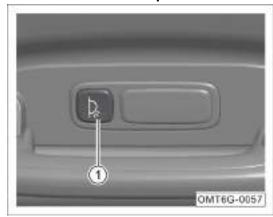


When dome lamp is off, press switch ③ (the switch is recessed) and dome lamp on the corresponding side comes on. Press switch ③ again (the switch pops up) and dome lamp on the corresponding side turns off.

#### **i**NOTE

The switch ③ will be ineffective if it is not used to turn on the front dome lamps.

#### Second row dome lamp



When the 2nddome lamps are off and the switch ① is pressed, the corresponding lamps will come on; when the switch ① is pressed again, all corresponding lamps will go out.

#### **i** NOTE

The switch ① will be ineffective if it is not used to turn on the 2nd row dome lamps.

#### Rear seat dome lamp



- When the rear seat dome lamp is off, press the end 深 or O end of the selection button to turn rear seat dome lamp or off.
- When the rear seat dome lamp is in the flat position, it can be turned on by opening door or pressing the front roof light switch.

#### Glove box lamp

- If the glove box is opened, the glove box lamp will come on automatically.
- If the glove box is closed, the glove box lamp will go out automatically.

#### **Trunk Lamp**

- When the liftgate is opened, the trunk lamp will automatically turn on.
- When the liftgate is closed, the trunk lamp will automatically turn off.

## **Cigarette Lighter Socket Illumination Lamp**

- When the vehicle power is in the "ON" gear, turn on position lamp and the cigarette lighter base lighting will automatically come on.
- When position lamp is switched off, the cigarette lighter socket illumination lamp switches off automatically.

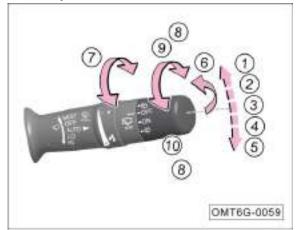
## Vanity mirror light

- If the vanity mirror cover is opened, the vanity mirror light will come on automatically.
- If the vanity mirror cover is closed, the vanity mirror light will go out automatically.

## Intelligent ambient light\*

Ambient Light can be set through system settings to turn Ambient Light on or off, and the ambient light effect can be set after it is on.

## 4.3.3 Wiper combination switch



When the vehicle power is in the "ON" gear, the wiper combination switch can be operated:

- ① MIST: Manual wiping
- ② OFF: Turning off the front windshield wiper
- 3 AUTO: Automatic wiping
- 4 LO: Low-speed wiping
- ⑤ HI: High-speed wiping
- **(6):** Turning on the front windshield washer system
- 7 Automatic wiper sensitivity adjusting knob

- ® Activate the rear windshield washer system
- (10) ON: Turning on the rear wiping

#### **MIST: Manual wiping**

- Move the wiper combination switch to the MIST limit position (①), and the front wiper will manually wipe.
- Release the wiper combination switch to let it return to the ② OFF limit position, and the front wiper will stop wiping.

## **OFF: Wiper off**

If the wiper combination switch is turned to 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 vehicle speed.
- Turn the knob ⑦ up/down to adjust the wiper sensitivity.
- Automatic wiping system can be enabled or disabled through the audio system settings.

When turned off, AUTO gear switches to intermittent gear.

#### **©**CAUTION

- When the message "Sensor failure; please control the wiper manually" appears on the instrument cluster display, for the sake of safety, you should manually control the wiper and go to the GAC Motor authorized shop for inspection in time.
- Before activating the automatic wiping function in winter, please check whether the wiper blade is frozen.
- It is recommended to deactivate the automatic wiping function when washing the vehicle, in dusty weather and in rainless weather to avoid unintentional action of the wipers which may cause damage or personal injury.
- The automatic wiping function is an assist, so the driver should manually operate the wipers when necessary according to the driving situation to ensure driving safety.

#### LO: Low-speed wiping

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

### HI: High-speed wiping

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

#### ON: Turning on the rear wiper

- Reverse Gear Linkage: When the liftgate is closed and the front wipers are activated, shifting into reverse will cause the rear wiper to operate in sync with the front wipers.

# OFF: Turning off the rear windshield washer or wiper

 If the rear wiper combination switch is turned to ③ OFF position, the rear windshield washer system will be turned off and the rear wiper will stop wiping.

# 4.3.4 Windshield Windshield glass



The front windshield is made of green soundinsulating and laminated anti-scattering glass, which can effectively reduce the degree of accident injuries.

## **∆WARNING**

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

# 4.3.5 Rearview mirror Interior rearview mirror



The automatic anti-glare interior rearview mirror monitors the intensity of lights behind the vehicle in real time, and automatically adjusts the reflective effect, so that strong lights it reflects to the driver's eyes turn dark and not glaring.

- Before driving, always adjust the interior rearview mirror to the appropriate angle.
- Hold the interior rearview mirror and adjust it up, down, left and right to the best rearview position.

#### **©**CAUTION

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



### **©**CAUTION

To ensure the proper functioning of the antiglare rearview mirror sensor, do not cover the sensor indicated by the arrow.

#### **Exterior rearview mirror**

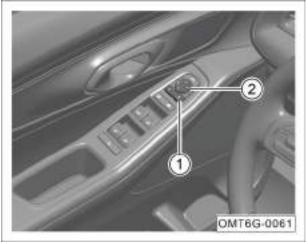
#### iNOTE

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

#### **∆WARNING**

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

## **Electric adjustment**



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

## iNOTE

The left/rear right rearview mirror can be adjusted to a suitable rearview angle through the audio system settings.

#### **Electric folding**



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

#### iNOTE

Fold or unfold exterior rearview mirror via the audio system.

#### **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.

## iNOTE

You can enable or disable the automatic folding function of the exterior rearview mirrors through the AV system settings.

#### **©**CAUTION

- If the power folding function fails, you can manually fold them. After manual folding, please manually restore them. A click sound can be heard when the mirror is manually unfolded.
- Be careful when operating the electric folding function of the exterior rearview mirror to prevent fingers from being pinched by the rearview mirror and its base.

# Reverse tilt function of exterior rearview mirrors

Memory of turning down position of exterior rearview mirror when reversing:

- Manual reverse roll-down function storage operation mode:
- When the vehicle power is switched to the "ON" gear, set the reverse tilt function for the exterior rearview mirrors through AV system.
- Press the brake pedal and shift the gearshift lever into the "R" gear.
- Adjust the exterior rearview mirror on the corresponding side to a suitable reversing position. After adjusting, release pedal, and the adjusted position will be saved as the reverse tilt position for the mirror.

- 2. Automatic reverse roll-down function storage operation mode:
- When the vehicle power is switched to the "ON" gear, enter the AV system settings interface and enable the reverse tilt function for the exterior rearview mirrors.
- Click the exterior rearview "Mirror Angle Adjustment" soft key and adjust both exterior rearview mirrors to suitable reversing positions. Once the adjustment is complete, click the "Confirm" soft key, and the adjusted position will be saved as the reverse tilt position for the mirrors.

#### **Defrosting and defogging**

Through the AV system, enter the front air conditioning control main interface and click the soft key to enable/disable the defrost/defog function. When enabled, the button indicator light will come on.

- Activating the defrosting/defogging function will remove fog or frost from the exterior rearview mirrors and the rear windshield glass.
- After approximately 15 minutes, this function will automatically turn off, or you can manually turn it off during operation by clicking the soft key again, which will turn off the button indicator light.

#### **©**CAUTION

- If fog or frost still needs to be cleared after the defrosting/defogging function automatically turns off, please press the button again.
- Do not use the defrosting/defogging function continuously for an extended period, as the heater may overheat and become damaged.
- If the defrosting/defogging function is not needed, please turn it off to avoid draining the battery unnecessarily.

#### 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 block the sunlight from the front windshield.
- To use the vanity mirror, just turn down the sun visor and pull open the vanity mirror cover in the direction of arrow B. The vanity mirror light will automatically come on.



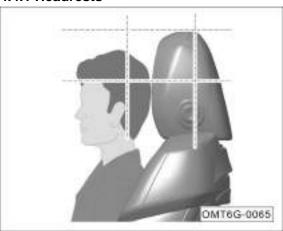
 After flipping down the sun visor on the driver's side or front passenger's side, pull out the adjustable arm in the direction of arrow C to block sunlight entering through the side window.

## iNOTE

If the vanity mirror cover is in the open state, the vanity mirror lighting will automatically turn off when the vehicle power is in the "OFF" gear or the vehicle is locked for several minutes.

## 4.4 Seats and storage facilities

#### 4.4.1 Headrests



Properly adjusting the headrests is essential for protecting driver and passengers and reducing the risk of injury in the event of an accident.

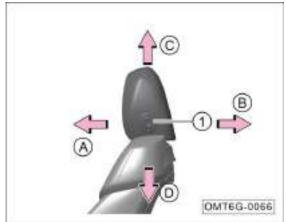
Always adjust the headrest to the correct position (as shown in the figure) according to their body shape.

### **△ WARNING**

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

- Do not adjust the headrest while driving.
- The headrests must always be in their installed position. If the headrests are removed or improperly installed while driving, it significantly increases the risk of serious injury to the driver and passengers in the event of an accident.

Height adjustment of front seat headrests (for manually adjustable 4-way headrests)\*



Forward/backward adjustment

 Press and hold the lock button ①, and push the headrest forward or backward in the direction of arrow A or arrow B to adjust the headrest position.

Upward/downward adjustment

- To raise: Simply pull the headrest upward in the direction of arrow C to the desired position.
- To lower: Press and hold the lock button

   1, and press the headrest downward in the direction of arrow D to the desired position.

Adjust the front seat headrest height (for manually adjustable 2-way headrests)\*



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

#### iNOTE

The method for adjusting the manually adjustable 2-way headrest on the 2nd/3rd row seats is the same.

#### Second row seat aviation headrest\*



- Downward adjustment: Press and hold the lock button ①, and press down the headrest to the desired position.
- Upward adjustment: Pull up the headrest directly to the desired position.
- To adjust both sides of the headrest forward, grip both sides of the headrest handle ② and pull it forward.

#### 4.4.2 Front seats

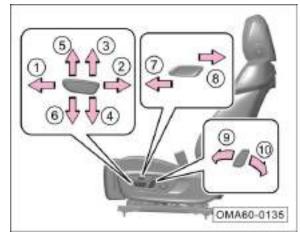
### i NOTE

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

### **⚠ WARNING**

- Do not place any objects under the front seats, as they may get caught between the seat and the rail, preventing the seat from locking properly.
- Do not adjust seat while the vehicle is moving, as this can easily result in casualties. Therefore, front seat can only be adjusted when the vehicle is stationary.
- After the vehicle power is switched to the "OFF" gear, the electric seat adjustment mechanism still functions. Never leave children alone in the vehicle to prevent accidental operation of the electric seats, which could cause injury.

#### Power seats



Forward and backward adjustment of seat:

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

Seat up/down adjustment (driver's seat only):

- Move the switch in the direction of arrow ③ or
  ④ to adjust the seat cushion up or down.
- Seat cushion front end up/down adjustment (driver's seat only):
- Move the switch in the direction of arrow ⑤ or
   ⑥ to adjust the seat height up or down.

Seat front end extension and retraction adjustment\*:

Press the switch in the direction of arrow ⑦
 or ⑧ to adjust the front end of the seat to
 protract or retract.

#### Back front and back adjustment:

## Lumbar support adjustment



Press the switch in the direction of arrow ①
 -, ②-, to adjust the lumbar support: forward, backward, respectively.

## Seat ventilation\*/heating\*

Switch the vehicle power to the "ON" gear, tap the "" button at the bottom of the AV system homepage to pop up the seat ventilation/heating setting page.

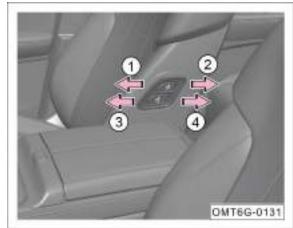
#### **©**CAUTION

- To avoid damaging the electrical components inside the seat, do not kneel on the seat or apply pressure to a specific point on the seat or backrest.
- If you do not feel any change in seat temperature after a long time of turning on the heating function, or if the seat feels too hot, immediately turn off the seat heating function and visit a GAC Motor authorized shop for inspect and repair.
- If the seat ventilation function is turned on and the seat fan does not work, immediately turn off the seat ventilation function and visit a GAC Motor authorized shop for inspect and repair.

#### **⚠** WARNING

If your body cannot sense temperature changes, do not continue to use seat heating to avoid burns from the heater.

# Boss key\*



- Press the switch in the direction of arrow ①
   or ② to adjust the front passenger seat back
   forward or backward.
- Press the switch in the direction of arrow ③
   or ④ to slide the front passenger seat
   forward or backward.

#### **Driver's seat memory\***

Setting the driver's seat memory position

Steps on setting the driver's seat memory position:

- 1. Adjust the seat position to suit your sitting posture.
- 2. Save the current seat position on the AV system interface.

#### i NOTE

If you manually adjust the driver's seat position, the AV system may prompt you to save the new position or restore the previously saved position. (If you do not need to save or restore, simply ignore these prompts.) Confirm to save the position and complete the position update storage.

### **A** WARNING

Do not perform any related operations while driving, as the seat movement may distract you and lead to an accident.

#### 4.4.3 Second-row/rear seats

2nd row seat adjustment (manual adjustment)



Forward and backward adjustment of seat:

 Pull up the adjusting lever in the direction of arrow A 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.

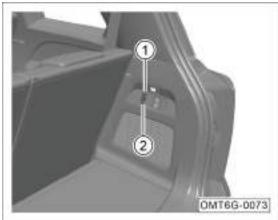
Forward and backward adjustment of seat back:

 Pull the adjustment handle in the direction of -Arrow B- to adjust the backrest to a suitable position. Release the handle and ensure the seat backrest is securely locked.

## i NOTE

The adjustment method for the second-row seats in six-seater models\* is the same.

# Second row seat back folding (Electric)\*



 Press switches ① and ② to electrically fold seat. After folding, they need to be manually reset to the appropriate position and confirm that seat back securely locked.

# Second row center armrest (applicable to seven-seater models)



## **i** NOTE

The central armrest is not for seating passengers. If needed for seating, return the central armrest to its position within the backrest.

## Second row center armrest (applicable to sixseater models)\*



 The armrest position can be adjusted up and down in the direction of the -arrow-.

## Second-row seat heating\*

Click the icon in the lower right corner of AV system to enter seat heating control interface.

#### Rear seat back adjustment (Manual)\*



- Pull up the adjusting buckle handle in the direction of arrow ①.
- Push back in the direction of arrow ② or arrow ③ to the appropriate position, release the adjustment buckle and confirm that back locked.

#### Rear seat back adjustment (Electric)\*



- Pull up button ①, adjust rear seat back to a suitable position and then release the button.
- Press button ①, adjust rear seat forward to a suitable position and then release the button.

### **i** NOTE

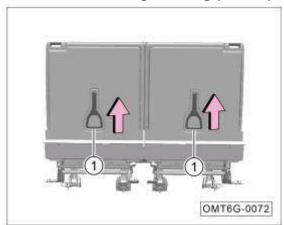
- The rear left seat adjustment method is the same as the rear right seat.
- Please adjust rear seat back after the liftgate is closed to avoid affecting the normal closing liftgate.
- During seat adjustment, if the seat load is too heavy or the movement space is restricted, triggering the seat motor protection, the seat may no longer be adjustable. The seat adjustment can be restored in the following ways:
  - ① Reduce seat load or remove obstacles.
  - ② Adjust seat in the opposite direction and then try to adjust it to the target position.

#### Rear seat passenger seat exit operations\*



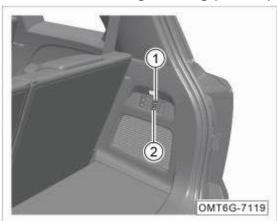
- Press the shoulder switch on the backrest of the right second-row seat in the direction of the -arrow-. This will electrically fold the backrest forward and unlock the slide rail to move the seat forward, allowing easier access for rear seat passengers.
- Return seat back to the seating position: Push seat back until the slide rails and back are locked into place. Before driving, make sure seat back and slide rails are securely locked.

## Third row seat folding/resetting (Manual)\*



 Open liftgate and pull handle ① to manually fold rear seat. If necessary, pull handle ① to reset it and make sure the seat is locked securely.

## Third row seat folding/resetting (Electric)\*



 Press switches ① and ② to fold third-row seat electrically; pull up switches ① and ② to reset the third-row seats electrically.

# 4.4.4 Storage facilities

# Storage compartment on door interior trim panel



 Place beverage bottles, map manuals and other articles here.

# Storage box on lower guard plate of cab



- Open the storage box of cab's lower guard in the direction of the arrow to place small articles.
- Push back to close the storage box until you hear a "click" sound.

## **Cup holder**



 Front cup holder: Press the front cup holder cover to open it and use the cup holder for placing beverage bottles.

## Second row cup holder (for seven-seat models)



Fold down armrest to store beverage bottles.

## Second row cup holder (for six-seat models)\*

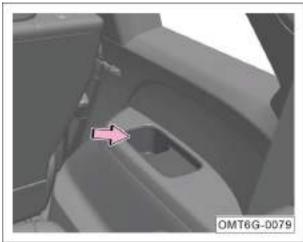


 Press the right end of seat in the second row to pop out the hidden cup holder for placing beverage bottles.

## **⚠** WARNING

Do not place hot beverages in the cup holder, as they may spill and cause burns to driver and passengers while driving.

# Rear seat cup holder\*



- Suitable for placing beverage bottles.

## Spectacle case



- Press on the spectacle case to slowly open the case to hold small articles such as sunglasses.
- Push back to close the spectacle case until you hear a "click" sound.

# Storage slot in front of the instrument panel



- This is suitable for placing small items.

### **i** NOTE

For models equipped with mobile phone wireless charging\* function, this area is used as a mobile phone wireless charging area. The mobile phone wireless charging function must be turned off.

Only then can you place items. See => See page 95

### Front central armrest box



- Press button ① to open the front central armrest box cover, which can store items such as wallets.

## Central armrest rear storage box\*



- This is suitable for placing small items.

## Storage bag on the back of front seat



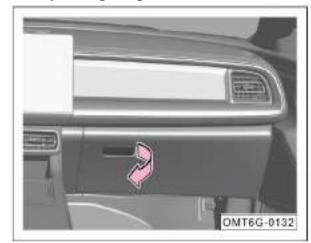
 Pull open the storage bag backwards to place books, foldable umbrellas and other articles.

# Second row seat compartment (for six-seater models)\*



This is suitable for placing small items.

## Front passenger's glove box

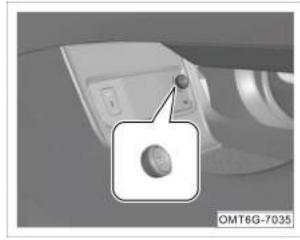


- Pull the opening handle to open the glove box to place items such as document bags.
- Push back to close the glove box until you hear a "click" sound.

## **⚠** WARNING

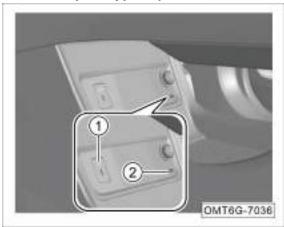
The glove box shall be closed while driving, as items inside may fly out during emergency braking or in the event of an accident, causing injury to passengers.

# 4.4.5 Power outlet/charging port Front 12V power outlet



 When the vehicle power is in the "ACC" or "ON" gear, remove the plug to use power outlet.

## Front USB port/Type-C port



When the vehicle power is switched to "ACC" or "ON" gear, connect your mobile device to use Type-C port ① and USB port ②.

### **i** NOTE

- The TYPE-C port ① is used for charging.
- USB port ② supports charging, media playback and OTG (mobile phone connection)\*.

# Armrest/Type-C port USB port the central armrest



 When the vehicle power is switched to "ACC" or "ON" gear, connect the charging device to use.

# **i** NOTE

USB port /Type-C port is for charging only.

# Second row central USB port (for six-seat models)\*



 When the vehicle power is switched to "ACC" or "ON" gear, open the lid and connect the charging device to use.

## 12V power outlet trunk luggage compartment

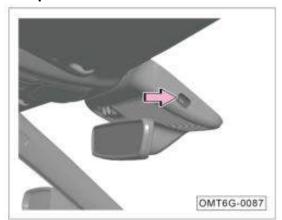


When the vehicle power is switched to "ACC" or "ON" gear, open the rear power outlet cover and connect the charging device to use.

## **i** NOTE

Devices up to 12V/120W are supported.

## **USB** port in interior rearview mirror\*



 When the vehicle power is switched to "ACC" or "ON" gear, connect your device to use.

# 4.4.6 Mobile phone wireless charging system\*

The wireless mobile phone charging system uses electromagnetic induction to charge the phone without the need for a wired connection.

### **CAUTION**

The wireless mobile phone charging system is not compatible with all phones. It only supports phones that are "Qi" certified. GAC Motor is not responsible for any accidents or damage caused by the use of non-certified phones or other wireless charging receivers.



The effective wireless charging area is located in the storage compartment in front of the gearshift lever. During charging, align the phone's charging coil with the "Qi" symbol to ensure proper charging.

#### Wireless charging switch

When the vehicle power is in the "ON" gear, you can click soft key display the system status bar of AV system to open control panel and choose to turn on or off the mobile phone charging system.

It can also be turned on or off through the "Qi" icon on the main interface of AV system.

### **i** NOTE

- The mobile phone wireless charging function is activated by default.
- system is turned on, the mobile phone wireless charging status icon will be displayed in the interface status bar. The icon status will change according to the use of the mobile phone wireless charging system. After clicking the icon, the corresponding text information will pop up.

## Symbol status

Symbol	Color	State
q;	White	Standby
qi	Green	Charging/fully charged
q;	Red	Fault of charging

### **i** NOTE

- GAC Motor is not responsible for any problems caused by abnormal use (e.g., using an external wireless charging coil). If the product has been disassembled or modified, the free warranty service will be voided.
- Only one phone can be charged at a time.
- On bumpy roads, the wireless charging may intermittently stop and resume. If the phone moves out of the charging area and stops charging, reposition it back into the charging zone.
- The wireless charging function requires proper operation on both the vehicle and phone ends. If either system malfunctions, charging may not occur.
- The charging of the mobile phone may be discontinued when the temperature is too high, and will be continued after the temperature decreases.

#### CAUTION

- Do not spill liquids into the storage compartment as it may damage the wireless charge module and electronic components.
- Avoid placing heavy objects in the charging area to prevent damage to the wireless mobile phone charging system.
- If the product is faulty and cannot be used normally, please stop using it and go to GAC Motor authorized shop for inspect and repair in time.
- If you find any metal objects between the phone and the charging area during wireless charging, do not remove them by hand immediately to avoid burns. Turn off the wireless charging function and wait for the area to cool before removing the object.

## **⚠** WARNING

- Do not place any objects between the phone and the charging pad while charging. Non-metal objects can reduce charging efficiency. Magnetic cards, chip cards, and similar items may get damaged. Keys, coins, or other metallic objects may heat up, creating safety risks.
- If you need to place metallic objects in the wireless charging area, be sure to turn off the wireless charging function first to avoid the risk of heating metal objects in the area.
- Do not leave your phone charging inside the vehicle when the driver is not present, as it may lead to unnecessary safety incidents.

#### 4.4.7 Trunk

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

#### **⚠** WARNING

- The center of gravity of the vehicle carrying heavy objects may change. If heavy objects in the trunk suddenly slip, the maneuvering stability of the vehicle will change.
- Items in the trunk must be secured. In the event of emergency braking or an accident, unsecured items may fly forward, causing injury to passengers.
- Do not place fragile, flammable and explosive articles in the trunk!

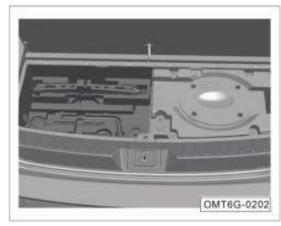
### Trunk volume

Trunk can be increased by folding down back second-row seat and the third-row seat. => See page 85

## **i** NOTE

When fluids are to be loaded, ensure that the container is such sealed that no leakage will occur. Try not to place it on a folded seat back to prevent liquid from leaking and wetting the seat.

## Trunk rear storage box



 Lift up the rear carpet of trunk, and you will find WARNING and driver's tool in the rear storage box.

## 4.4.8 Roof Rack



Roof rack of this vehicle can carry a maximum of 50kg of items and overloading is prohibited.

#### 4.4.9 Accessories and modifications

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

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

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

#### **⚠** WARNING

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

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

# Before installing the accessories, please ensure that:

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

#### **i** NOTE

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

#### **Modification of vehicle**

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

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

#### **⚠** WARNING

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

#### **⚠** WARNING

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

#### 4.5 A/C system

#### 4.5.1 General description

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

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

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

#### **A WARNING**

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

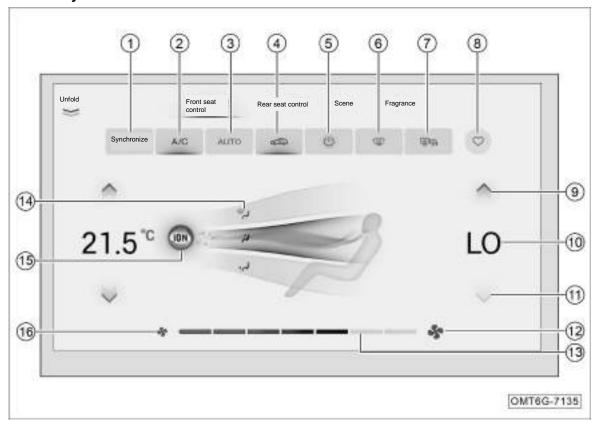
#### CAUTION

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

#### iNOTE

- When the vehicle power is in the "ON" gear, the A/C system can be operated.
- When the air conditioning is on, water may drip from the bottom of the vehicle. If the air conditioning is used for an extended period while the vehicle is stationary, water may accumulate under the vehicle, which is a normal phenomenon.
- Regularly clear snow, ice, and leaves from the front windshield wiper cover to prevent blockage of the air intake for the A/C system, ensuring normal airflow into the system.
- The A/C system can achieve its maximum effect with 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.

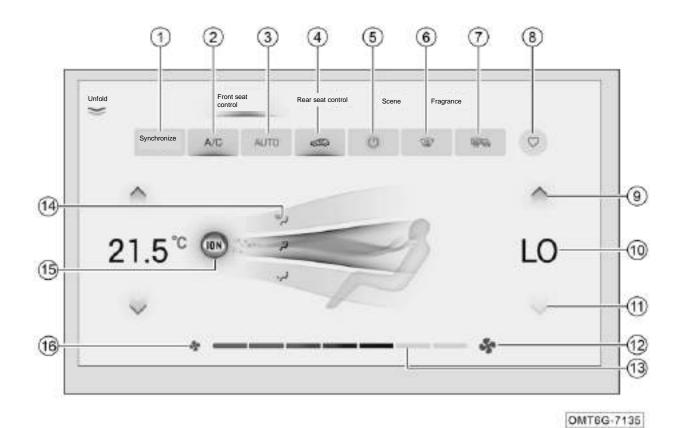
# 4.5.2 A/C system



## Front air conditioning control interface description

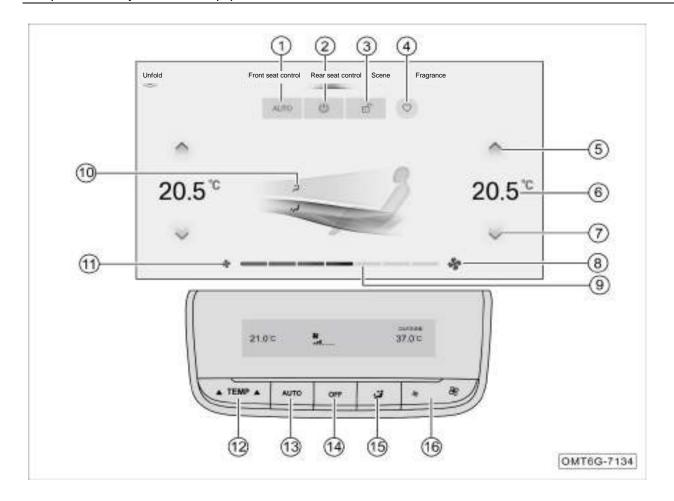
- ① Temperature "Sync" soft key
- ② A/C cooling soft key
- 3 AUTO AUTO mode soft key
- ④ 🕿 Air internal/fresh air automatic control button
- Air recirculation soft key
- Air external circulation soft key
- ⑤**也** Air conditioning ON/OFF soft key
- ⑤ ₩ Front windshield defrosting/defogging soft key
- Rear windshield and exterior rearview mirror defrosting/defogging soft key

- 10 Temperature display
- 12 Fan speed increase soft key



# Front air conditioning control interface description

- Is an speed gear level display
- (4) Fig. Open/close the corresponding wind direction of the front row
- 15 Lon purification function soft key
- ⊕ Fan speed decrease soft key



# Rear air conditioning control interface description

- **①AUTO AUTO mode soft key**
- ② ტAir conditioning ON/OFF soft key
- ③ d Rear A/C lock/unlock soft key
- ⊕ ♥ Favorite quick scene soft key
- ⑤△Temperature increase soft key
- **©Temperature display**
- § ♣ Fan speed increase soft key

- ① ♣ Fan speed decrease soft key
- ②Rear temperature adjustment button
- ③ AUTO rear air conditioning/A/C AUTO mode button

- 4 OFF rear air conditioning/A/C OFF button
- Rear air supply mode button
- ⑥ Air speed control button

# Air conditioning fragrance\*

The air fragrance system can improve the air quality inside the vehicle. The fragrance is released using a unique pulsed system, which helps avoid olfactory habituation.

### Conditions for use

- It is recommended to activate the fragrance system while the air conditioning is running for a better experience.
- 2. The interior temperature should be between 10°C and 28°C.
- 3. The fragrance cartridge is installed, and its lifespan has not expired.

Turn the air conditioning fragrance on/off

- When the vehicle power is activated, switch the AV system to the A/C system control interface, and click the "Fragrance" soft key to access the fragrance control screen.
- Select the desired fragrance type to enter the corresponding fragrance control interface, where you can turn the fragrance on/off and adjust its intensity.

The following situations may affect your experience of fragrance concentration:

- Sunroof, door and window are open.
- A/C is recirculation.
- Temperature and humidity inside the vehicle.
- Fragrance cartridge lifespan.
- Physical state, such as fatigue or hunger.
- When a certain fragrance is released for a long time and then switched to another fragrance, it may not be perceived in a short time.

Fragrance cartridge and fragrance description

 If the fragrance cartridge is not installed, the air conditioning interface will not display the fragrance soft key, and the AV system display will show "No fragrance cartridge installed, please contact a GAC Motor authorized shop for installation".

## **CAUTION**

- When the remaining amount of a fragrance block drops to 10%, and you select that fragrance, a pop-up notification will appear saying: "Fragrance is about to run out, please replace it soon". This reminder will appear each time you switch to the corresponding fragrance.
- When the remaining amount of a fragrance block reaches 0%, the corresponding fragrance button on the fragrance control interface will display "Fragrance type is used up", and the button will be grayed out.
- Once the fragrance block is used up, it is recommended to visit a GAC Motor authorized shop to replace the block before the fragrance function can be used again.

## Fragrance cartridge

If you need to replace the fragrance block, it is recommended to go to GAC Motor authorized shop for replacement.

## Air conditioning control buttons



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

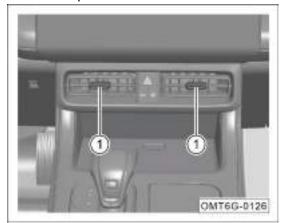
# 4.5.3 A/C air outlet

Instrument panel side air outlets



 Move the vent control tab ① to adjust the airflow direction or to close the air outlet.

# Instrument panel central air outlet



 Move the vent control tab ① to adjust the airflow direction or to close the air outlet.

# Instrument panel compensation air outlet



 air outlet ① opens automatically in the face-blowing mode and closes in other modes.

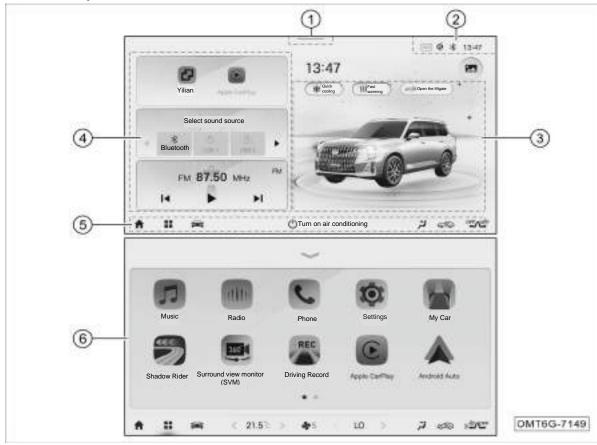
# 2nd/3rd-row air outlet



Turn the lever ① to adjust the air volume and direction.

# 4.6 AV system

# 4.6.1 Basic operations



Main interface function description:

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

# **CAUTION**

Under high temperature conditions, AV system may trigger protection and display may dim. It will recover after the vehicle temperature drops. This is normal.

# CarPlay\*

CarPlay allows you to use navigation, make calls, send and receive messages, and enjoy music, all while keeping your focus on driving. There are two ways to connect:

- Method 1: Turn on Bluetooth on your phone. On the car's system, search for your phone in the Bluetooth connection interface. Once found, select the phone and choose CarPlay in the pop-up screen to connect wirelessly.
- Method 2: Use a USB cable to connect your phone to the car's USB port. After a successful connection, the system will automatically switch to the CarPlay main interface, and the "Apple CarPlay" icon will be highlighted on the system interface.

### Returning to the car system:

- Click the "GAC" icon in the CarPlay application menu to return to the car system.
- Click the "Apple CarPlay" icon in the AV system application menu to re-enter CarPlay mobile phone connection.

### iNOTE

- CarPlay functionality and applications are subject to Apple's official announcements. According to Apple's 2019 information, Apple CarPlay supports iPhones 5 and above.
- When using CarPlay, ensure that iPhone Settings → General → Restrictions → CarPlay is enabled; otherwise, the iPhone can only be used as an iPod and will not support Apple CarPlay.
- Please use the genuine iPhone data cable, otherwise connection failure may occur.

Android automobile phone connection

The system allows your phone screen to be mirrored on the car's AV system, sharing functions such as calls, navigation, and music.

When connected with an Android phone, both the phone and the car AV system can control the interface. Once connected, you can use your phone to play music, videos, navigate, and make calls, with actual operations based on your phone's system.

## iNOTE

- Android Auto currently supports Android 5.0 or higher versions of Android phones.
- The Android Auto interface may update with app version changes. Please refer to the actual version in use.
- If there is an issue with the Android Auto mobile phone connection, try disconnecting and reconnecting the USB cable. Also, check the condition of the cable, and replace it if damaged, using an original cable if possible.

## Application acquisition methods

- Method 1: If the Android Auto app is not installed on your phone, connect the phone to the AV system with a USB cable. The system will display a connection interface and push a link to your phone to download the Android Auto app.
- Method 2: Search for the Android Auto app in your browser or phone app store to download it.

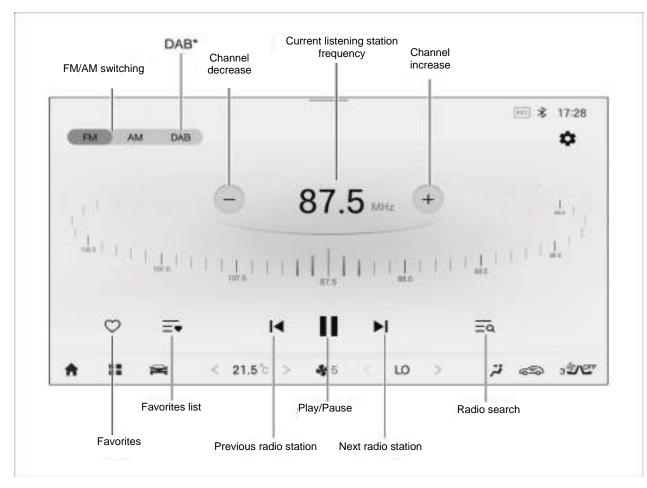
## Connection steps

- 1. Install the Android Auto app on your phone.
- 2. Connect your phone to the car's AV system using a USB cable.
- 3. Click on the Android Auto icon in the AV system menu. Then follow the prompts to connect your phone.

## Exit methods

- Method 1: Disconnect the USB cable to exit the Android Auto mobile phone connection system.
- Method 2: In the Android Auto main interface, click the exit icon to leave the Android Auto mobile phone connection system.

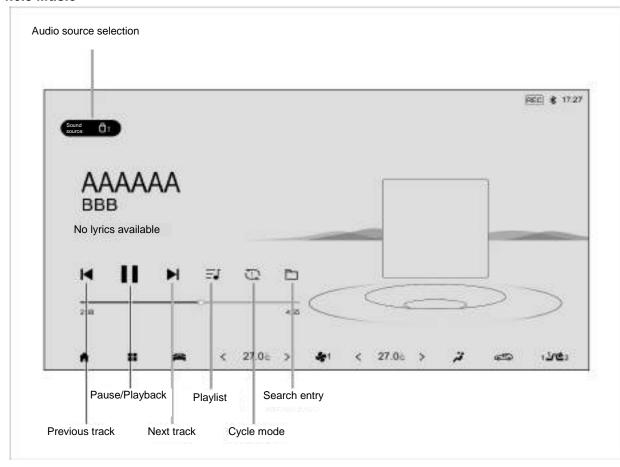
## 4.6.2 Radio



Enter the radio playback interface through the following ways:

- Click "Radio Station Card" on the main interface to enter the radio station playback interface.
- Shortly press the audio source switch button on the right side of steering wheel to switch to the radio station playback interface.
- Click the "Radio" soft key in the application menu interface to enter the radio playback interface.

## 4.6.3 Music



Enter the local music playback interface in the following ways:

- Click "Media Card" on the main interface to enter the music interface.
- Press the sound source switch button on the right side of the steering wheel repeatedly to switch to the music interface.
- Click the "Music" soft key in the application menu interface to enter the music interface.

## iNOTE

- You can select the audio source by clicking the "Audio Source" soft key in the upper left corner. After selecting the audio source, enter the music playback interface.
- The AV system only supports the use of USB devices in FAT16/32.

### 4.6.4 Bluetooth function

Enter the Bluetooth mode in the following ways:

- Click the "Bluetooth Phone" card in the smart card area to enter the Bluetooth interface.
- Click the status bar icon in the upper right corner of AV system \* to turn on Bluetooth.
- Click the "Phone" soft key in the application menu to enter Bluetooth interface.
- After clicking the "Bluetooth Switch" soft key to enable Bluetooth, the car system will automatically search for nearby Bluetooth devices.
- After Bluetooth is connected, the status bar icon is highlighted.
- Click the "Automatically Sync Contacts" soft key to synchronize mobile phone numbers, contacts, media and other information.
- Press the Bluetooth soft key again to disconnect the Bluetooth connection.

## **Fault of Bluetooth connection**

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

## 4.7 E-call emergency rescue\*

The emergency rescue functions include automatic assistance in case of collision and manual emergency assistance. Automatic help is a function that the system automatically activates in certain situations, while manual emergency help requires manual pressing of the emergency contact button.

Both automatic help and manual emergency help functions can call emergency contacts.

- Automatic emergency assistance: In the event of a collision where the airbags deploy, the system activates the collision emergency rescue function, automatically dialing the preset emergency contact number.
- Manual emergency help: When the automatic help function is not working, manually press the emergency contact button to start the manual emergency help function and call the emergency contact number.

# **Emergency contact button**

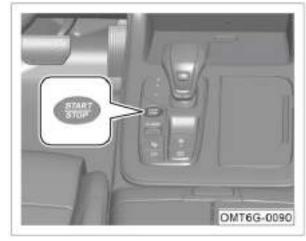


SOS button ①: press and hold (3s), the system starts the manual emergency assistance function and calls the emergency contact number.

# iNOTE

- The emergency contact number is entered as the designated emergency contact number with your consent at the time of vehicle sale.
- Please use the emergency contact button only when necessary.

# 5.1 Starting and driving5.1.1 START/STOP button



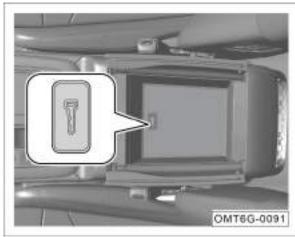
The START/STOP button works only when the intelligent remote control key is detected in the vehicle.

When the transmission gearshift lever is in the "P" gear and the brake pedal is pressed down, the START/STOP button backlight turns green. Press the START/STOP button, and the "READY" indicator lamp on the instrument cluster module (ICM) comes on, and the vehicle starts.

When the transmission gearshift lever is moved to "P" gear and the brake pedal is not depressed, press the START/STOP button to switch the gears in the following order: "OFF  $\rightarrow$  ACC  $\rightarrow$  ON  $\rightarrow$  OFF".

- OFF: The START/STOP button backlight is white, and the START/STOP button is turned off.
- ACC: The START/STOP button backlight is orange, and accessories such as the 12V power outlet and USB port are available for use.
- ON: The START/STOP button backlight is orange, the instrument cluster module (ICM) backlight comes on, and all electrical devices are available for use.

## Limphome mode



If the instrument cluster display shows the NOTE "Key not detected" due to low battery in the intelligent remote control key, you can place the intelligent remote control key horizontally on the key symbol at the bottom of the front central armrest box. Then, press the START/STOP button to switch to the "ACC" or "ON" gear with the transmission shift lever in the "P" gear, and press down the brake pedal. Once the START/STOP button backlight turns green, press the START/STOP button again, and the "READY" indicator lamp on the instrument cluster will come on, and the vehicle will start.

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

## 5.1.2 Engine start

- 1. Carry the intelligent remote control key with you to enter the vehicle.
- 2. Make sure the gearshift lever is in "P" or "N" position.
- Depress the brake pedal and make sure the backlight color of the START/STOP button is green.
- 4. Press down the START/STOP button to start the engine.

## **i** NOTE

In case of a cold start, run the engine at idle speed to warm up it before driving. At the same time, the valve tappet takes a few seconds to reach the normal working pressure, and operation noise will occur, which is a normal.

## CAUTION

- The engine start time shall not exceed 15 seconds. If the engine is not started successfully, you must wait about 30 seconds before next attempt.
- Do not depress the accelerator pedal hard to make the engine run at high speed or overload after starting. Otherwise, the engine is likely to be damaged.
- If the low-voltage battery is depleted and the vehicle cannot be started, you can attempt an emergency start using jumper cables. => See page 252
- Do not start the engine by pushing or towing it.

## **∆**WARNING

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

## 5.1.3 Vehicle locking

- 1. Stop the vehicle and apply the parking brake.
- 2. Set the gearshift lever to "P" position.
- Release the brake pedal, press down the START/STOP button, and turn off the vehicle.

## **i** NOTE

After the vehicle is turned off, the radiator fan may continue to operate for a period of time.

## **Emergency power-off**

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

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

 After setting the gearshift lever to "P" or "N", press the ENGINE START/STOP button to start the vehicle.

## **AWARNING**

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

## **Precautions for parking**

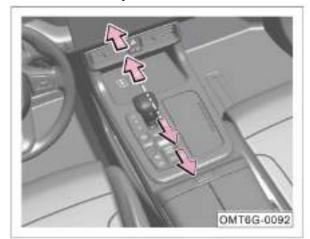
When parking, set the gearshift lever to "P" or "N" position and pay attention to the following:

- Pay attention to the direction in which the vehicle is parked, for fear of damage to the green belt with the exhaust gas spraying on the plants.
- Try to park on a flat and straight road, instead of a steep slope.
- When parking on a slope, regardless or whether the vehicle is facing the top or bottom of the slope, the front wheels should be turned towards to the curb.
- The parking brake should be applied, and the vehicle, all lamps, and other electrical devices should be turned off.
- When leaving the vehicle, be sure to take your valuables and vehicle key(s) with you, and confirm that the sunroof, windows, doors, and liftgate are all closed.

### **AWARNING**

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

### 5.1.4 Gear description



The shift lever has the gear: "P, R, N, D". When the vehicle power is in the "ON" gear, after switching gear, the corresponding gear on gear will come on, and instrument cluster module/ICM will display gear.

## **AWARNING**

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

## P: Parking gear



- When the vehicle is completely stationary, press the "P" gear button to switch to "P" gear.
- Depress the brake pedal and push the gearshift lever forward or backward to move the gearshift lever out of "P" position.

## **i** NOTE

When the gearshift system fails and "P" position cannot be moved out, please contact the GAC Motor authorized shop for inspect and repair.

## R: Reverse gear

- When the vehicle is completely stationary, depress the brake pedal, set the gearshift lever to "R" position, and the reverse position prompt will sound once.
- Release the brake pedal, slowly depress the accelerator pedal, and the vehicle will move backwards.

## N: Neutral gear

- When the transmission is in P" position, step on the brake pedal and gently push the gearshift lever forward to the first resistance point position to shift to "N" position.
- The gearshift lever can be shifted directly from "R" or "D" position to "N" position.
- When moving the gearshift lever out of "N" position, you need to depress the brake pedal.

## **AWARNING**

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

## D: Drive gear

- Engage the "D" gear when the vehicle is moving forward. The system will automatically adjust gears according to engine load and driving speed.
- Depress the brake pedal and pull the gearshift lever backward to shift from "P", "N", or "R" position to "D" position.

# **Driving mode**

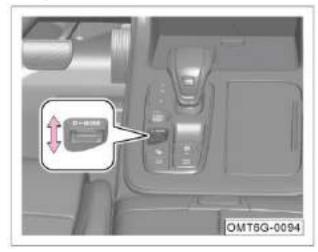
- ECO (energy saving) mode: In this mode, the power is slightly delayed and the fuel consumption is more economical.
- COMFORT mode: In this mode, power response and fuel consumption are relatively balanced.
- SPORT mode: In this mode, the power response is quick and the fuel consumption is higher.
- OFF ROAD SNOW mode\*: This mode is suitable for driving on snowy roads. (4WD)
- OFF ROAD SAND mode\*: This mode is suitable for driving on sandy roads. (4WD)
- OFF ROAD MUD mode\*: This mode is suitable for driving on muddy roads. (4WD)

When switching to Snow Mode\*, Sand Mode\* and Mud Mode\*, a prompt will be displayed on instrument cluster module/ note "Current mode prohibits driving on paved roads."

## CAUTION

In some cases, the driving mode may automatically jump. For example, in the energy-saving mode, when the vehicle is climbing a steep slope or the power is insufficient, the vehicle will automatically jump to the comfort mode.

## Driving mode selection



Put the vehicle power in the "ON" gear, and switch the driving mode (D-MODE) toggle switch up/down to driving mode through the target driving modes: "ECO Mode→ Comfort Mode → SPORT Mode → Snow Mode\* → Sand Mode\* → Mud Mode\* → ECO Mode..."

 Through AV system, click the driving control panel display on the bottom toolbar ≈ to view driving mode or select driving mode.

## **i** NOTE

Press the return button on AV system or leave it for a few seconds without any operation to exit the driving control panel interface.

By turning the driving mode (D-MODE) toggle switch on the center console, AV system pops up the "Driving Mode" interface, and click "Current Driving Mode Setting" to set the current driving mode parameters.

## **i**NOTE

If you want to memorize driving mode, you need to set "Memorize current driving mode" to on system settings. Driving mode will be used by default the next time start the vehicle.

## Steering wheel paddle shifters\*



When the vehicle is driving normally, the driver can shift up or down by turning the shift paddles on the steering wheel:

- ① Downshift paddle: downshift.
- ② Shift up paddle: shift up.

# 5.2 Brake system

## 5.2.1 Service brake

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

## **CAUTION**

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

## **i** NOTE

- Do not rest your foot on the brake pedal during driving, otherwise the brake will heat up to an abnormally high temperature, and the brake linings and brake discs will wear excessively, increasing the braking distance.
- When driving down a long or steep hill, downshift the transmission to gear (manual mode) \* and avoid continuous application of transmission. This allows full utilization of engine and reduces the brake load.
- Continuous application of the brake will cause the brake overheat and result in a temporary loss of braking performance.

## iNOTE

- Under normal driving conditions, brake linings will wear, and dust will accumulate on wheels, which is inevitable but yet has no effect on the braking performance.
- If rust and corrosion exist because the brake linings and brake discs are not used or used rarely, noise may be heard from brakes for the first use. This is normal. It is recommended that braking be carried out several times in a safe area and under good road conditions to clean the brake linings and brake discs.

#### **Brake booster**

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

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

## **AWARNING**

- Never turn off the vehicle and let it coast on inertia, as this can easily lead to an accident! Because the brake booster does not work at this moment, the braking distance will be greatly increased.
- If the brake booster does not work (for example, when the vehicle is being towed), please depress the brake pedal with force much greater than that applied under normal condition.

## Braking effect and braking distance

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

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

After wading through water, during heavy rain, or after washing the vehicle, the brake linings may become damp or freeze (in winter), leading to reduced braking performance. In this case, it is necessary to gently press the brake pedal to generate heat through the brake friction, evaporate the moisture, and restore braking effectiveness.

## **AWARNING**

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

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

## **AWARNING**

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

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

## **AWARNING**

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

- Take care to avoid overheating brakes.
- When the vehicle is descending, the load on the brakes increases, making it more susceptible to overheating.
- Before driving down a steep slope for a long distance, it is recommended to shift into a low gear (manual mode)\* to reduce the vehicle speed, make full use of the braking effect of the engine, and reduce the load on the brakes.
- Do not keep depressing the brake pedal. Otherwise, the brake will overheat and the braking distance will increase. Brake the vehicle intermittently according to road and traffic conditions.

## **AWARNING**

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

# 5.2.2 Electric park brake system/EPB system (EPB)

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

### CAUTION

The EPB will choose a fixed force to park according to the slope.

- If the vehicle slides down after parking on a slope, the EPB will automatically increase the brake force.
- If the vehicle continues to slide down after the brake force is increased, please depress the brake pedal and drive the vehicle to a flat road. Please contact the GAC Motor authorized shop for inspection and repair in time.

## Application of static parking brake



- When the vehicle is stationary, pull up the EPB button in the direction of the arrow. The button indicator lamp and the indicator lamp on the instrument cluster will come on, indicating that the EPB has been applied.
- When the gearshift lever is moved from a non-"P" position to the "P" position, the electric park brake (EPB) will be automatically applied.
- The electronic parking brake will automatically apply when the vehicle is power off.

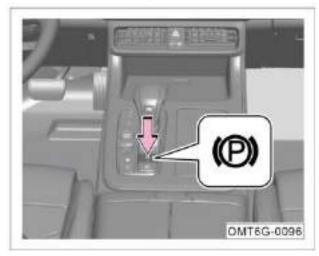
## **i** NOTE

- When the vehicle power is in the "OFF" gear, the electric park brake (EPB) can also be applied.
- After the vehicle is parked steadily, the EPB should be applied first.
- When EPB is applied, running noise will be generated, which is normal.
- On the slope, five minutes after the first application of EPB, it will be clamped again, and running noise will be generated at this moment, which is normal.
- Be sure to apply the EPB during parking.

## **∆**WARNING

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

## Release static parking brake

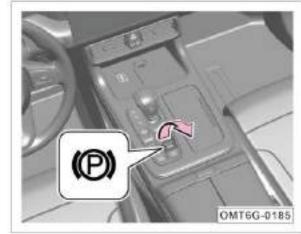


- When the vehicle power is in the "ON" gear, press brake pedal.
- Press the EPB button, and the button indicator lamp and (P) the indicator lamp on the instrument cluster will go out, indicating that the EPB has been released.

### **i** NOTE

- When in the "P" gear, the EPB cannot be statically released, and the instrument panel will give an alarm reminder.
- If the brake pedal is not pressed and the EPB button is pressed, the electronic parking brake will not release, and the instrument cluster information display will display a warning message accompanied by a beeping alarm.
- When the EPB is released, running noise will be generated, which is normal.
- When the vehicle's battery power is insufficient, the system cannot release the electric park brake. If conditions allow, use jumper cables for emergency starting, then proceed to release the parking brake. Please contact a GAC Motor authorized shop for inspect and repair.
- If the electric park brake (EPB) is not used for an extended period, the system will automatically perform a check, and you may hear operational noise.

# Application of dynamic emergency braking



While the vehicle is moving, continuously lift arrow in the direction of the arrow to achieve dynamic emergency braking. If pedal is depressed during emergency braking, the system will disengage braking. If emergency braking is triggered due to non-driver operation, press the accelerator pedal deeply and repeatedly to release pedal.

## **i**NOTE

- When the vehicle is running, if the EPB system button is pulled up, the instrument cluster display will give an alarm message, together with a beep alarm.
- During the application of dynamic emergency braking, if the EPB is released or the accelerator pedal is depressed, the parking brake will be released again. If the EPB button is continuously pulled up until the vehicle stops, the parking brake will remain engaged.

## **CAUTION**

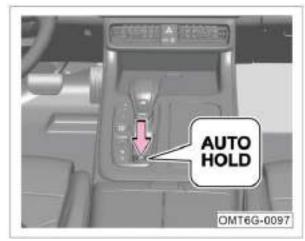
Do not use dynamic emergency braking unless necessary, as it is likely to cause traffic accidents. Moreover, the braking distance is longer than braking by depressing the brake pedal, and the service life of the EPB system will be shortened.

## **◆**CAUTION

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

- If the indicator lamp occurrence to flash red, it indicates that the electric park brake is in a partially engaged/released state or that there is a system fault.
- If the indicator lamp occursion on red without the electric park brake being applied, it indicates a system malfunction.
- If the indicator lamp comes on yellow, it indicates that an electronic system fault has been detected, resulting in reduced functionality of the electronic parking brake (EPB).

# AUTO HOLD On and Off



When the vehicle is started, the driver's door is closed, and the driver's seat belt is fastened, pressing the AUTO HOLD button will cause the button indicator lamp to come on, activating the AUTO HOLD function. Press the button again, so that the button indicator lamp goes out, and the AUTO HOLD function is turned off.

#### Activation

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

#### Exit

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

- 1. Depress the accelerator pedal when starting.
- 2. The engine stops while vehicle is driving.
- 3. Press pedal and manually release EPB.
- 4. The AUTO HOLD button is pressed when the brake pedal is depressed.

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

- 1. Vehicle power off.
- 2. The driver's side door is opened, or the seat belt is unfastened when the vehicle is stopped.
- 3. The AUTO HOLD button is pressed to disable AUTO HOLD.

## **CAUTION**

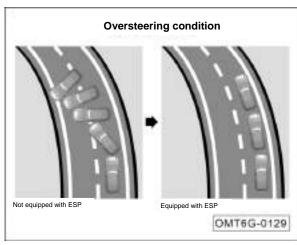
When driving into a mechanism such as a vehicle washing device that transports the vehicle with a conveyor belt, be sure to disable the AUTO HOLD, otherwise the vehicle cannot move or may run off the path.

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

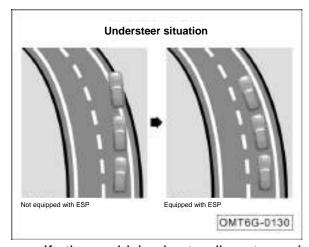
ESP can effectively reduce the risk of sideslip.

The ESP system determines the driver's intention based on information such as steering wheel angle and vehicle speed, continuously comparing it with the actual driving conditions of the vehicle. If the vehicle deviates from the normal driving route (such as sideslip), ESP will correct it by applying brake force to the corresponding wheels.

The ESP restores the vehicle to a stable driving state by generating rotational force through braking.



 If the vehicle is prone to oversteering (i.e., fishtailing), the ESP system primarily applies brakes to the front wheel on the outside of the curve.



- If the vehicle is tending towards understeer (i.e., a larger turning radius), the ESP system primarily applies braking to the inner rear wheel of the curve.
- When a vehicle without ESP experiences sideslip and deviates from its normal driving path, a vehicle equipped with ESP can adjust the brake force based on the amount of sideslip to prevent deviation from the route.

### On and Off

ESP is on by default when the vehicle is running. Access the AV system interface, click the driving control panel button on the bottom toolbar to enter the driving control panel, and tap the 'BCM' soft key to disable the ESP. At this time, the indicator lamp on the instrument cluster module will come on and display an alarm message.

The ESP electronic stability system is only active when the vehicle is in operation. For safety during driving, the electronic stability system ESP should be enabled. The ESP function can be disabled under the following special circumstances:

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

### **CAUTION**

Improper operation or modification of the vehicle (e.g., modifications to the brake system or components affecting wheel and tire performance) will impact the functionality of the electronic stability program (ESP).

## **∆**WARNING

- Be sure to adjust your speed according to weather, road, and traffic conditions. Do not take risks by relying on the additional safety features provided by the system, as this may lead to a traffic accident.
- ESP cannot exceed the physical limits of road traction; extra caution is particularly necessary when driving on slippery surfaces or towing a trailer.
- The driver should adjust the driving style at any time according to the road and traffic conditions.
- ESP cannot reduce the risk of accidents that may arise from improper driving behaviors, such as excessive speed or following too closely.

## **Traction control system (TCS)**

TCS, or the traction control system, is a traction control system that determines whether the driving wheels are slipping based on the rotation speeds of the driving wheels and the driven wheels. When the rotation speed of the driving wheels exceeds that of the driven wheels, it suppresses the rotation speed of the driving wheels to prevent slipping. When the vehicle brakes on a smooth road, the wheels will slip, even making the direction out of control. Similarly, during starting or rapid acceleration, the driving wheels may also slip, which can lead to a loss of steering control and pose a danger on slippery surfaces like ice and snow. 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 brake system (ABS)

The anti-lock brake system (ABS) is an active safety device. When the vehicle is braking, if the front wheels are locked, the vehicle will be unable to make a turn. The driver cannot perform the necessary steering maneuvers to avoid obstacles, pedestrians, and navigate curves during braking. If the rear wheels lock up, the vehicle's braking stability deteriorates, and even a small lateral force (such as crosswinds) can cause the car to skid, potentially leading to a spin or other dangerous situations. In addition, when the wheels are locked, local severe friction of tire will significantly shorten the tire life.

The anti-lock brake system (ABS) installed in the vehicle adds an electronic control device to the existing brake system. Its function is to automatically adjust the wheel brake force during the vehicle's braking process, preventing wheel lock-up and thereby achieving optimal braking performance, significantly enhancing 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 wheel anti-lock electronic control system and ordinary brake system. The anti-lock electronic control system consists of the sensor, the control unit and the actuator.

## ABS anti-lock braking system self-diagnosis

The ABS anti-lock system control unit has self-diagnosis and failure protection functions. When the vehicle power is set to 'ON,' the system performs a self-test. If the system is not functioning correctly, the ABS indicator lamp remains on, and the ABS operation is terminated, reverting to conventional braking. It is recommended to visit a GAC Motor authorized shop for inspect and repair as soon as possible.

### **i** NOTE

- Improper operation or modification of the vehicle (such as modification of the braking system or components that affect wheel and tire performance) will affect the function of the ABS.
- Tires must be of specified size. If the tire size is incorrect, or if all tires are of inconsistent size, ABS will not work effectively.

## **⚠** WARNING

Be sure to adjust your speed according to weather, road, and traffic conditions. Do not take risks by relying on the additional safety features provided by the system, as this may lead to a traffic accident.

## 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 vehicle load during normal braking.

# Hydraulic brake assist (HBA)

The hydraulic brake assist (HBA) system can help the driver perform emergency braking; it determines the need for full braking based on the speed at which the driver presses the brake pedal. As long as the driver keeps the pedal pressed to the bottom, the system will automatically increase the brake force until the ABS activation threshold is reached. If the driver relaxes the brake pedal, the system will reduce the brake force to the specified value.

### **∆**WARNING

HBA can improve your driving safety, but it is still subject to the limitations of laws of physics. Please adjust your driving speed according to the road conditions and traffic regulations.

## 5.3.3 Hill-start hold control (HHC)

The hill-start hold control (HHC) system is an active safety system that is an extension of the electronic stability program (ESP) system through software enhancements. It is primarily designed to assist the driver in starting smoothly on steep slopes.

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

When starting on a slope, the system prevents the vehicle from sliding backwards during the interval between releasing pedal (pedal maintains the current position for a certain period of time) and pressing the accelerator pedal, thereby improving the safety and reliability of the vehicle's slope starting.

## **Working conditions**

- The accelerator pedal is not pressed.
- The vehicle is stationary.
- The EPB 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 HAC is activated.

## 5.3.4 Hill descent control (HDC)

HDC is a value-added function of electronic stability program that improves vehicle comfort. The HDC function can be activated or deactivated by pressing the HDC button. The main function of HDC is to help the driver go downhill at a low speed by actively braking. When the HDC system detects wheel slip, ESP actively intervenes to help the driver go downhill safely and smoothly.

#### On and Off

The vehicle power is in the "ON" gear, enter AV system, click the driving control panel button 
in the bottom toolbar to enter the driving control panel, click "Steep Slope Descent" soft key, and the hill descent control/HDC (HDC) is turned on. When the system is working, indicator lamp is on or flashing, and information display is accompanied by note "HDC is working". If a fault occurs in hill descent control (HDC), buzzer sounds and information displays a text warning "Please inspection HDC".

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

After activating the HDC function, the vehicle will travel at a minimum speed of 8 km/h when driving downhill and maintain this speed.

In addition, the driver can adjust the vehicle speed by pressing accelerator pedal or brake pedal. If the vehicle speed is (8~35) km/h when the driver releases pedal, the HDC function will be triggered again and maintain the vehicle's current speed to continue driving downhill.

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

### **i** NOTE

- When the HDC has a fault, the function is deactivated and an alarm message is displayed on the instrument cluster display with an audible alarm lasting for about five seconds. At this time, HDC will not work properly. The driver should not use the system forcibly to go down the steep slope. He should step on brake pedal to slow down and go to GAC Motor authorized shop for inspect and repair as soon as possible.
- In some special environments, the HDC enters the thermal protection mode due to too high braking temperature. For example, when the system operates at a high ambient temperature for a long time, the temperature of the brake system constantly increases due to friction. When the upper limit of temperature has been reached, the HDC function enters the thermal protection mode (i.e., the HDC function is active but inoperative, HDC temporarily losing its function), and the vehicle shows signs of acceleration. When the temperature of the brake system drops to the level where the brake system can work effectively, HDC resumes normal operation.

# 5.3.5 Hydraulic boost failure compensation (HBC)

When the vehicle's vacuum booster fails, the HBC function can compensate for the temporary vacuum deficiency caused by the vacuum failure and increase the brake pressure. At the same time, an alarm message will be displayed on instrument cluster module. Please contact GAC Motor authorized shop for inspect and repair as soon as possible.

## 5.4 Driver assistance systems

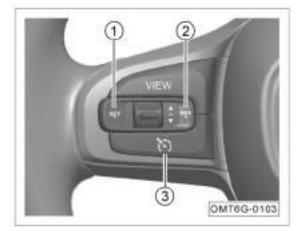
## 5.4.1 Cruise control system (CCS)\*

CCS can set the vehicle speed at (40~120) km/h. After setting the stored vehicle speed, the driver does not need to depress the accelerator pedal, and the vehicle will run at the set speed.

## **∆**WARNING

- Do not use CCS when driving on highdensity traffic sections, uphill, multicurve sections or wet roads to prevent accidents.
- Use cruise control system with caution.
   After setting the speed, make sure your vehicle can maintain a safe distance from the vehicle in front.
- After exiting the cruise state, the cruise control system should be turned off promptly.
- CCS is only used to assist driving and cannot replace automatic driving. The driver must drive vigilantly and control the vehicle.

#### **Control buttons**



SET/-: Activating CCS/deceleration
 RES/+: Resuming CCS/acceleration

③ : Turning on/off CCS

## **Turning on CCS**

- Press the button to turn on the CCS, and the white indicator lamp on the instrument cluster will come on.
- Increase the speed to more than 40 km/h.
- Press the button SET/- and the indicator lamp on the instrument cluster will turn green, and the vehicle will enter the CCS status.

# **Deactivating CCS**

CCS can be deactivated by:

- Press the brake pedal.
- Pressing the button (after that, CCS will be deactivated, and the set speed will be cleared).
- Turning on the ESP.
- Gear into "N" gear

## **Resuming CCS**

When pedal, indicator lamp in instrument cluster module \( \frac{1}{2} \)/ICM turns white. Press RES/+ button to restore:

When the vehicle speed is higher than 40 km/h, press the button RES/+, the indicator lamp on the instrument cluster will change from white to green, and the speed will return to the speed set during the last cruise.

## Increase the cruise speed

- Press the RES/+ button; each time the button is pressed, the vehicle speed increases by 1.0 km/h.
- Press and hold the RES/+ button to increase the vehicle speed until the button is released.

## **i** NOTE

- The maximum settable cruising speed is 120 km/h. When the speed is higher than 120 km/h, it can no longer be adjusted by RES/+ button.
- When the accelerator pedal depressed for acceleration, the vehicle will temporarily exit the CCS and drive at the accelerated speed. After the accelerator pedal is released, the vehicle will resume the CCS.

## **Decreasing cruising speed**

- Press the button SET/-; each time the button is pressed, the vehicle speed reduces by 1.0 km/h.
- Press and hold the SET/- button to decrease the vehicle speed until the button is released.

## **i** NOTE

When the vehicle speed is lower than 40 km/h, it can no longer be adjusted by the SET/button.

## 5.4.2 Adaptive cruise control (ACC) system

The adaptive cruise control, abbreviated as ACC, can automatically adjust the following distance to the vehicle ahead while cruising. Applicable cruise speed: (0~130) km/h (applicable to non-Middle East regions)/(0~150) km/h (applicable to Middle East regions).

ACC detects the relative distance and speed with the vehicle ahead on the same path according to the MMW radar installed on the front of the vehicle and the intelligent front camera (IFC) installed on the windshield.

- When there is a vehicle ahead, if the vehicle in front comes to a stop, ACC controls the host vehicle to automatically stop in line with the front vehicle; if the front vehicle starts moving again, ACC controls the host vehicle to automatically start moving again within a short period. After following for a certain period, you can pull up the multifunction "OK" lever or press the accelerator pedal to resume following and start moving.
- When there is a vehicle ahead and its speed is lower than the target speed set by the driver, ACC controls the vehicle at a safe distance from the vehicle ahead.
- When there is no vehicle ahead, ACC controls the vehicle to travel at the target speed set by the driver.

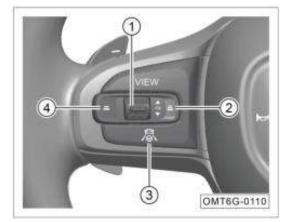
### **i** NOTE

Precautions for use of radar and IFC sensors. => See page 174

### **△WARNING**

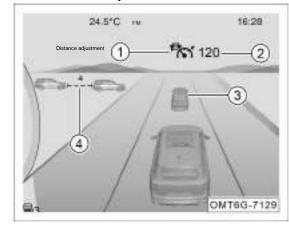
- ACC is not a safety system, obstacle detector, collision warning system, or collision avoidance system; it is a comfort system. The driver must always maintain control of the vehicle and bears full responsibility for it.
- The ACC must be used cautiously according to the visibility, weather conditions, road and traffic conditions at the time. The driver must always keep control of the vehicle and take full responsibility for the speed of the vehicle and the distance from other vehicles.
- The ACC system cannot replace the driver's attention and judgment. The driver must always be responsible for ensuring that the vehicle is traveling at a safe speed and maintaining an appropriate distance from other vehicles.

### **Control buttons**



- 1 : Multi-function "OK" lever
- Restore ACC/acceleration (up-toggle)
- Confirmation/Setting (Press)
- Deceleration (down-toggle)
- 2  $\blacksquare$  : Distance increase button for following vehicle
- 4 = : Distance decrease button for following vehicle

## Interface description



When ACC is activated, the instrument interface automatically switches to the intelligent driving theme. When in the intelligent driving theme interface, the buttons on the left side of the steering wheel respond as follows:

- 1 ACC indicator lamp:
- The adaptive cruise indicator lamp strong on gray indicates that ACC is in a suppressed or standby state with a target vehicle ahead; the adaptive cruise indicator lamp strong on blue indicates that ACC is operational with a target vehicle ahead.
- The adaptive cruise indicator lamp scoming on gray indicates that ACC is in a suppressed or standby state with no target vehicle ahead; the adaptive cruise indicator lamp coming on blue indicates that ACC is operational with no target vehicle ahead.

- The adaptive cruise indicator lamp coming on yellow indicates a fault in the ACC; you should promptly visit a GAC Motor authorized shop for inspect and repair.
  - (2) Indicates the set cruising speed.
  - (3) It indicates the detected vehicle ahead.
  - (4) Set cruising distance to the vehicle ahead.

## 5. Driving Guide

When the braking ability of the ACC is insufficient to maintain a proper distance from the vehicle ahead, the system will issue a 'Please take over immediately' alert, and the instrument panel will display a warning message along with an audible alarm. At this point, the driver should apply the brake pedal as required by the system to reduce speed.

#### Start ACC

Press the control button briefly, and the corresponding blue indicator lamp
 in the instrument cluster module will come on, indicating that the vehicle has entered ACC control mode.

### **i**NOTE

- The minimum cruise target speed can be set to 15 km/h.
- When the transmission gearshift lever is in other positions than D, ACC cannot be activated.

## **Deactivating ACC**

ACC can be deactivated by:

- Open the driver's side door.
- Unbuckle the driver's side seat belt.
- Press the brake pedal.
- Setting the gearshift lever to a position other than D.
- Press the button (the corresponding indicator lamp on the instrument cluster module turns gray, exiting ACC while retaining the set speed).
- Operate the EPB system buttons.
- Turn off the ESP system.
- When the HDC system is activated.

The following actions can restore adaptive cruise mode by toggling the multifunction 'OK' lever upward:

- Depressing the brake pedal.
- Press button <a>る。
- Gear is in a non-forward gear (requires gear to be in D).
- Operating the EPB button (the EPB should be released).
- Turn off the ESP system (it must be reactivated later).

#### Resume the ACC

When the corresponding indicator lamp on the instrument cluster module is gray, the adaptive cruise control function can be reset through the following operations:

- Push the multifunction 'OK' lever toggle up, and the corresponding indicator lamp on the instrument cluster module will come on in blue. The vehicle speed will then be restored to the last set cruising speed memory value, and the cruise control state will be entered.
- If the cruising speed has not yet been stored, the system will set the current speed as the cruising speed (if the current speed is less than 15 km/h, the cruising speed will be set to 15 km/h).

### Increase the cruise speed

To increase the vehicle speed, please do the following:

- Press accelerator pedal and keep it pressed. When the vehicle speed reaches the target, press the multi-function "OK" button to cruise at the higher set speed.
- Briefly pull up the multifunction 'OK' lever; each press increases the speed by 5 km/h.
- Long-press the multifunction 'OK' lever; the cruising speed will increase by 5 km/h continuously until the button is released.

### **i** NOTE

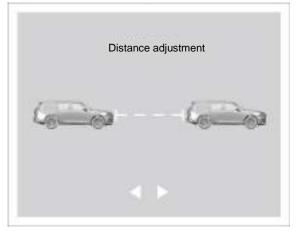
- The maximum cruise speed can be set to 130 km/h (applicable to non-Middle East regions)/150 km/h (applicable to Middle East regions).
- When the accelerator pedal is pressed for acceleration, the vehicle will temporarily exit cruise control system and accelerate according to the driver's intention; once the accelerator pedal is released, the vehicle will resume ACC cruise control and the set cruising speed.

## **Decreasing cruising speed**

To reduce the vehicle speed, do the following:

- Briefly pull down the multifunction 'OK' lever; each press will decrease the speed by 5 km/h.
- Long press the multifunction 'OK' lever; the cruising speed will continuously decrease by 5 km/h until the button is released.
- During cruising, press the steering wheel button (ACC exits), coast or gently brake to the target speed, then press the button (S) briefly to cruise at the target speed.

## Adjust ACC following distance.



After the vehicle power supply button is set to "ON" position, when the system is activated, the default distance from the vehicle ahead is in the fourth range (the distance from the vehicle ahead in the fourth range is the longest).

By pressing the button =  $\equiv$ , you can switch the following distance gear relative to the preceding vehicle, with each press changing to the next position in the order of 'First  $\rightarrow$  Second  $\rightarrow$  Third  $\rightarrow$  Fourth' and 'Fourth  $\rightarrow$  Third  $\rightarrow$  Second  $\rightarrow$  First'. At the same time, the instrument cluster will display the same number of crossbars as the ordinal number of the gear.

## **Activating ACC after following stop**

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

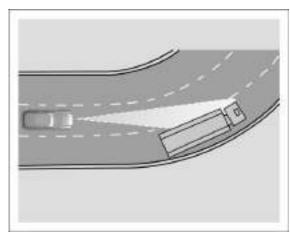
- 1. If the adaptive cruise indicator lamp of is blue, after the preceding vehicle departs, the ACC can actively resume and drive the vehicle again.
- 2. If indicator lamp come on gray and EPB is not started, the instrument displays "cruise", the driver can restore ACC and drive cruise again by pressing the multi-function "OK" button or pressing pedal.
- 3. If the adaptive cruise indicator lamp comes on gray and the EPB is engaged, the driver must first release the EPB. Once the EPB is released, toggling the multifunction 'OK' lever up will allow the ACC to resume and drive the vehicle again.

# **System limitations**

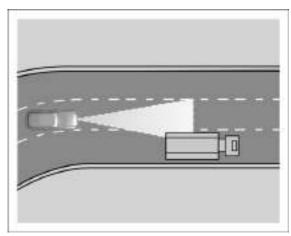
ACC is limited by physical laws and has certain system limitations. In some driving environments, the driver may feel that the ACC response is lagging or fails to control the vehicle as expected. Therefore, the driver must be ready to control the vehicle at any time.

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

1. Decelerating to stop. If the vehicle in front performs an emergency braking and stops, the ACC will also decelerate or issue a note to take over. The driver must actively intervene in braking based on the note to take over, bringing the vehicle to a complete stop.

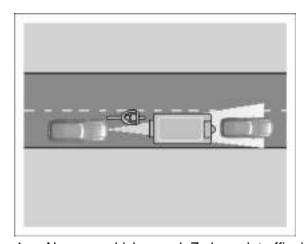


2. Driving through the curve. When driving through a curve, the radar sensor may not catch the vehicle ahead or may not be able to react to the vehicle in the adjacent lane. In this case, ACC may brake the vehicle, reduce its speed, or fail to respond to the vehicle in front. You can exit the ACC system by pressing brake pedal or manually canceling ACC.

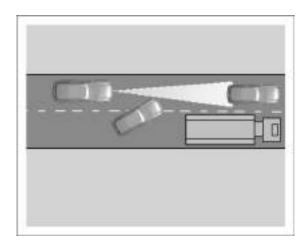


 Drive out of the curve. During driving out of a long curve, as ACC will calculate the lane in advance, the radar sensor may respond to the vehicles in adjacent lanes and apply the brake of your vehicle. This braking process can be interrupted by pressing down on the accelerator pedal.

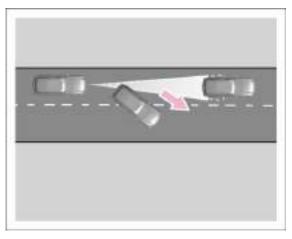
## 5. Driving Guide



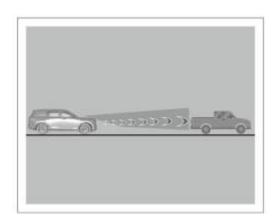
4. Narrow vehicles and Z-shaped traffic in front. The radar sensor can only detect narrow vehicles in front or vehicles traveling left or right when they enter the detection range of the MMW radar, while the system cannot recognize vehicles outside the sensor's detection range. The ACC system has difficulty recognizing narrow vehicles such as motorcycles. Additionally, there is a risk that the ACC system cannot accurately identify the distance to modified vehicles and those with irregular transport; therefore, it is not recommended to use such vehicles as target vehicles in front.



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



 If the target vehicle in ahead is driven out suddenly and a stationary vehicle appears at close range, the radar sensor and brake actuator will have a response lag, causing delayed braking response.



7. ACC should not be used in urban traffic congestion or in conditions of poor visibility (such as at night, in backlight, rain, snow, or dense fog) The ACC system may not apply braking measures for pedestrians or animals, narrow vehicles such as bicycles, motorcycles, or e-bikes, low-profile tow trucks, approaching or stationary vehicles, and slow-moving or stationary trucks/small pickups. The driver needs to remain particularly vigilant and be ready to take over the vehicle at all times.

- 8. Influencing factors that may deteriorate the sensor function.
- Torrential rain, fog, ice and snow, or mud can all impair the function of the MMW radar sensor, leading to a temporary shutdown of the ACC. At the same time, the instrument cluster display shows the following text messages: 'Medium range radar is obstructed' and 'Cruise operating conditions not met.' At this time, the ACC and forward collision mitigation (FCM) system are unable to function.
- In low-temperature and high-altitude areas, due to temperature differences or frost, the front windshield glass may become frosted or fogged, obstructing the view of the intelligent front camera (IFC) sensor. The instrument cluster display will then show the following text messages: 'IFC view obstructed' and 'Cruise operating conditions not met.' At this time, the ACC and forward collision mitigation (FCM) system are unable to function.
- 9. Brake overheating. If the brake becomes overheated due to emergency braking or when the vehicle descends a steep slope, the ACC will temporarily turn off, and the instrument cluster display will show the following text message: 'Cruise operating conditions not met.' After that, ACC can no longer be activated. The ACC can only be reactivated when the brake temperature drops to a reasonable degree.

#### **i**NOTE

- Never bump against the radar sensor. If the sensor is misaligned due to bumping, the system performance will still deteriorate even after correction and even the system will be shut down.
- If the surface of the radar sensor or intelligent front camera (IFC) sensor is dirty or covered by heavy rain, ice and snow, or mud, the ACC may not function, and the instrument cluster display will show the following notes: 'Medium range radar is obstructed' and 'IFC view obstructed.' After the dirt is cleaned off the sensor surface, ACC function will be reset and return to normal.
- Do not spray the front bumper with car paint at will, as this may cause a decrease in MRR sensor performance.
- ACC will not respond to people, animals and vehicles crossing laterally or driving towards the vehicle in the same lane.

## **i** NOTE

- When driving through crossroads, speed bumps, steep roads and zebra crossings, or at changing lanes, highway access, ramps or construction sections, it is required to exit ACC for manual driving, lest the vehicle should be automatically accelerated to the set speed, causing traffic accidents.
- The ACC system can automatically drive the vehicle out after a brief stop or upon receiving confirmation from the driver (via the control button or accelerator pedal). During this time, the driver must ensure that there are no obstacles or other road users, such as pedestrians or bicycles, directly in front of the vehicle.
- If the ACC fails to function properly, do not continue using it; it is recommended to promptly visit a GAC Motor authorized shop for inspect and repair.

#### **i** NOTE

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

#### **i** NOTE

- When ACC is on, the ACC status displayed by the instrument cluster display may be overwritten by other functions (e.g., during a call).
- After ACC is activated, when the system automatically applies braking to the vehicle, there will be a sound different from manual braking, or the brake pedal will automatically press down, which is a normal phenomenon. This sound and the pedal movement are caused by the operation of the brake system, so there is no need to worry.
- After the vehicle is completely powered off, the stored cruise speed will be deleted.
- You can press down on the accelerator pedal at any time to increase the speed.
   Once you release the accelerator pedal, the system will revert the speed back to the previously set cruising speed.
- If the vehicle enters a tunnel, the radar sensor and IFC may enter the blind mode, and ACC may be turned off temporarily.

#### **△WARNING**

- The ACC function cannot address all driving scenarios and traffic, weather and road conditions.
- The ACC function is only a driver assist function. And cannot replace your attention and judgment. It is your responsibility to maintain a safe distance and speed, and you must be ready to intervene if the ACC fails to maintain a proper speed or distance from the vehicle ahead.
- For safety reasons, do not use ACC in urban driving, traffic congestion, winding roads, and poor road conditions (such as icy surfaces, fog, loose gravel, heavy rain, and the potential for hydroplaning).

#### **AWARNING**

- Do not use ACC when driving in roadless areas or on dirt roads. ACC can only be used on flat paved roads such as asphalt and cement.
- The hands-on reminder of ACC only warns the driver of vehicles detected by its radar and IFC sensor, so ACC may not send an alarm, or may send an alarm after a certain delay. Never wait for an alarm to be given and step on the brake when the situation requires.
- The ACC is not a collision avoidance system. If your vehicle is getting closer and closer to the vehicle ahead at a speed higher than that of the vehicle ahead and the braking effect of ACC is unable to stop the vehicle safely before a collision with the vehicle ahead, the driver must depress the brake pedal to reduce the vehicle speed.

#### **AWARNING**

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

- Large speed difference with the vehicle ahead.
- Driving in different lanes, lane changes or driving on curves with small radius.
- Pedestrians, animals, bicycles, stationary vehicles, unexpected obstacles, etc.
- Complex traffic conditions.
- Oncoming traffic or cross traffic.
- Low tow trucks, trucks or vehicles with irregular/irregular 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.

## 5.4.3 Integrated cruise assist (ICA) system\*

Integrated cruise assist is abbreviated as ICA. ICA can automatically adjust the distance to the vehicle in front and keep the vehicle in the center of the lane when cruise (hereinafter referred to as "steering assistance"), and can be applied at cruise speeds of (0~130) km/h (applicable to non-Middle East regions)/(0~150) km/h (applicable to Middle East regions).

ICA detects the relative distance and speed between the vehicle and other vehicles on the path ahead using the MMW radar installed at the front of the vehicle and the intelligent front camera (IFC) mounted on the front windshield, as well as the lane markings on the road detected by the intelligent front camera.

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

## **i** NOTE

Precautions for use of radar and IFC sensors. => See page 174

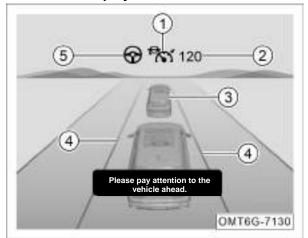
## **Operation instructions**

- When the vehicle power is in the "ON" gear, enter AV system settings and select "cruise" to turn on the ICA function, and select "adaptive cruise" to turn off the ICA function.
- After selecting Integrated Cruise Assist, you can activate the ICA by operating it in the same manner as the ACC. => See page 134

## iNOTE

- The cruise control mode can be switched when ACC is turned off/on or activated.
- When ICA has a specific fault not affecting 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 work normally.
- ICA has a cruise control mode memory function. After the vehicle is started, the cruise control mode will be the same as that before vehicle power-off last time.

## Instrument display



- 1 ACC indicator lamp:
- The adaptive cruise indicator lamp coming on gray indicates that ACC is in a standby state with a target vehicle ahead; the adaptive cruise indicator lamp coming on blue indicates that ACC is operational with a target vehicle ahead.
- The adaptive cruise indicator lamp of glowing gray indicates that the ACC is in a standby state with no target vehicle ahead; the adaptive cruise indicator lamp coming on blue indicates that the ACC is active with no target vehicle ahead.

 When the system does not detect valid lane markings, it will not display; when detected, it will show gray, and when the ICA function is activated or the lane departure assist (LDA) steering function is engaged, it will display blue. When the lane departure assist (LDA) warning is triggered, it will display red. If a gray ICA indicator lamp appears on the display, it indicates that the ICA function is activated and in standby mode. At this point, simply follow the ACC activation procedure, and the vehicle will activate the ICA function, coming on the blue ICA indicator lamp.

The ICA function relies on lane marking set on the road surface. After the ICA function is turned on, indicator lamp may still be gray. After the system detects a valid lane marking, indicator lamp will be automatically activated and the steering assist indicator light will turn blue.

Before activating the ICA, please pay attention to the following caution; otherwise, the function cannot be activated, and the display will show a note indicating that the cruise control function conditions are not met. For more precautions, refer to the ACC section. => See page 134

- Close the car door.
- Fasten the seat belt correctly.
- The vehicle is in drive gear.
- Release the brake.

## Interrupt steering assist

The following operations can temporarily interrupt the ICA function's steering control of the vehicle:

- Keep turning steering wheel.
- Turn signal lamp is turned on.
- Turning on the hazard warning lamp.
- Manually changing lanes.

Performing the above operations will cause the steering assist indicator lamp on the display to change from blue to gray , indicating that the steering assist has been temporarily deactivated. Once the above operations are stopped, the ICA function will automatically resume when conditions are met.

## Steering assist

In AUTO mode, the ICA will automatically activate when valid double lane markings are detected and the ACC is enabled.

The ICA function will keep the vehicle driving in the center of the lane markings on both sides.

The ICA function will be suppressed and issue a horizontal assist function prompt under the following circumstances:

- There are no lane markings on the road or the lane markings are unclear.
- The curvature of the lane markings is too high (sharp turn).
- The takeover prompt is given by the system when driver's hands are off the steering wheel for a long time.
- The lane is too wide or too narrow.
- The vehicle speed is higher than 130 km/h (applicable to non-Middle East regions)/150 km/h (applicable to Middle East regions).

## **i** NOTE

When the steering assist is in effect, the driver can still turn the steering wheel to control the vehicle. When the driver feels that the torque applied by the system is improper, he/she can control and drive the vehicle as his/her attention at any time.

## Hands-on detection and prompt.



When the ICA detects that the driver has been without hands on the steering wheel for an extended period, the system will issue a takeover prompt. There will be flashing hands above the ICA indicator lamp, along with a text prompt. If the driver still does not take over, the note will be upgraded and instrument cluster module/ICM will display the above picture accompanied by an alarm sound.

The driver shall hold the steering wheel with hands immediately after receiving the takeover prompt. Do not panic and avoid turning the steering wheel sharply unnecessarily. When the ICA detects the hand torque applied to the steering wheel, it can recognize that the driver holds the steering wheel with hands, and the takeover prompt is canceled. The ICA function is automatically reactivated.

Pay attention that if the takeover prompts for the steering wheel is issued and the driver does not take over for a period of time, the steering assist function of the ICA will be interrupted.

#### **i**NOTE

- When the ICA function is activated and the vehicle is about to cross the line, note "Please take over immediately" will be given on the instrument panel.
- The condition that the driver's hands are lightly holding the steering wheel may be misinterpreted by the ICA 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. Afterward the hands-on reminder will disappear.



The ICA can only utilize the limited braking capability of the driving brake system. When the system requires driver intervention for braking, the instrument cluster module will display an alarm message accompanied by an alarm sound.

When the driver receives the takeover prompt, he/she should immediately step on the brake pedal for proper braking.

After pressing down the brake pedal, the ICA function will be canceled. If the emergency situation is resolved, and you need to reactivate the ICA, simply press the button on the steering wheel or push up the multifunction 'OK' button to restore the ICA function.

#### Others

To restore the ICA function, adjust the cruising speed and set the following distance, using the same operating methods as with the ACC for starting after stopping behind the vehicle ahead. Please refer to the ACC chapter for details. => See page 134

#### **Functional limitations**

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

The ICA system may incorrectly detect lane markings or fail to detect lane markings altogether, and it may also incorrectly detect target vehicles or fail to detect target vehicles ahead.

Even if the ICA system is activated and indicates it is working, it may be affected, malfunction, or fail to operate under the following conditions:

 Poor visibility due to weather conditions such as rain, snow, fog, or sandstorms.

- Dirt, damage, fog, or obstructions in the area of the intelligent front camera on the front windshield glass.
- Direct sunlight, headlights from oncoming vehicles, or reflections from water on the road can impair visibility.
- Abrupt changes in lighting conditions, such as entering or exiting a tunnel.
- Poor lighting conditions at night.
- Non-standard lane markings.
- Special lane marking colors, such as in construction zones.
- Lane markings are not clearly visible, such as when they are too thin, worn, blurred, or covered by dirt, brake marks, snow, or standing water.
- There are no lane markings, or the color of the lane markings is similar to that of the road surface or curb.
- Projections of isolation strips or other objects on lane markings.
- The distance to the vehicle ahead is too close, or the vehicle ahead is obstructing part or all of the lane markings.
- Construction facilities and other objects obstructing the lane markings.
- There are markings or objects on the road similar to lane markings, such as tire tracks, other markings printed on the road surface, curbs, lane joints, etc.
- The number of lanes increases or decreases.

- Lane markings are complex and intricate.
- More than two lane markings on the left and right sides of the vehicle.
- Too wide or narrow lanes.
- Short-term changing lane markings, such as on-ramps and off-ramps.
- The curvature of the lane markings is too sharp or changes drastically (such as in S-bends).
- Driving on steep, inclined or curved roads.
- The road surface is uneven, icy, or flooded, etc.
- Severe shaking of the vehicle.

The speed assistance of ICA is similar to ACC. For more limitations and operating conditions, please refer to the ACC section. =>See page 134.

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

- The vehicle is overloaded.
- The tire pressure is abnormal.
- The road is uneven.
- There is strong crosswind.
- The driver modifies the parts related to vehicle control.

- The parts related to vehicle control are replaced with non-genuine parts.
- The parts related to vehicle control are improperly assembled.

#### **AWARNING**

- The driver needs to judge whether the operating conditions of ICA can be met in certain traffic environments. In urban traffic, at intersections, on surfaces with water accumulation or snow, during adverse weather conditions, on mountain roads, on undulating roads, and at highway entry and exit points, please do not use ICA. Do not use integrated cruise assistance (ICA) when the vehicle is connected to a trailer.
- Misuse of the integrated cruise assist or negligence may cause an accident, and the driver is always fully responsible for driving, even if the integrated cruise assist system is being used.
- Compliance with traffic safety regulations, and safe and civilized driving are always the responsibility of the driver, even if the integrated cruise assist system is being used.

#### **AWARNING**

- The ICA is only a driving assistance function, which cannot deal with all road, traffic and weather conditions. The driver is always fully responsible for driving, and should always pay attention to the road conditions and actively control the vehicle.
- Before using the ICA, the driver must read through all chapters on this function in the user manual to understand the system limitations of this function.
- The ICA is not a collision avoidance system. When the system is not properly controlled, the driver must intervene in.
- The integrated cruise assist system cannot cover all driving conditions and cannot replace the driver. The driver must always hold the steering wheel and actively control the vehicle. When the integrated cruise assistance system does not provide adequate assistance or provides improper assistance, the driver should intervene promptly.

#### **AWARNING**

The integrated cruise assist system has limitations, such as:

- Inclement weather, lane marking damage and many other reasons may cause missing or false identification of lane markings, so that no steering assistance or unnecessary steering assistance is generated when needed.
- 2. The ICA can only use limited capability of steering system, so it cannot cover all driving conditions.
- 3. The integrated cruise assist system does not operate in all traffic conditions. In situations such as sharp curves with high curvature of lane markings or when encountering sections without lane markings, the lateral assist may suddenly deactivate.

# 5.4.4 Forward collision mitigation (FCM) system\*

The forward collision mitigation (FCM) system uses the MMW radar sensor installed at the front of the vehicle and the intelligent front camera (IFC) mounted on the front windshield glass to detect the relative distance and speed between objects in the path ahead and the vehicle. It assesses the precollision risk level by integrating the driver's other actions (such as pressing the brake pedal or accelerator pedal) and issues alerts to timely remind the driver to take action when a collision risk is detected. If a collision is imminent, the system automatically brakes the vehicle. If the driver is braking but the brake force is insufficient to avoid the collision, the system will automatically increase the braking force to prevent or mitigate the collision.

#### **Detectable objects:**



- Vehicle
- Two-wheelers
- Pedestrian

## iNOTE

Refer to precautions for use of radar and IFC sensors. => See page 174

## Forward collision warning

Detecting objects ahead using the MMW radar sensor installed on the front bumper and the intelligent front camera (IFC) on the front windshield glass, and providing a NOTE to the driver about an imminent collision.

When the forward collision mitigation (FCM) system triggers an alarm, there are three types of alerts:

#### Distance alarm

When the forward collision mitigation (FCM) system triggers a distance alert, the forward collision warning (FCWS) indicator lamp on the instrument cluster will flash, accompanied by a corresponding animation on the display.

#### 2. Approaching alarm

When the forward collision mitigation (FCM) system triggers a pre-alert, the forward collision warning (FCWS) indicator lamp on the instrument cluster will flash, while the display will emit an audible alarm and show an animation.

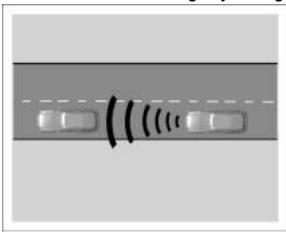
## 3. Short braking

A short brake is triggered when the vehicle is at a high risk of collision with a moving target vehicle, aimed at better alerting the driver to take immediate braking action.

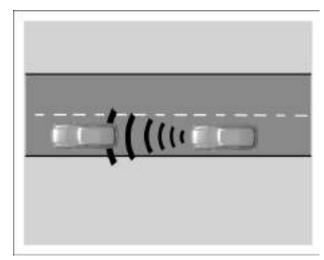
## Autonomous emergency braking (AEB)

The vehicle prepares to enter an emergency braking state for an imminent collision based on the detection of objects in front by the MMW radar sensor mounted on the bumper and the intelligent front camera on the front windshield glass, providing assistance during braking and triggering the autonomous emergency braking (AEB) function.

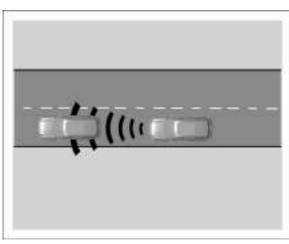
## Levels of autonomous emergency braking



 Level 1 braking: Short braking is applied when approaching the vehicle ahead.



 Level 2 braking: Slight automatic emergency braking is applied in the case of further approach.



 Level 3 braking: Full braking is applied automatically when a rear-end collision is inevitable.

#### On and Off

- When the vehicle power is in the 'ON' gear, the forward collision warning function and the autonomous emergency braking (AEB) are activated automatically.
- The forward collision warning and autonomous emergency braking (AEB) functions can be turned on or off through the AV system settings.
- When turning off the forward collision warning and autonomous emergency braking (AEB), the multifunction touchscreen display will pop up a confirmation window. Click 'Confirm' or 'Cancel' to confirm the switch operation.
- When the vehicle speed is greater than 10 km/h, forward collision warning and autonomous emergency braking function switches on the central control are not allowed to be operated.
- When autonomous emergency braking/AEB turned off, instrument cluster module/ICM come on indicator lamp

## **i** NOTE

- The forward collision warning distance can be set to 'Far,' 'Medium,' or 'Close' through the AV system. The forward collision warning distance has a memory function that recalls the last set warning distance.
- Once the forward collision warning and autonomous emergency braking are turned off, the system will no longer issue alarms or apply brakes for vehicle and pedestrian targets.
- After the forward collision warning or autonomous emergency braking is turned off, when the vehicle power is switched from the 'OFF' gear to the 'ON' gear, the forward collision warning and autonomous emergency braking will default to automatically turning on.

## **System limitations**

The forward collision mitigation system has physical and system limitations. For example, the forward collision warning and autonomous emergency braking functions may be inadvertently triggered or delayed due to driver interference in certain situations. Therefore, the driver must always be alert and take over control if necessary.

The following conditions may cause delays or prevent the forward collision mitigation system from functioning:

- When the front vehicle has a very high ground clearance, such as a semi-trailer, etc.
- The rear of the vehicle ahead is low, such as a low-platform trailer.
- When the front vehicle has an irregular shape, such as a tractor or a dump truck.
- When there is a sudden change in ambient light, such as at the entrance or exit of a tunnel.
- The rear of the vehicle ahead is small, such as an empty truck.
- The detected object ahead makes sudden acceleration or deceleration, or turns.

- When a detectable object suddenly cuts in front of the vehicle.
- When the vehicle in front is a uniquely shaped bicycle, such as a tandem bicycle.
- Driving at extremely high speeds.
- Driving on slopes.
- Driving on narrow curves.
- When the accelerator pedal is pressed down hard or the vehicle accelerates rapidly.
- The assist function is turned off or abnormal.
- The ESP function is manually turned off.
- The vehicle enters ESP control state.
- When the surface of the area where the intelligent front camera is located or the surface of the MMW radar sensor is dirty or obstructed by foreign objects.
- The vehicle is in reverse.
- The vehicle is in chaotic traffic conditions.
- When the vehicle body is towing other vehicles.
- Pedestrians are standing on a traffic island or in a curve.
- When pedestrians are fully or partially obscured by other objects, such as workers carrying a ladder or pedestrians holding umbrellas.

- Pedestrians dressed in unusual costumes or wearing masks, such as carnival attire.
- When visibility is poor, such as at sunset, during the night, in icy or snowy conditions, heavy rain, fog, or backlighting.

Situations that may trigger system activation when no collision is imminent:

- A detectable object pattern is present in front of the vehicle.
- The vehicle is overtaking or changing lanes with a vehicle to the right or left.
- The vehicle is overtaking a vehicle preparing to turn right or left.
- A detectable object is present at the curve entrance.
- The vehicle changes lanes while overtaking a detectable object.
- The vehicle approaches a detectable target on a winding road or while changing its driving route.
- Driving under gantries, billboards, road signs, etc.
- When there are metal objects such as manhole covers or steel plates in front of the vehicle.

- Approaching objects such as utility poles, guardrails, or trees near the roadside.
- When passing through grass, branches, banners, or other objects that may come into contact with the vehicle.
- When driving near objects that reflect radio waves.

## **AWARNING**

The autonomous emergency braking (AEB) function must be turned off in the following situations:

- The vehicle is towed.
- The vehicle is on the hub test bench.
- When the radar sensor or intelligent front camera (IFC) sensor malfunctions.
- External forces (such as rear-end collision) act on MMW radar sensor.

#### **AWARNING**

- The FCM can improve the driving safety, but it is still subject to the limitations of laws of physics, and thus shall never be used for risky driving. The driver must always be ready to apply the brake to reduce the vehicle speed or avoid obstacles.
- The forward collision mitigation (FCM) system only issues warnings and mitigates collisions for vehicles/pedestrians detected by the MMW radar sensor and intelligent front camera (IFC), so it may not respond, or its response may have some delay. Do not wait for the forward collision mitigation (FCM) system to operate; the driver must apply the brake if necessary.
- The forward collision mitigation (FCM) system only provides warnings to the driver to avoid collisions and offers limited braking to reduce collision impact; it cannot autonomously prevent vehicle accidents or injuries to individuals. The driver must maintain full control of the vehicle at all times and is fully responsible for the vehicle's speed and distance from other vehicles.

## **∆WARNING**

- When the FCM is turned on, the driver must always keep control of the vehicle during driving, and take full responsibility for the speed of the vehicle and the distance from other vehicles.
- Never ignore the illuminated warning lamp and instrument display reminders, otherwise traffic accidents and serious injuries may occur.
- Therefore, be sure to pay attention to traffic conditions and do not rely too much on AEB. The AEB is only a driving aid. The driver should be responsible for keeping a proper distance from the vehicle in front, controlling the vehicle speed and braking in time. Prepare for braking or steering if necessary.

## **i** NOTE

- Pressing the accelerator pedal or turning the steering wheel will terminate the forward collision warning alerts and the braking intervention of the autonomous emergency braking (AEB) system.
- In complex driving situations (for example, when the vehicle is running on a circuitous road), FCW and AEB may implement unnecessary alarms and brake interventions.
- When the AEB is triggered, the vehicle will be braked, and the brake pedal may vibrate or become hard, which is a normal phenomenon.
- When affected by factors such as electromagnetic field interference, the target's own reasons or the environment, detection will be interfered and the performance will be degraded.

# 5.4.5 Lane departure system

The lane departure system is designed to reduce accidents caused by unintentional lane departures. The LDW detects lane markings and road edges on the road through the IFC installed on the front windshield, and detects road guardrail through the MMW radar sensor on the front of the vehicle. At the same time, it analyzes the driver's driving behavior and vehicle movement status. When the driver unconsciously makes the vehicle deviate from the lane due to fatigue, distraction, or a phone call, the system issues a warning or intervenes in turning of steering wheel to assist in corrective steering adjustment. Generally, a warning will be issued or turning of steering wheel will be intervened in when the front wheels cross a lane marking or will cross/hit the road edges.

When the driver selects the assist mode as "Steering" or "Steering and Warning" and the lane departure system's operating conditions are met, the system will monitor the torque on the steering wheel. When the driver takes his hands off the steering wheel for a long time, the system will send an alarm to the driver.

#### On and Off

Enable or disable the lane departure assist function through the AV system settings interface.

When the function is enabled, the button will change to the on state, and the lane departure system indicator lamp will illuminate on the instrument panel; when the function is disabled, the button will change to the off state, and the yellow lane departure system indicator lamp will come on.

The system has a switch state memory function. After the vehicle is started, the switch state will be the same as that before vehicle power-off last time.

# Select lane departure assist (LDA) mode

When the vehicle power is in the 'ON' gear and the lane departure assist function is enabled, the lane departure assist mode can be selected through the AV system.

## 1.Steering

 When "Steering" is selected, the system only intervenes in turning of steering wheel to assist in 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 both issue a warning and intervene in turning of steering wheel to assist in corrective steering adjustment.

#### iNOTE

The system has a lane departure assist mode memory function; after the vehicle is started, the lane departure assist mode will be the same as the selection made when the vehicle was last powered off.

## **Alarm prompt**

Lane departure warning alerts are triggered only when the assist mode is set to 'Warning' or 'Steering and Warning'.

When the instrument indicates a speed greater than or equal to 60 km/h and the system detects at least one valid lane marking on either side, la the blue status indicator lamp on the instrument cluster module/ICM will come on. It indicates that the system may issue a lane departure warning at this time. When there is only one lane marking on one side, the system will only provide a warning for that side.

When the indicator lamp | \( \text{a} \) is blue, if the vehicle deviates from the lane under any of the following conditions, the system will not issue a warning, and the blue indicator lamp will turn white.

- The accelerator pedal is quickly depressed for acceleration.
- The brake pedal is slammed for deceleration.
- Turning on the turn signal lamp on the corresponding side.

- Turning on the hazard warning lamp.
- Turning the steering wheel quickly.
- This is a short time since the last alarm.
- Continuously driving on the lane marking.
- The system prompts the driver to take over if his/her hands are off the steering wheel.

When the indicator lamp & is blue, if none of the aforementioned actions are taken and the vehicle deviates from the lane (such as when the driver unexpectedly drifts from the lane due to fatigue, distraction, or phone use), the system will issue a warning to the driver, displaying a red lane marking prompt on the instrument cluster module/ICM, accompanied by an audible alarm.

## Steering assist

Lane departure correction assistance prompts are triggered only when the assist mode is set to 'Steering' or 'Steering and Warning.'

When the instrument indicates a vehicle speed greater than 60 km/h and the system detects at least one valid side of the lane markings, The indicator lamp & of the instrument cluster module comes on in blue. This indicates that the system may intervene in turning of steering wheel to assist in corrective steering adjustment. When only one side of the lane edge is detected, the system will only assist in correction for that side.

When the indicator lamp | is blue, if the vehicle deviates from the lane under any of the following conditions, the system will not intervene with steering wheel correction assistance.

- The accelerator pedal is quickly depressed for acceleration.
- The brake pedal is slammed for deceleration.
- Turning on the turn signal lamp on the corresponding side.
- Turning on the hazard warning lamp.
- Turning the steering wheel quickly.
- This is a short time since the last alarm.
- Continuously driving on the lane marking.
- The system prompts the driver to take over if his/her hands are off the steering wheel.

When the system intervenes with steering wheel correction assistance, the driver will feel the system applying torque to the steering wheel, and the instrument cluster module will display a blue lane line prompt.

# **Takeover prompt**



When the LDW detects that the steering wheel is out of the driver's hands for a long time, the system will issue a takeover prompt, and the instrument cluster will display an alarm message and sound with a buzzer.

The driver shall hold the steering wheel with hands immediately after receiving the takeover prompt. Please remain calm and avoid making sudden movements with the steering wheel unnecessarily. When the lane departure system detects the torque applied to the steering wheel, it recognizes that the driver is holding the steering wheel, and the takeover prompt is canceled. The lane departure system automatically reactivates.

## **i** NOTE

The condition that the driver's hands are lightly holding the steering wheel may be misinterpreted by the system as the steering wheel out-of-hand. In this case, when the system issues a steering wheel hands-on reminder, the driver only needs to hold the steering wheel tightly or shake the steering wheel slightly, so that the system can detect the torque applied to the steering wheel. Afterward the hands-on reminder will disappear.

## Other prompts

When the system detects camera blindness, a "Front camera view obstructed" message will pop up on instrument cluster module.

Typically, this is caused by dirt on the windshield glass or direct sunlight shining on the intelligent front camera (IFC) from a low angle. The lane departure system will not be damaged as a result and does not require inspect and repair.

The driver can try to wipe the front windshield glass with water spray.

When a fault is detected, the message reading "Please check the LDW" will pop up on the instrument cluster, and the yellow indicator lamp | \$\\ \frac{1}{3}\$ will come on. Please proceed to a GAC Motor authorized shop for inspect and repair as soon as possible.

#### **Functional limitations**

Even when the lane departure system is activated and operational, it may incorrectly detect or fail to detect lane markings due to unavoidable environmental factors and conditions. The system may be affected or fail to work under the following conditions:

- Poor line of sight caused by, e.g., snow, rain, fog or water spots.
- Dirt or fog on the windshield, or obstruction in front of the IFC on the windshield.
- Excessive heat around the intelligent front camera (IFC) due to direct sunlight.
- Light glare of due to direct sunlight, oncoming vehicles, reflected light from road water-logging, etc.
- Sudden changes in outdoor brightness, such as entering/exiting tunnels.
- Failure to turn on headlamps at night or in the dark tunnel.
- No lane marking, or difficulty in distinguishing the lane marking color from the road surface color.

- Unclear, too thin, worn, blurred or dirt/snow-covered lane markings.
- Increased or decreased number of lanes or complicated lane markings.
- More than two lane markings on the left and right sides of the vehicle.
- Marks or objects similar to lane markings on roads.
- Projections of isolation strips or other objects on lane markings.
- Short-term change of markings, such as at ramps or motorway exits.
- Driving on steep slopes or curved roads.
- Close distance from the vehicle ahead or lane markings blocked by the vehicle ahead.
- Severe shaking of the vehicle.

In the following situations, the performance of the system's steering wheel intervention for corrective assistance may be affected: – Vehicle overload.

- The tire pressure is abnormal.
- The road is uneven.
- There is strong crosswind.
- The driver modifies the parts related to vehicle control.
- The parts related to vehicle control are replaced with non-genuine parts.
- The parts related to vehicle control are improperly assembled.

#### **i** NOTE

When the lane departure system intervenes in turning of the steering wheel for corrective steering adjustment, the driver may still turn the steering wheel to control the vehicle. When the driver feels that the correction torque applied by the system is improper, he/she can control and drive the vehicle according to his/her intention at any time.

#### **CAUTION**

- When the lane departure system detects an unconscious departure from the lane, it will issue a warning or intervene in the steering wheel for corrective steering adjustment. Do not panic or turn the steering wheel fiercely if unnecessary.
- When the lane departure system detects that the driver's hands have been off the steering wheel for an extended period, it will issue a warning. Do not panic, and avoid making unnecessary sudden movements or shaking of the steering wheel. The driver can hold the steering wheel tightly with both hands for normal driving.
- When you select the LDW mode as "Warning", the system will not issue steering intervention, and when you select the mode as "Steering", the system will not issue a graphic and audible alarm.

#### **AWARNING**

- The lane departure system is only an assistive system and cannot actively control the vehicle to change lanes or maintain lane position. The driver is always responsible for monitoring road conditions and actively controlling the vehicle. Always keep your hands on the steering wheel and maintain control of the vehicle.
- Improper use or negligence of the lane departure system may lead to accidents. Do not rely on the lane departure system or attempt dangerous driving with its assistance.

#### **AWARNING**

- The lane departure system may not always recognize lane lines and lane edges. Poor weather, inadequate night lighting, water accumulation or snow on the road, damaged or blurred lane markings, and shadows projected onto the road may lead to missed or incorrect recognition of lane lines or lane edges.
- This may cause missed and false triggering of the function, so the driver must be concentrate on observing the road and traffic conditions and drive carefully

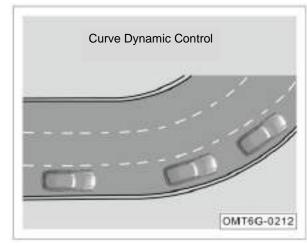
#### **AWARNING**

- Avoid strong impacts on the intelligent front camera, exposure to moisture or heat, and do not disassemble the components on your own. Do not place reflective objects on the instrument panel, as these items can not only dazzle the driver but may also reflect light into the field of view of the intelligent front camera (IFC), affecting its normal operation.
- Do not color the front windshield of the vehicle or add coatings that do not conform to the specifications. Any additional items that affect the detection range of the IFC may affect the normal operation of the system.
- LDW with curb recognition also uses the signal from the MMW radar sensor to pay attention to bumpers or vehicle bodies to avoid collisions or modifications that may affect the normal operation of the LDW.

#### **AWARNING**

- When the system cannot detect lane lines and determines that the driver is intentionally leaving the lane (such as detecting a rapid steering wheel movement) or the speed is ≥ 130 km/h or ≤ 60 km/h, the system will not issue warnings or steering interventions even if the vehicle departs or leaves the lane.
- The LDW can only adjust limited steering angle, so it can't promise that the vehicle will be driven back into the lane under any circumstances.
- The sounds inside the vehicle or external noise may prevent you from hearing the audible alarm, so it cannot be guaranteed that you will be alerted to warnings issued by the lane departure system under all circumstances.

#### 5.4.6 Shadow driver



Shadow Driver is a cornering assistance control technology, abbreviated as AVDC in English. It mainly applies slight longitudinal acceleration/deceleration intervention to the vehicle when turning, reduces the vehicle's lateral acceleration and roll, reduces the driver's operating load on the accelerator and steering wheel, and improves cornering stability and driving comfort.

#### **Mode settings**

Shadow Driver has five modes: off, steady, aggressive, ice and snow, and adaptive mode. Select the corresponding "Shadow Driver" mode through the "Driving Mode-Current Driving Mode" interface of the audio host.

- "Off" mode: Shadow Rider is switched off.
- "Solid" mode: Shadow Driver controls with medium strength, suitable for regular driving.
- "Aggressive" mode: Shadow Rider's controls become less aggressive to reduce driver intervention.
- "Ice and Snow" mode: Shadow Driver has the strongest control intensity. This mode should be used on icy and snowy roads. Driving on regular roads may interfere too much with the driver's operations.
- "Adaptive" mode: Automatically adjusts the intensity of Shadow Rider depending on the driver's input. In this mode, the vehicle automatically adjusts the throttle sensitivity according to the vehicle status and driver operation.

#### CAUTION

- In "Adaptive" mode, the driver cannot adjust throttle sensitivity.
- For 4WD vehicles, in "Snow Mode\*", "Mud Mode\*" or "Sand Mode\*", the Shadow Rider function is turned off and the Shadow Rider mode cannot be adjusted.

## Throttle sensitivity adjustment

Throttle sensitivity is a way to adjust the throttle effect. The higher the throttle sensitivity, the faster the engine. Generally speaking, lower throttle sensitivity is suitable for low-speed and congested road conditions, while higher throttle sensitivity is suitable for high-speed and mountain road that require greater power output.

- When Shadow Driver is not in "adaptive mode", the throttle sensitivity can be set in "Driving Mode - Current Driving Mode Interface".
- You can also adjust steering wheel by dialing up/down on the multi-function "OK" button on the left side of the steering wheel.

## 5.4.7 Intelligent headlight control\*

The intelligent headlight control (IHC) system uses an intelligent front camera (IFC) sensor located at the top edge of the front windshield glass to detect traffic and environmental factors in real-time, automatically switching between low beam and high beam. For example, when driving on poorly lit roads at night, if the driver activates the intelligent headlight control (IHC) function, the system will automatically come on the high beam when it determines the conditions for activation are met; when the system detects a vehicle approaching from the front, it will automatically switch the high beam to low beam.

## **Activating IHC**

 With the vehicle power in the 'ON' gear, activate the intelligent headlight control (IHC) function through the AV system settings.

#### **i** NOTE

The setting has the memory function, so that it will work in the state before last shutdown when the vehicle is restarted.

- 2. Turn the lamp switch to the position to activate the automatic headlamp.
- After the intelligent headlight control function is activated, it remains in standby mode. When the conditions to turn on the high beam are not met, or the driver has not manually activated the high beam, the indicator lamp on the instrument cluster shows white.
- When the intelligent headlight control is activated and the conditions to turn on the high beam are met, the system automatically switches to the high beam, and the indicator lamp on the instrument cluster comes on blue.

# Turn off the intelligent headlight control/IHC.

The intelligent headlight control/IHC will turn off if any of the following conditions are met:

- Turn the lamp switch to a position gear other than "AUTO".
- Enter the AV system settings to turn off the intelligent headlight control/IHC function.
- Switch off the vehicle.

#### **i** NOTE

- The high beam and high beam flash function can be manually turned on or off at any time.
- In situations with heavy fog, heavy rain, or other conditions that may cause glare, it will request to turn on the low beam.

## **IHC suppression conditions**

The high beam will be suppressed in the following cases:

- The driver manually turns on the high beam.
- The vehicle speed is below 15 km/h.
- The fog lamps are turned on.
- The wiper is set to the HI gear position for a sustained period.
- The ambient brightness exceeds the threshold.
- Detected streetlights, nearby vehicles ahead, or oncoming traffic.

The system will not automatically come on the high beam in the following situations:

 Aggressive driving, sharp turns, activation of ABS or ESP, etc.

- The vehicle speed is below 35 km/h.
- Turn signal lamp is turned on.

#### **Functional limitations**

When the IHC is activated, the automatic switching of high beam and low beam may be delayed or even unavailable when:

- The windshield glass surface in front of the IFC is covered with ice, snow, fog, dirt, sticker or other objects.
- There are highly reflective objects on dimly lit streets.
- Encountering pedestrians, bicycles, etc., on poorly lit roads or along the roadside.
- The light of the front oncoming vehicle is blocked by a crash barrier, a high central road fence, a green belt, etc.
- The brightness of the tail lamps of the lead vehicle is low or does not comply with national standards when the vehicle is following the lead vehicle.
- The vehicle encounters another halfcovered incoming vehicle in case of sharp turns/mountain roads/low-lying ground.
- The vehicle is driven on a slope or bumpy road.

- The vehicle is driving in a heavily rainy, snowy or foggy day.
- The IFC is damaged or its power supply is cut off.

## **♠WARNING**

The IHC is a driver assistance function, which can help you select the lighting way best suitable for the actual condition. The driver shall always be responsible for manual switching between the high and low beams under the traffic and environmental conditions.

- The IHC may not be able to correctly identify all driving environments and cannot work normally in some environments.
- If the IFC is blocked by dirt, stickers, ice and snow, etc., the IHC may not work.
- If the vehicle lighting system is changed (for example, the headlamp is modified), the IHC performance may be degraded, or the function may not be available.

# 5.4.8 Adaptive high beam\*

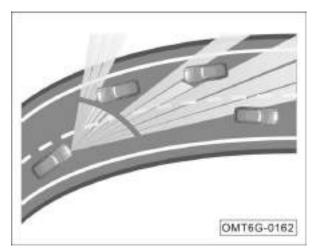
Adaptive high beam, referred to as ADB, is an intelligent high beam control system that can adaptively change the high beam type according to road conditions. According to the driving status of the vehicle, the environmental status and the status of other vehicles on the road, the ADB system automatically turns on or off high beam for the driver; according to the position of the vehicle in the field of vision in front of the vehicle, the high beam pattern is adaptively changed to avoid dazzling other road users.

# Turn on adaptive high beam

1. When the vehicle power is in the "ON" gear and high beam is turned on through AV system settings interface, the ADB function enters the standby state. When it is turned off, the vehicle cannot trigger the ADB function.



2. Turn lamp to the AUTO position ① and in gear, the low beam is automatically turned on when the ambient brightness is low. If the vehicle speed is greater than 25 km/h, high beam is allowed to be activated. At this time, high beam enters the intelligent control state. If the vehicle speed is lower than 15 km/h, the anti-glare high beam will automatically exit.



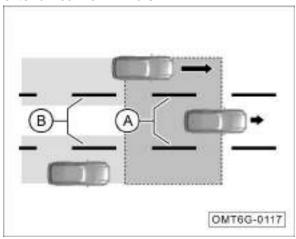
- If intelligent front camera detects a row of street lamps on the road, high beam will not turn on automatically.
- On roads without street lamps, the system will automatically switch to high beam type according to the position of the vehicle ahead to avoid dazzling the driver of the vehicle ahead, while maintaining high beam lighting in other areas.

## **CAUTION**

- In bad weather such as heavy fog (the user manually turns on fog lamp) or heavy rain (the wipers are wiping quickly), high beam will not turn on automatically to ensure driving safety.
- When a part involved in the function fails or there is a system failure, high beam will not turn on automatically.

## 5.4.9 Blind spot detection (BSD) system

The blind spot detection (BSD) system detects vehicles in adjacent lanes' blind spots and the area behind the blind spots using radar sensors at the rear of the vehicle. When a vehicle is detected approaching quickly, the system will alert the driver with a visual signal from the exterior rearview mirrors.



- A: Blind spot in the adjacent lane.
- B: Area behind the blind spot.

#### On and Off

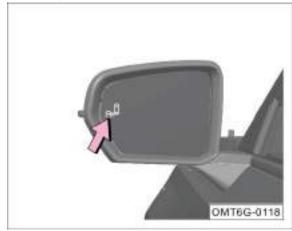
When the vehicle power is in the "ON" gear or the vehicle start, blind spot can be turned on or off through the AV system.

If the system is functioning normally, the indicator lamp on the exterior rearview mirror will briefly come on, and the function status indicator lamp  $\mathbb{Q}_{\mathbb{P}_1}$  on the instrument cluster module will turn green. If a fault is detected in the system, the indicator lamp  $\mathbb{Q}_{\mathbb{P}_1}$  on the instrument cluster will turn yellow, and the instrument cluster module display will show a fault message. When the system is off, the indicator lamp goes out.

## **i**NOTE

The switch status and mode selection of the system have a memory function. After the vehicle starts, the switch and mode selection status will be the same as when the vehicle was last powered off.

## Warning types



The BSD system alerts the driver via the yellow indicator lamp on the exterior rearview mirror, whose illuminance can be adjusted automatically according to the ambient light.

## **CAUTION**

When the vehicle starts or the system is activated, the yellow indicator lamp on the exterior rearview mirror will come on for 2 seconds, indicating that the function is properly activated.

## **Working conditions**

Under the following three conditions during driving (vehicle speed > 15 km/h):

- Another vehicle enters the blind spot from the rear or from one side.
- Another vehicle approaches this vehicle quickly from the rear of the adjacent lane.
- Another vehicle enters the blind spot from the front, and it stays in the blind spot longer than a certain period of time.

The BSD system issues an alarm and the indicator lamp on left/right exterior rearview mirror comes on, and if the turn signal lamp on the same side is activated in this case, the indicator lamp flashes to alert you that it is risky to change lane.

## CAUTION

When the vehicle overtakes another vehicle ahead at a very high speed, the alarm will not be activated for the vehicle in the blind spot as the time that the vehicle stays in the blind spot is too short.

#### False alert

When there are no vehicles in the blind spot, the system may still issue a warning. The following situations may cause the system to issue false alarms:

- The vehicle is near a road guardrail.
- The vehicle is near a highway concrete wall.
- The vehicle is in a building area.
- The vehicle is passing a sharp turn around a building.
- The vehicle is near shrubs and trees.

#### **CAUTION**

The false alarm, if triggered, just lasts for a short time and can be corrected automatically.

#### Radar sensor



The BSD radar sensors are installed as shown above.

## **CAUTION**

Please ensure that the area around the rear bumper sensors is not covered by ice, snow, or other objects. If any sensor is interfered, the system performance will be degraded and the instrument cluster module will display a prompt "Rear angle radar is blocked" and issue an alarm. The system will automatically return to normal if any of the following conditions is met:

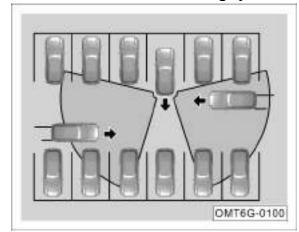
- Two vehicles are detected on both sides of the vehicle.
- The driver turns off the power and restarts the vehicle.

If the sensor is still obstructed after restarting the vehicle, the system will remind you again that the sensor is obstructed and will issue an alarm. If a prompt "Please check BSD system" is displayed on the instrument cluster module, it indicates that the system is faulty, so please go to the GAC Motor authorized shop for inspect and repair in time.

The BSD system may not work properly or even be inoperative under the following special conditions:

- When the detected target is too small, such as bicycles or electric scooters.
- When the target is stationary.
- During severe weather conditions, such as heavy rain or snow.
- When driving on curves, slopes, or similar roads.

# 5.4.10 Rear cross traffic warning system\*



The rear vehicle cross traffic alert function uses blind spot radar installed at the rear of the vehicle to detect the blind spots on both sides at the rear. When the vehicle is reversing, if a vehicle is detected approaching quickly, the system will alert the driver using visual signals from the exterior rearview mirror and the surround view monitor (SVM).

#### **AWARNING**

- RCTA is a driver assistance system that cannot replace the driver to monitor external traffic conditions or make judgments.
- In order to ensure safety, the driver must not rely entirely on the BSD radar, and must correctly use the interior rearview mirror and the exterior rearview mirrors on both sides.

#### On and Off

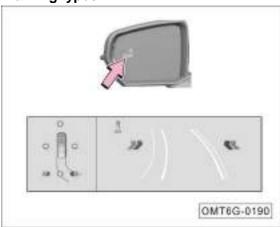
When the vehicle power is in the "ON" gear or the vehicle is start, the rear vehicle passing assist function can be turned on or off through the AV system.

When the vehicle is started or the user activates the feature, the rearview mirror indicator lamp will come on for 2 seconds, indicating that the system is functioning normally.

## **i**NOTE

The system has a switch state memory function. After the vehicle is started, the switch state will be the same as that before vehicle power-off last time.

## Warning types



- Visual reminder: A yellow indicator lamp not the exterior rearview mirror and a flashing red arrow will appear on the side of approaching traffic in the surround view monitor, alerting the driver. The indicator lamp can automatically adjust its brightness according to external lighting conditions.
- Audible reminder: An alarm sound will also serve as a supplementary alert.

## **Working conditions**

The following conditions need to be met for function activation:

- The system operates when the vehicle is in reverse with the gear in "R."
- The vehicle speed is less than 10 km/h.
- The function switch is in the ON position, and the function is free of faults.

When the radar detects that the vehicle is reversing and a vehicle is rapidly approaching from the rear sides, posing a potential collision risk, alerts will be issued in the following ways:

- The yellow indicator lamp on the exterior rearview mirror on the dangerous side flashes.
- In the surround view monitor, a red light bar flashes on the dangerous side at the rear of the vehicle.

## **CAUTION**

This function cannot detect objects behind other vehicles or obstacles.

#### False alert

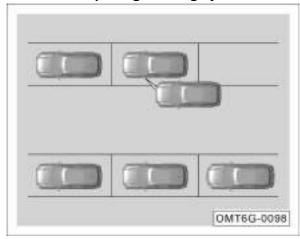
When there are no vehicles in the detection area, the system may still issue an alarm. The following situations may cause false alarms:

- The vehicle is near a road guardrail.
- The vehicle is near a highway concrete wall.
- The vehicle is in a building area.
- The vehicle is passing a sharp turn around a building.
- The vehicle is near shrubs and trees.
- The vehicle is parking too close to vehicles behind.
- The vehicle is parking in an indoor parking lot.

## **CAUTION**

The false alarm, if triggered, just lasts for a short time and can be corrected automatically.

## 5.4.11 Door opening warning system\*



The door opening warning function uses blind spot radar installed at the rear of the vehicle to detect adjacent lanes when the vehicle is parked. When a vehicle is detected approaching quickly, and there is a risk of opening the door, the system will alert the driver through visible signals on the exterior rearview mirror and an audible alarm.

## **△WARNING**

- DOW is a driver assistance system, which cannot replace the driver to monitor external traffic conditions or make judgments.
- In order to ensure safety, the driver must not rely entirely on the BSD radar, and must correctly use the interior rearview mirror and the exterior rearview mirrors on both sides.

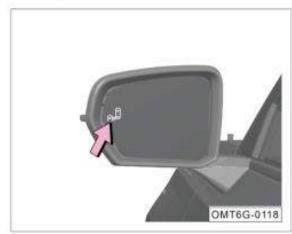
## On and Off

When the vehicle power is in the "ON" gear or the vehicle is start, the door opening warning function can be turned on or off through the AV system.

# **i** NOTE

The system has a switch state memory function. After the vehicle is started, the system state will be the same as that before vehicle power-off last time.

# Warning types



The door opening warning system alerts the driver through the yellow indicator lamp on the exterior rearview mirror, which can automatically adjust its brightness according to external lighting conditions.

## **Working conditions**

The following conditions need to be met for function activation:

- The vehicle is stationary.
- The vehicle power is in the 'ON' gear position, or switched from 'ON' to 'ACC' or 'OFF' mode within 3 minutes.
- The function switch is in the ON position, and the function is free of faults.

When the radar detects a vehicle approaching from behind in the adjacent lane and there is a potential collision risk when the driver opens the door, the LED warning lamp on the exterior rearview mirror will come on. If the driver continues to open the door at this time, the LED warning lamp will flash, and a voice prompt will also be issued.

## CAUTION

This function cannot detect objects behind other vehicles or obstacles.

#### False alert

When there are no vehicles in the detection area, the system may also issue a warning. The following situations may lead to false alarms:

- The vehicle is near a road guardrail.
- The vehicle is near a highway concrete wall.
- The vehicle is in a building area.
- The vehicle is passing a sharp turn around a building.
- The vehicle is near shrubs and trees.
- The vehicle is parking too close to vehicles behind.

## CAUTION

The false alarm, if triggered, just lasts for a short time and can be corrected automatically.

## 5.4.12 Rear approach alert system\*

The rear vehicle approaching assist function uses blind spot radar installed at the rear of the vehicle to monitor targets directly behind the vehicle in real time. When the driver is driving normally on the road and a target is rapidly approaching from behind in the same lane, the system issues a warning and sends a rear-end collision alert signal to the approaching vehicle.

## CAUTION

The rear vehicle approaching assist is only an auxiliary function and cannot replace the driver's monitoring of external traffic conditions. The driver should always remain vigilant of the surrounding environment.

#### On and Off

The rear traffic assist function can be switched on or off via system settings.

## **CAUTION**

The system has a switch status memory function; after the vehicle starts, the system status will be the same as when the vehicle was last powered off.

## Warning types

The rear vehicle approaching assist feature prompts rapidly approaching vehicles from behind by actively activating the hazard lamps to flash quickly.

# **Working conditions**

The following conditions need to be met for function activation:

- The vehicle is started and is in a nonreverse gear.
- The function switch is in the ON position, and the function is free of faults.

When the radar detects a vehicle approaching rapidly from behind in the same lane, the function will activate to prompt the trailing driver to reduce the risk of a rear-end collision.

## **CAUTION**

- This function cannot detect objects behind other vehicles or obstacles.
- When the rear vehicle moves too fast, this function may not give an alarm in time.
- This function does not trigger an alarm when the driver has turned on the hazard warning lamp switch.

#### False alert

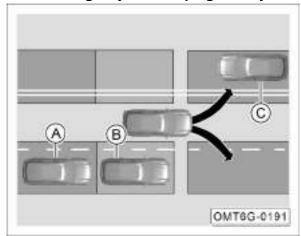
When there are no vehicles in the detection area, the system may also issue a warning. The following situations may lead to false alarms:

- The vehicle is parking in a parking lot.
- The vehicle is on uneven terrain.
- The vehicle is in a building area.
- The vehicle is near shrubs and trees.

## CAUTION

The false alarm, if triggered, just lasts for a short time and can be corrected automatically.

#### 5.4.13 Emergency lane keeping alert system



- A: Area behind the blind spot.
- B: Blind spot in the adjacent lane.
- C: The opposing area of the adjacent lane.

The emergency lane keeping assist feature utilizes blind spot radar installed at the rear of the vehicle, the intelligent front camera (IFC), and MMW radar. The system continuously monitors the adjacent lane areas in front and behind the vehicle. When the vehicle drifts out of its lane and there is a collision risk with vehicles in the adjacent lane, it will alert the driver and actively assist in keeping the vehicle within its lane to reduce the risk of collision.

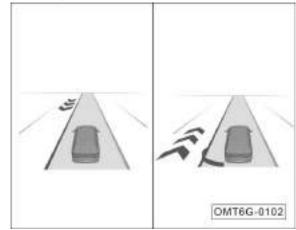
#### On and Off

When the vehicle power is in the "ON" gear, the emergency lane keeping function can be turned on or off through the audio system.

#### **i**NOTE

- The emergency lane keeping assist function is turned on by default when the vehicle is powered on. Please choose to turn this assist function on or off according to your needs.
- When the driver activates the emergency lane keeping assist feature, the blind spot detection function will be automatically enabled.

# Warning types



- Visual reminder: An alarm display will appear in the instrument cluster, the lane line on the dangerous side will turn red, and the hazardous target vehicle will be highlighted in red. If the conditions for blind spot monitoring alarms are met at this time, the indicator lamp on the exterior rearview mirror will come on.
- Steering assistance: The system will actively control the steering wheel to keep the vehicle within its lane, and the driver will feel the torque applied by the system on the steering wheel.

# **Working conditions**

The following conditions need to be met for function activation:

- The vehicle is in drive gear and the speed is greater than 60 km/h.
- The blind spot detection (BSD) system is in the activated state.
- The blind spot detection (BSD) system and the lane departure system are both fault-free.

When a risk of lane change is detected, the system actively controls the steering and issues a reminder on the instrument cluster.

## **CAUTION**

- Emergency lane keeping assist is only an auxiliary function and cannot replace the driver in monitoring traffic conditions. The driver should always be alert to the surrounding environment. This function cannot detect objects behind other vehicles or obstacles.
- The driver should always keep their hands on the steering wheel and actively control the vehicle.

## CAUTION

- The system may not function properly if road conditions do not meet the requirements for the LDW system. => See page 157
- When the medium range radar (MRR) cannot operate normally, this function will also be inoperative.
- When the blind spot detection (BSD) function cannot operate normally, this feature may also be inoperative.
- When the function detects that the driver's hands are off the steering wheel for a long time, it will issue a warning. Do not panic or turn the steering wheel fiercely if unnecessary. The driver can hold the steering wheel tightly with both hands for normal driving.
- When the function intervenes with steering assistance, the driver can still turn the steering wheel to control the vehicle. When the driver feels that the correction torque applied by the system is improper, he/she can control and drive the vehicle according to his/her intention at any time.

#### False alert

When there are no vehicles in the detection area, the system may still issue an alarm. The following situations may cause false alarms:

- Poor line of sight caused by, e.g., snow, rain, fog or water spots.
- Dirt or fog on the windshield, or obstruction in front of the IFC on the windshield.
- Too high temperature around the IFC due to direct sunlight.
- Light glare of due to direct sunlight, oncoming vehicles, reflected light from road water-logging, etc.
- Sudden changes in outdoor brightness, such as entering/exiting tunnels.
- Failure to turn on headlamps at night or in the dark tunnel.
- No lane marking, or difficulty in distinguishing the lane marking color from the road surface color.
- Unclear, too thin, worn, blurred or dirt/snow-covered lane markings.
- Too wide or narrow lanes.
- Increased or decreased number of lanes or complicated lane markings.

- More than two lane markings on the left and right sides of the vehicle.
- Marks or objects similar to lane markings on roads.
- Short-term change of markings, such as at ramps or motorway exits.
- Driving on steep slopes or curved roads.
- Close distance from the vehicle ahead or lane markings blocked by the vehicle ahead.
- Severe shaking of the vehicle.
- The vehicle passes by road barriers, concrete walls on highways, trees, and shrubs.
- The vehicle passes over speed bumps or pothole-ridden surfaces.
- The vehicle passes through densely built-up areas.
- The vehicle is driving on steep slopes or curved roads.
- The medium range radar and the rear left and right blind spot radars are covered with dirt or rain and snow.

### **CAUTION**

The false alarm, if triggered, just lasts for a short time and can be corrected automatically.

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

- The vehicle is overloaded.
- The tire pressure is abnormal.
- The road is uneven.
- There is strong crosswind.
- Parts related to vehicle control are modified or replaced with non-genuine parts.
- The parts related to vehicle control are improperly assembled.

# 5.4.14 MMW radar and intelligent front camera\*

#### MMW radar sensor

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

The MMW radar sensor must be adjusted and calibrated in the following situations:

- The mounting bracket of the MMW radar sensor has been removed and installed.
- The MMW radar sensor is removed and then refitted.
- The toe-in or rear wheel camber is adjusted during the four-wheel alignment.
- The vehicle has a collision.

### **i** NOTE

- Special tools and equipment are required in adjustment and calibration of the MMW radar sensor. If adjustment and calibration of the MMW radar sensor is required, please go to the GAC Motor authorized shop for relevant operation.
- When MMW radar fails or becomes out of adjustment, it will affect the normal use of driving-related auxiliary functions.

# Special instructions on MMW radar sensor

The MMW radar is installed at the front of the vehicle, and no other obstacles are allowed within the detection range of the MMW radar. Do not install obstacles such as license plate frame when installing the front license plate. Otherwise, the detection performance of MMW radar will be affected, and the related driving assistance functions may not function.

### CAUTION

- If the MMW radar sensor is dirty, blocked by the license plate frame, or covered by heavy rain, ice, snow, and mud, the related driving assistance 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.
- When there is a strong reflection on the MMW radar ultrasonic wave (e.g., in parking lot), the related functions of the MMW radar sensor may be affected.
- Do not paste or add stickers, driving assistant lights, license plate frames or other similar objects in front of and around the MMW radar; otherwise, it may affect the relevant driving assistance functions of the MMW radar sensor.
- It is recommended that the snow on the sensor is removed with a brush and the ice on the surface is removed with an insoluble de-icer spray.

### CAUTION

- Repairing the front body of the vehicle may cause a change in the orientation of the MMW radar, affecting the functions related to the MMW radar. Therefore, please go to the GAC Motor authorized shop for maintenance in time.
- If the MMW radar is damaged or its orientation changes, please turn off the functions related to the MMW radar and promptly visit a GAC Motor authorized shop to recalibrate the MMW radar.
- The direction of the MMW radar sensor may change due to vibration, for example, the part near the front bumper radar collides with the roadside/flower bed. Change of the direction of the sensor may affect the performance of MMW radar related driving assistance functions or even cause abnormal deactivation of the system.

#### Front camera

A front camera is installed on the upper part of the front windshield to detect the surrounding environment. It can identify pedestrians not blocked up to 80 m away from the vehicle (in case that the environmental factors such as lighting are ideal) with a pedestrian detection height of not less than 0.8 m. The front camera sensor must be calibrated under the following conditions:

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

### **i** NOTE

- If only intelligent front camera fails, all related driving assistance functions will fail.
- The calibration of the IFC sensor requires the use of special tools and equipment. If it is necessary to calibrate the IFC sensor, it is recommended to go to the GAC Motor authorized shop for related work.
- When the forward IFC sensor fails, is misaligned or blocked, it may affect the normal use of related driving assistance functions.

### **CAUTION**

- Poor lighting conditions, such as nighttime, backlighting, heavy rain, fog, snow, or mud, may affect the intelligent front camera (IFC), leading to interruptions or reduced performance of driving assistance functions. In severe cases, this may cause complete deactivation of the functions, and the instrument cluster will display related warning messages for driving assistance features.
- The field of view of the intelligent front camera (IFC) may be affected by obstructions such as dust, deposits, water mist, ice, snow, or mud on the front windshield glass. In these cases, this may cause the driving assistance functions to become inoperative. If this occurs, please clean the area around the camera on the front windshield glass, or activate the air conditioning (A/C) defrosting or defogging functions. After clearing the obstructions, the functions will resume normal operation.

### **CAUTION**

- If the interfering factors affecting the intelligent front camera (IFC) are removed, the pedestrian detection system (PDS) will resume normal operation.
- Low light conditions at sunset or night may affect the functioning of PDS. Do not block the sight around the IFC with stickers or opaque objects; otherwise, the PDS function may not work properly.
- Please confirm whether there is any obstruction in the IFC area before driving the vehicle.
- Keep the IFC sensor clear.

# 5.4.15 Tire pressure monitoring system (TPMS)

The TPMS monitors the tire pressure and temperature and displays current tire pressure and temperature information on the instrument cluster module. In case of tire anomalies such as low pressure, high pressure, rapid air leakage and high temperature, the instrument cluster module will show warning messages.

If the vehicle is stationary for more than 7 days or the battery is disconnected, the pressure and temperature values displayed on the instrument cluster module (ICM) will show '---' with the vehicle power in the 'ON' gear. After driving at a speed exceeding 25 km/h for a few minutes, the current tire pressure and temperature values will be displayed on the instrument cluster module.

### **Alarm description**

- If the tire pressure is higher than 330 kPa, the TPMS indicator lamp comes on, and the alarm message on the instrument cluster display indicates that the tire pressure is high; when the tire pressure drops below than 300 kPa, the fault is eliminated and the TPMS indicator lamp goes out.
- If the tire pressure value is below 75% of the normal set value, the tire pressure monitoring system (TPMS) indicator lamp will come on, and the text alert on the instrument cluster display will indicate that the tire pressure is low. When the tire pressure (cold tire pressure) is inflated to the normal set value, the fault is cleared, and the TPMS indicator lamp will turn off.
- If the tire pressure continuously decreases by more than 30 kPa/min, the TPMS indicator lamp lights up, and the alarm message on the instrument cluster display indicates that the tire has air leakage; The vehicle power supply is switched on again, the fault is eliminated, the tire pressure warning lamp goes out.
- If the tire temperature exceeds 85°C, the tire pressure monitoring system (TPMS) indicator lamp will come on, and the text alert on the instrument cluster display will indicate that the tire temperature is high. When the tire temperature drops to 80°C, the fault is cleared, and the TPMS indicator lamp will turn off.

### **CAUTION**

After replacing the tire pressure sensor or rotating the tires, you do not need to go to the GAC Motor authorized shop to for re-learning and calibration, and the TPMS can automatically complete the learning and calibration in the next few driving cycles, provided that the tire pressure sensor is correctly installed for the model.

#### **i** NOTE

If a spare tire or a new tire is used, because the tire pressure sensor is missing, the low tire pressure alarm does not disappear while you continue to drive. Please do not interpret that as abnormal tire pressure.

#### 5.4.16 Seat vibration note\*

The seat vibration note system provides haptic feedback to the driver through a vibration motor located inside the driver's seat cushion. When the seat vibration note function of the vehicle is activated, and the vehicle is in motion with a certain collision risk, the system will trigger the seat vibration note.

#### On or Off seat vibration note

The seat vibration note function of the vehicle is disabled by default. With the vehicle power in the 'ON' gear, the alert type can be set to 'audible alert' or 'audible alert and seat vibration' through the AV system.

When the setting is 'audible alert', it indicates that the seat vibration note function is off, and only an audible alert will be issued when necessary; when the setting is 'audible alert and seat vibration', the system will enable the seat vibration note function. If there is a risk during driving, the vehicle will issue an audible alert accompanied by seat vibration.

### **i** NOTE

This setting has a memory function. After the vehicle is started, the selected alert type will remain the same as it was when the vehicle was last powered off.

### Trigger seat vibration note.

The following situations may trigger the seat vibration note. The driver should promptly observe the road conditions and take control of the vehicle when the seat vibration is activated:

- There is a risk of collision with the vehicle/pedestrian ahead during driving.
- During driving, the vehicle unexpectedly deviates from the lane and is about to cross the lane line.
- A vehicle is present in the blind spot, but the driver still activates the turn signal lamp in an attempt to change lanes.
- Cruise triggers note due to the driver's hands-off driving for a long time.
- During reverse, vehicles or pedestrians are approaching on both sides, posing a collision risk.

### **∆**WARNING

- The seat vibration note function is merely an auxiliary reminder. The driver should not rely on the seat vibration notes and should respond promptly to potential vehicle risks.
- The driver is always responsible for the safety of the vehicle.

# 5.4.17 Life-remaining auxiliary reminder system\*

Within 10 minutes after the vehicle is turned off and locked, the life remaining auxiliary reminder function detects whether there are any signs of life in the back seat of the vehicle through sensors installed on the top of the vehicle. If vital signs are detected, an alarm reminder will be pushed through horn, note mobile phone text messages and APP to note the driver to return and intervene to ensure the safety of the passengers.

# On and Off

When the vehicle power is in the "ON" or "ACC" gear, this function can be turned on or off through AV system settings. The system defaults to on. Doors can be deactivated by unlocking the doors.

### CAUTION

- Please read this function description carefully before use.
- This function is only used to assist in reminding the remaining life forms in the second and rear seat\*. It cannot replace the driver's judgment and the company is not responsible for any injuries or deaths caused passenger left behind in the car. Please confirm the situation in the car before leaving.

### **CAUTION**

- Obstructions may affect the performance of sensor detection. Before leaving the vehicle, do not use decorative parts to cover the ceiling above the second-row headrest, push the driver and front passenger seat, or the second-row seat to the front, tilt them, or fold them down. Performing the above operations may not correctly detect the real-time status of passenger.
- Please pay caution the network environment around the vehicle. For example, in a basement or area with no network signal, the alarm information may not be sent or may be delayed.
- This function may be triggered by mistake in scenarios where the entire vehicle is shaking, such as tow truck, lifting and lowering of multi-story parking spaces, hail, typhoons, and heavy rains. It is recommended that the driver turn off this function in advance through AV system.

# CAUTION

- After the driver response function opens the detection, it takes a certain amount of time to complete the initialization work, during which the monitoring function will not work.
- If you find that the function is not working (such as note) "Life legacy auxiliary reminder cannot be used"), please turn off the power of the vehicle and start the vehicle. If it still notes the function cannot work properly, it is recommended to go to GAC Motor authorized shop for inspect and repair in time.

# 5.4.18 HUD display\* HUD description

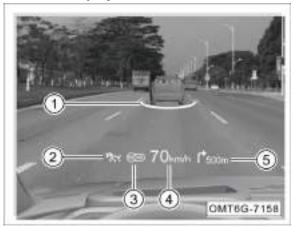
The head-up display or head-up display is referred to as HUD. The HUD image is projected onto windshield glass through the HUD device in instrument panel.

The HUD image will automatically dim or brighten to compensate for changes in external light. If necessary, the HUD image brightness can be adjusted manually. Depending on the angle and position between the sunlight and the HUD, the HUD image may temporarily brighten, which is normal.

# **i** NOTE

- Make sure the HUD image brightness is appropriate and positioned in your comfortable field of view.
- Polarized sunglasses may make the HUD image more difficult to see.

# Interface display



- 1) Adaptive/integrated cruise function working
- (2) ADAS status
- (3) Speed limit sign function
- 4 Vehicle speed
- ⑤ Navigation information\*



⑥ Blue line: Lane keeping assist function is triggered



⑦ Red line: Lane departure warning function is triggered



® The first level front collision warning function is triggered

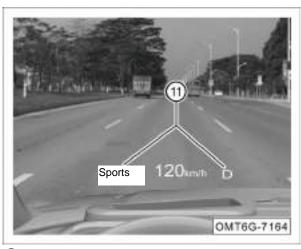
# 5. Driving Guide



The second-level front collision warning function is triggered



(10) Red warning strip: blind spot monitoring function is triggered



(11) Gear and griving mode

# **i**NOTE

- HUD navigation information follows the vehicle configuration; for vehicles without navigation function, HUD does not display navigation information and only displays gear information.
- The HUD display interface is for reference only, please refer to the actual vehicle.

# **HUD** settings

With the vehicle power in the "ON" gear, select "Head-up Display" in the head-up display function settings to turn it on/off, and make corresponding settings.

### iNOTE

- For your safety, it is recommended to set up HUD when parking.
- When adjusting function settings, the HUD screen will display the corresponding interface synchronously and disappear after 3 seconds without any operation.

### **HUD** maintenance

- Clean the inside front windshield to remove any dirt or film that may reduce the brightness or clarity of the HUD image.
- Clean the top curved surface of the HUD using a soft cloth cleaning agent with glass cleaner, wipe gently, and allow to dry.

### **i**NOTE

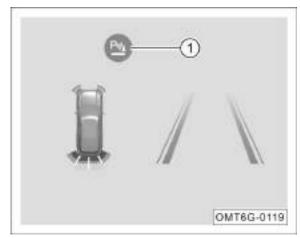
Windshield glass of vehicles equipped with HUD display function is specially made. If you need to replace windshield glass, you need to replace the corresponding specially made windshield glass, otherwise problems such as HUD image ghosting will occur.

# 5.5 Parking assist system (PAS)5.5.1 Reversing parking aid (RPA)

The RPA system uses ultrasonic sensors to send and receive ultrasonic waves, calculating the distance between the vehicle and obstacles based on the ultrasonic waves sent and reflected back by the obstacles.

### On and Off

- When the vehicle power is in the 'ON' position, release the electric park brake and shift the gearshift lever into 'R.' When the speed is less than 10 km/h, the reversing parking aid (RPA) system will activate.
- When the vehicle's forward speed is less than 10 km/h, the front ultrasonic sensors activate; when the forward speed exceeds 12 km/h, the front ultrasonic sensors deactivate; and when the forward speed drops from above 12 km/h to below 10 km/h, the front ultrasonic sensors reactivate (applicable only to models equipped with front ultrasonic sensors).
- When the speed exceeds 12 km/h, the front and rear ultrasonic sensors deactivate; shifting the gearshift lever out of 'R,' applying the electric park brake, and turning the vehicle power off will deactivate the reversing parking aid (RPA) system.



During reversing, if reversing radar is turned on, click P™∆ soft key ① to manually turn off the alarm sound, and click again to turn it back on. After restarting the vehicle, the alarm sound for the reversing parking aid (RPA) system is enabled by default.

# **i** NOTE

It is recommended to activate the alarm sound for the reversing parking aid (RPA) system when performing reverse maneuvers.

# Dynamic view



The dynamic indicator icon displayed on the left side of the screen shows the distance to obstacles both in front of and behind the vehicle. In the illustration, the vehicle radar bar colors transition from outer to inner as red, orange, yellow, and green. As obstacles get closer to the vehicle, the color lines will gradually decrease from the outer layer.

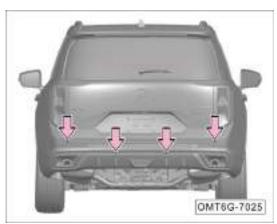
The change of the dynamic view is synchronized with that of the distance audible alarm.

# Distribution of radar sensors

Applicable to non-fusion parking models:



The front ultrasonic sensors are mounted on the front bumper.



The rear ultrasonic sensors are mounted on the rear bumper.

# Applicable to fusion parking models:



The front ultrasonic radar sensors are mounted on the front bumper cover.



The rear ultrasonic sensors are mounted on the rear bumper.

### **CAUTION**

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

### **∆WARNING**

- The RPA cannot take the place of the driver's observation of the surrounding environment. The driver shall focus on safe reversing and position adjustment according to the practical conditions.
- The RPA sensors have blind spots while they are detecting obstacles. During reversing, the driver shall observe the surrounding environment carefully to avoid scratches or collisions.
- When the vehicle is reversing at a narrow place or on an uphill slope, the RPA sensors may not detect railings, trees or slope surfaces, which is normal.
- When the reversing speed is fast, the detection accuracy of the radar sensors will decrease. lt recommended that the speed not exceed 10 km/h. When the RPA sends the continuous audible alarms, it indicates that the vehicle is extremely close to the detected obstacle, and shall reversing be stopped immediately to prevent an accident.

### **△WARNING**

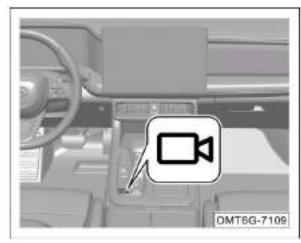
- When cleaning the radar sensors with the high-pressure cleaner, it shall be short-time and gentle, and the distance between the nozzle and the sensors shall be at least 30cm.
- If water drops are on the surface of the RPA sensor on the rear bumper, the sensitivity of the sensor will reduce. Wiping off them can restore the sensitivity of the radar.
- The surface of some subjects may not reflect the signal from the radar sensors, so the ultrasonic sensors cannot detect such subjects or people wearing such clothing.
- Noise sources outside the vehicle may interfere with the radar sensors, preventing it from detecting any target.
- The radar sensors are precision components. Do not disassemble or repair them without permission. Otherwise, GAC Motor will not assume any responsibility for the damage arising therefrom.

# 5.5.2 Around view parking system (AVPS)

The AVPS collects images of front, rear, left and right, of the vehicle, integrates the images into a 360° bird's eye view of environment around the vehicle, and shows the view on the AV system display, thereby providing the driver with information in real time on the surrounding environment of the vehicle and reducing 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.

### On and Off

- 1. The around view parking system (AVPS) can be activated and deactivated using the gearshift lever when the vehicle power is in the 'ON' position:
- When the gear is shifted to 'R,' the around view parking system (AVPS) automatically activates.
- When the gear is shifted out of 'R' and there are no related actions from the driver, the AVPS system will automatically exit after approximately 30 seconds.



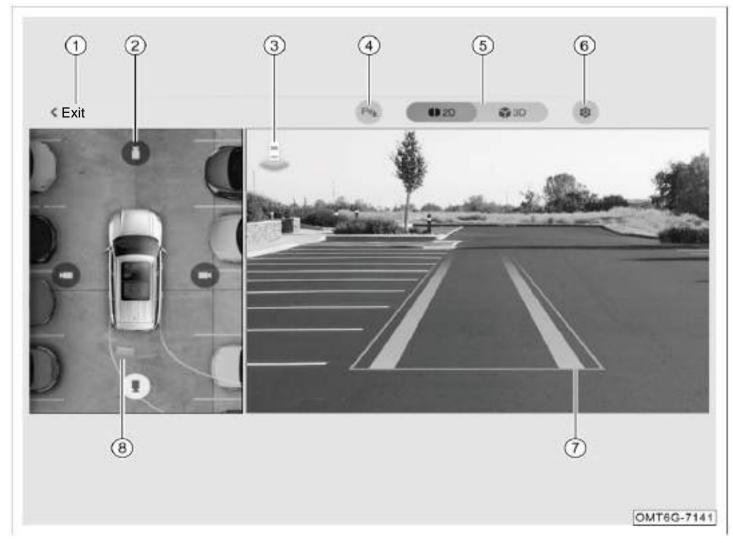
- 2. The around view parking system (AVPS) can be activated and deactivated using the button when the vehicle power is in the 'ON' gear:
- Press the button, the button light come on and around view parking system is turned on.
- Short press the button again, the button light goes out and around view parking system is turned off.
- 3. When the vehicle power is in the "ON" position, click the icon in the AV system menu bar to enter the AV system interface, and click the "Panoramic Image" icon to turn on the panoramic image function.

### **i**NOTE

- When the AVPS system is turned on, the AV system will display images taken around the vehicle and corresponding guidelines.
- If the vehicle's forward speed exceeds 20 km/h, the system will automatically deactivate.
- The AVPS system will automatically switch off when the vehicle (running at a speed of zero) is in non-"R" gear and the system is activated for more than 30s.
- If the AV system is not completely activated, the system cannot function properly.

# 5. Driving Guide

# Interface description



- ① Exit
- ② View switching soft key
- (3) Current view direction
- 4 Radar alarm sound switch
- ⑤ 2D/3D view switching
- 6 Settings
- ⑦ Track line
- ® Radar sensing area

# iNOTE

The panoramic display interface and functions of vehicles with different configurations may vary. Please refer to the actual vehicle.

# **Settings of AVPS:**

Press ⑦ Setting button to enter the setting interface of AVPS and set the options as follows.

- Track Lines: Turn on or off the lane track lines in the 360 surround view monitor area and the real-view area.
- Exit from P gear: After switching from R gear to P gear, you can choose to exit "immediately" or "delay 30s" to exit the interface.
- Chassis: Turn body function or off.
- Radar activated panoramic view: turn the radar activation function on or off. When turned on, when the vehicle speed is ≤12 km/h, the radar will detect an obstacle and issue an alarm, automatically entering the panoramic interface.
- Turn signal activation panorama: Turn on or off the left/right turn signal lamp switch left/right perspective function. After it is turned on, when the vehicle speed is ≤ 20 km/h, turn on the left/right signal lamp to enter the panoramic interface and display the corresponding viewing angle. The panoramic view will be automatically exited after the turn signal lamp is reset.
- Moving obstacles are visible (only for fusion parking models).

# iNOTE

Around view parking may vary for vehicles with different configurations. Please refer to the actual vehicle.

### Layout of cameras

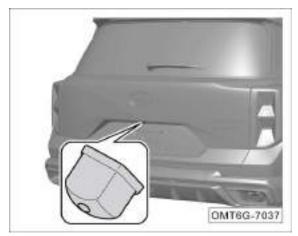


The front camera is installed under the front logo.



The left/right camera is installed on the left/right exterior rearview mirror respectively.

# 5. Driving Guide



CCD camera is installed next to the license plate lamp.

# **i** NOTE

To ensure the normal operation of the camera:

- Please keep the camera surface clean and free of ice, snow, accumulated water, dust and other foreign objects.
- If you find foreign matter attached to 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 when cleaning.
- Do not use a high-pressure cleaner to clean the camera squarely, and do not use abrasive or sharp objects to clean the camera.

# CAUTION

### **Functional limitations**

- When the camera is not working properly, the functions that rely on the camera to provide identification information will be limited. At the same time, the camera's recognition range is limited and cannot identify targets outside the recognition limit.
- When the external environment is bad and the camera's field of view is unclear, it will affect the camera's recognition ability.

# CAUTION

The following situations may cause the camera to fail to recognize the target, or cause recognition delay or error:

- Poor lighting conditions (dim, low light) or poor visibility (caused by heavy rain, snow, dense fog, etc.).
- The camera is facing a direct light source or the light intensity is insufficient.
- Rapid changes in light (such as entering or exiting a tunnel).
- Weather conditions (heavy rain, snow, fog, extremely hot or cold temperatures) interfere with camera operation.
- The camera surface is covered with foreign objects such as ice, snow, frost, rain, fog, stagnant water, and dust.
- The uneven road surface may cause the vehicle to bump or shake.
- The camera's view is obstructed.

The above examples, warnings, and limitations are not exhaustive of all situations that may affect the normal operation IFC sensor.

# **MARNING**

- The camera is for auxiliary use only. The camera may not work fully normally in all driving situations or traffic, weather and road conditions. When the vehicle is in a complex environment or in poor conditions, you should drive carefully and always be responsible for driving safety.
- License plate frames or other objects may not be addition license plate to avoid interference with sensors such as cameras and radars.

# **AWARNING**

It is prohibited to replace, modify or install cameras without permission. Only cameras originally manufactured or approved by GAC Motor Automobile Co., Ltd. can be used. Otherwise, related functions may not be used normally. GAC Motor Automobile Co., Ltd. does not assume any responsibility for the direct or indirect losses caused thereby.

# Panoramic video driving recorder\*

The AVPS system is equipped with the function of driving record. The real-time image, photo album and settings will be operable when a TF card is plugged in the driving record. The videos of front, rear, left and right of the vehicle are collected, processed and integrated. The processed and integrated videos are displayed and replayed on the display of AV system, and information related to the recorded videos is stored in the TF card of around view parking ECU.

### Turn on driving record

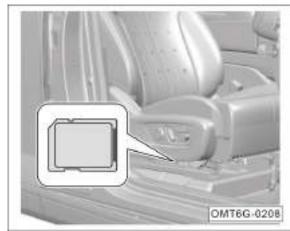
When the vehicle power is in the "ON" gear, the system background starts video recording by default (TF card is installed and loop recording is turned on in system settings). Users can enter the driving record interface in the following two ways:

- 1. Click AV system to enter the system application menu interface, and click the "Driving Record" icon to enable the function.
- 2. Open AV system by clicking in the status bar on the upper right side of the screen.

# **i** NOTE

- Since an original vehicle is not equipped with any TF card, a user cannot use the driving record function normally unless he/she installs one in his/her vehicle. It is prescribed that the TF card shall be more than 16 G in memory and comply with Class 10 standard.
- 2. The TF card shall not be pulled out when taking video. Cut off its power before the operation.

# Installation position of the TF card for driving recorder



 The installation location of the front passenger TF card is inside the panoramic parking ECU below the around view parking cutout in the carpet at the bottom of the seat.

### Interface description

Real-time image function area

- SVM is displayed in real time.
- Click the "Photo" soft key to take a photo of the current real-time image and save it in "Album → Photos".
- Click the "Emergency Recording" soft key to automatically record a 15 s video and save it in "Album → Locked Video".

#### Album function area

- "Loop Video" is a video that is automatically recorded and saved. You can select the video to play it back and other operations.
- "Locked vide is a video that is recorded and saved in an emergency and can be played back.
- "Photos" are pictures saved after clicking to take a photo. You can delete the photos in the list.

### Set up the ribbon

- Recording switch: Click soft key and the system will automatically record and save in a loop.
- Loop recording time: It can be set manually.
- Memory card formatting: Click the "Format" soft key to set the formatting.

# 5.5.3 Around view parking system (AVPS)\*

The fusion parking system automatically searches for parking on the left/right side of the vehicle through ultrasonic sensors and panoramic cameras around the vehicle. When parking is found, the driver notes parking according to the prompts on the car screen, clicks to select the parking space and clicks the parking button, and the system will enter automatic parking assist/APA mode.

In this mode, the system can automatically plan and calculate the parking trajectory, while controlling the vehicle's steering, speed, gear, etc. to enable it to enter parking. In automatic parking assist mode, the driver can release steering wheel, brake and accelerator to complete automatic parking in and out without any other operation.

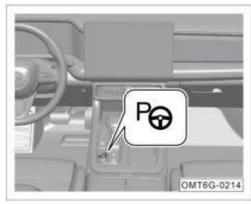
### **∆WARNING**

- The vehicle is equipped with radar only at the front and rear, creating blind spots on the sides. If an obstacle enters the vehicle's side, this system cannot detect it. The driver must actively observe, and if there is a risk of collision, the driver should brake in a timely manner.
- During parking, the driver should always caution to the vehicle's surroundings and be ready to brake at any time to avoid the system being unable to identify some obstacles and affecting parking safety, such as columns, stones, sharp objects, strip-shaped or sheet-shaped objects, low objects and suspended objects.
- When using this system, please look for a legal, appropriate, and safe parking location. This fusion parking system may not always detect objects in the parking space, so be sure to visually inspect and confirm that the parking space is suitable and safe.

# **∆WARNING**

- Although the fusion parking system can provide assistance to the driver during the parking process, it cannot park on behalf of the driver. Therefore, the driver must not be negligent when dealing with such operations!
- This function is only a driving assistance function; the driver remains fully responsible for the safety of the vehicle.
- When parking, the driver should observe the surrounding environment to avoid certain obstacles that the system cannot identify and affect driving safety.

# Start/stop/pause/interrupt fusion parking system



- 1. Open
- Fusion parking button on: After the vehicle is started, press the fusion parking button
   Pa to turn on the fusion parking system.

#### 2. Close

- Fusion parking button off: Press the fusion parking button again to turn off the fusion parking system.
- Host exit button shutdown: You can shut down the fusion parking system by pressing the "x" button in the upper left corner of the host.
- Pause
- After fusion parking is activated, the driver will pause the parking system by pressing the fusion parking button, braking, or opening a nondriver's door.
- 4. Interruption
- After the fusion parking system is activated, the driver will interrupt and exit the parking system if he presses the host exit button, turns steering wheel, steps on seat belt, operates gear, presses P gear, unfastens the seat belt, or opens the driver's door.

#### Limitations

Includes but is not limited to the following situations, where the fusion parking may pose safety risks and may not operate normally:

- Narrow parking spaces.
- Parking spaces contain the following objects: objects that do not effectively reflect radar sensor signals, and objects that are outside the detection range of the ultrasonic sensors, such as column-like objects, stones, sharp objects, strip or sheet-like objects, suspended objects, and low objects like wheel locks.
- The road has a steep gradient.
- Poor visibility (due to conditions such as nighttime, heavy rain, heavy snow, fog, etc.).
- The system may not detect the curb if it is made of material other than stone or if the curb is low.
- One or more ultrasonic sensors or IFC sensors are dirty or obstructed (such as being covered by mud or ice/snow).
- Weather conditions (heavy rain, snow, fog, extremely hot or cold temperatures) interfere with the operation of ultrasonic and IFC sensor.

- The sensors are affected by other electrical devices or equipment that can produce ultrasonic waves.
- Tire pressure is too high or too low.
- When the parking lines are unclear or lack contrast with the ground, the system may be unable to recognize the parking space.
- The system cannot recognize parking spaces when the vehicle's driving channel is narrow.
- If there is a car in the parking space, but it is relatively close to the inside, the system may misidentify the parking space.
- When using a self-selected parking space, the user must ensure that the selected parking space is legal, suitable and safe. When there is an obstacle in the selected parking space, the system may not be able to identify it. The user needs to caution at all times. If there is a risk, the user needs to brake in time.

### **i** NOTE

- After parking starts, caution not to touch Steering Wheel, otherwise you will exit fusion parking.
- During the activation of this system, please follow the prompts on the center console display for parking operations.
- Please search for parking spaces at a slower speed. When the speed exceeds 20 km/h, the system cannot search for parking spaces correctly.
- When searching for a parking space, the distance between the vehicle body and the space should be maintained at (0.5~1.5) m.
- When searching for a parking space, drive straight as far as possible without turning steering wheel, and keep the heading angle between the vehicle and the parking space at ± 6°.
- The standard effective horizontal parking space length for ultrasonic detection is 6.3 m, and the standard effective vertical parking space width is 3.2 m.

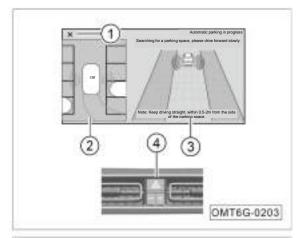
# iNOTE

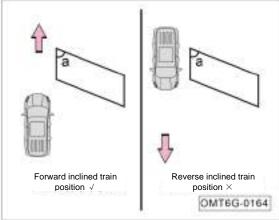
- The dimensions of standard horizontal and vertical parking spaces detected by the camera are 6 x 2.5 m, the dimensions of standard diagonal parking spaces are 7 x 2.5 m, and the angles of diagonal parking spaces are 45°/60°.
- This system does not always guarantee a complete search for parking spaces or successful parking. If no parking space is found or parking is unsuccessful, you can restart the fusion parking system to attempt parking again.
- During the parking process, when approaching the target parking space, the system may pause for a short time, which is normal.
- Maintain standard tire pressure in the vehicle.

# iNOTE

Troubleshooting issues of faults/interruption:

- After a vehicle failure or interruption, you can normally re-enter automatic parking assist by pressing the fusion parking button.
- In some cases, the vehicle must be turned off and restarted. If the fusion parking system cannot be accessed after all systems have cooled down and restarted, please visit a GAC Motor authorized shop for inspection and repair.





### **i** NOTE

- During parking, parking will be displayed in areas ② and ③ at the same time; area ② may not be fully displayed due to the image field of view. In this case, you can select parking area ③.
- When the vehicle is parking, the vehicle will automatically turn on the hazard warning lamps for you to increase parking safety warning; while ensuring the surrounding safety, you can press button (4) to turn them off.
- When parking in an inclined parking space, the system can only search for parking spaces in the forward direction and cannot search for parking spaces in the reverse direction. The forward angle a is 45°/60°.
- Automatic parking only supports parking out of horizontal parking spaces, and does not support parking out of vertical parking spaces or inclined parking spaces.

### **Operation instructions**

Taking automatic parking in as an example:

- 1. After the vehicle is started, press  $\Re$  on the secondary dashboard to enter the parking space search interface.
- 2. Searching for a parking space, you will be prompted to parking.
- 3. After parking, the message "Press the parking start button" will be displayed, and keep the brake pressed.
- 4. After pressing Start Parking, you will be prompted to release the brake and Steering Wheel. This means that the vehicle has entered fusion parking mode, and you need to wait for automatic parking assist/APA to complete or exit manually.
- 5. automatic parking assist/APA is in progress, please caution your surroundings.
- 6. automatic parking assist is completed.

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

The Electric Power Steering (EPS) Steering System is a power steering system. Steering System directly relies on Motor to provide torque.

It consists of sensors, Motor, reduction mechanisms and electric steering control units (ECUs).

The ECU controls the motor assist torque output in real time by detecting the driver's torque input, vehicle speed, engine speed and other vehicle status signals, providing the best steering assistance, ensuring the vehicle's low-speed steering agility and high-speed steering stability, and improving driving comfort and vehicle safety.

# CAUTION

After wheel alignment of the vehicle, the position of the center point of the angle sensor will be affected, so it is necessary to re-calibrate the center point of the EPS TAS. The left and right extreme angles of steering wheel are within 20°.

# **EPS** indicator lamp

When the vehicle power is in the 'ON' gear, the indicator lamp comes on. The system completes its self-test, and the indicator lamp turns off, indicating that the electric power steering (EPS) system is functioning normally.

If the indicator lamp (a) comes on after starting the vehicle or while driving, it indicates a fault in the electric power steering (EPS) system, and the instrument cluster display will show an alert: 'Please inspect EPS.' In this case, you should pull the vehicle over to a safe location, try turning off the vehicle and starting it again. If the indicator lamp does not go out or comes on again while driving, do not continue driving. Please promptly contact a GAC Motor authorized shop for inspect and repair.

### Steering mode

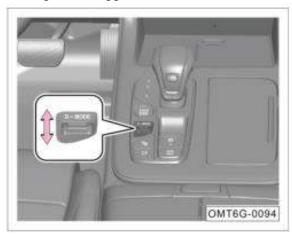
The steering modes include 'Light', 'Comfort', and 'Sport'. The Light mode requires less effort, the Comfort mode requires moderate effort, and the Sport mode requires more effort. The system defaults to "Comfort" mode. There are two ways to select the steering mode: 1) You can select it through AV system "Driving Mode → Current Mode Setting → Steering Mode"; 2) By switching driving mode, the system automatically sets the steering mode (see the "Driving Mode" section => see page 119)

### CAUTION

Please select the steering mode while keeping the steering wheel stationary.

### 5.7 Off-road mode\*

Driving mode toggle switch



By turning driving mode (D-MODE) toggle switch, the selectable off-road modes include: off-road-snow mode, off-road-mud mode, and off-road-sand mode. The mode selection is at the same level as energy-saving mode, comfort mode and SPORT mode.

When the terrain mode is selected, the corresponding mode information will be displayed on instrument cluster module and AV system, and a reminder will be displayed on instrument cluster module: "XXX mode is not suitable for paved roads" for 10 seconds.

#### Off-road-snow mode

- Only use on off-road terrain with deep snow, or on roads with very deep snow (same as on terrain with deep snow).
- Avoid using this mode on roads with shallow snow, which can make it difficult for the driver to control the vehicle occasionally.
- If the driver wants to drive on a shallow snowy road, please use Dynamic Driving Mode and avoid Snow mode if possible.

#### Off-road-mud mode

- Only for off-road muddy terrain, it is forbidden to use this mode on the road, it will cause transmission failure.
- On slightly muddy roads, use Comfort mode or energy-saving mode instead of Mud mode.
- Mud mode is different from snow mode in that when the driver turns and presses the accelerator pedal without muddy terrain, it is more difficult to control the vehicle than in snow mode.

#### Off-road-sand mode

- Only use it on off-road terrain, it is forbidden to use this mode on flat roads, it will cause transmission failure.
- Sand Mode The most off-road capable of the three off-road modes, Sand Mode provides superior driving capabilities not only in deep sand, but also on off-road slopes.
- On muddy roads, use Mud mode instead of Sand mode.

# Warning to deal with the "four-wheel drive system overheating" warning

- If the vehicle overheats in Eco/Comfort/Sport/Snow/Mud mode, just wait a few minutes for the warning to disappear and the 4WD function will be restored. If warning appears again after a while, either change to a relatively flat route; if road conditions do not allow, wait 20 minutes for the transmission to cool down.
- Overheating occurs on off-road sandy terrain, if the driver is not facing difficulties, just wait for the overheating to go away.

### **i** NOTE

Please select the appropriate terrain mode according to the actual terrain. Do not select the off-road mode on a flat road, otherwise the following situations may occur:

- You will feel vibrations and a strong sense of resistance when turning, which will cause increased fuel consumption and tire wear.
- Due to the improvement of off-road performance in terrain mode, the calibration parameters of each system are more aggressive. On flat roads, you need to drive the vehicle carefully to avoid aggressive driving that may cause the vehicle to lose control.

### **AWARNING**

Please release pedal if there is WARNING, otherwise the front wheel will sink, and you will have to wait for help.

# 5.8 Driving skills5.8.1 Pre-driving safety inspectionRoutine inspection

- Check the tire for high/low pressure, cuts, bulges, damage or excessive wear.
- Check whether the wheel bolts are missing or loose.
- Inspect headlamp, lamp, tail lamp, turn signal lamp and other lights are working properly; inspect headlamp.
- Check that the seat belt is not worn or damaged; check that the seat belt is fastened securely after fastening the seat belt.
- Check that the free travel of the pedal is sufficient.
- Check whether the levels of coolant, engine oil, brake fluid and windshield washer fluid are normal.
- Check whether the battery terminals are corroded or loosened, and whether the battery case is cracked or expanded.
- Check for leakage of fuel, engine oil, water or other fluids under the vehicle, and pay attention that water drip found after A/C operation is normal.

### Inspections after starting/during driving

- Check whether the instrument cluster module works properly; check whether any indicator lamp comes on or any alarm message is shown, etc.
- Check whether all control units (such as the lamplight combination switch, wiper combination switch and defroster switch) work properly.
- Check that the vehicle does not deviate to one side during braking on a road without safety risks.
- Check for other anomalies, such as part looseness, leakage and unusual noise.

### 5.8.2 Driving during running-in period

In order to ensure the service life of the vehicle, the vehicle must be run in at the initial stage of use before it can be put into normal use. When your vehicle is in the process of breaking in

Please follow the following rules during this period:

- The mileage in the running-in period shall be 1.500 km.
- Choose roads in good condition and drive it at reduced load and limited speed.
- Do not start the engine with full throttle or drive with harsh acceleration.
- Avoid emergency braking in first 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 vehicle 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 mileage in the running-in period of a new engine shall be 1,500 km. Do not perform the following operations if the vehicle mileage is within 1000 km:

- Keep the vehicle speed no higher than 3/4 of the maximum allowable speed.
- Do not drive the vehicle with full throttle.
- Avoid running the engine at high speed.
- Do not tow any trailer.

The vehicle mileage between (1000~1500) km allows for gradually increasing the engine rotation speed and vehicle speed to the maximum permissible range.

The internal frictional resistance of the engine at the beginning of running-in is much greater than that after running-in, and all the moving components of the engine can have the best fitting after running-in.

After fully running in, both the service life and the fuel efficiency of the engine can be improved.

### Running-in of tire and brake lining

Within the first 500 km of driving mileage, drive the vehicle at a moderate speed to get the new tires run in fully.

When the new vehicle has a mileage of (200~300) km, the brake lining has not yet reached optimal friction conditions. It is advised to drive at low speeds and avoid emergency braking as much as possible.

### **∆**WARNING

- A new tire and brake lining will not have the best adhesion and friction characteristics without running-in. Therefore, drive the vehicle cautiously within the first 500km to get the tires fully run in to prevent accidents.
- The new brake lining after replacement must also be subject to run-in in accordance with the above requirements.
- When driving vehicle, keep a proper distance from other vehicle to prevent the occurrence of emergency braking, as the new tires and brake lining have not fully run in at this time. If an emergency braking is applied, a traffic accident is likely to occur.

### **∆**WARNING

- If the brake is damp, frozen or the vehicle runs on a salted road, the braking effect will be reduced.
- When driving downhill, the brake has a heavy workload and are very prone to overheating. It is recommended that you shift into a low gear before driving downhill to reduce the vehicle speed, fully utilize the braking effect of engine's braking effect, and reduce brake load.
- 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 switch off the vehicle for coasting. Otherwise, the brake booster does not work and the braking distance greatly increases, which is very easy to cause an accident.

# 5.8.3 Driving essentials Precautions for different road conditions

- When the vehicle is driving on a road with crosswinds and gusts, please decelerate in advance and control the speed and steering wheel.
- Avoid driving on sharp objects or other road obstacle, otherwise it may cause serious damage such as tire burst.
- Reduce the speed and drive at a low speed while driving on a bumpy or uneven road; otherwise the chassis may be scratched, which result in vehicle damage.
- When the vehicle is being driven downhill, decelerate in advance; avoid emergency braking, otherwise the brake system will overheat or be worn prematurely.
- When the vehicle is running on a slippery road, be careful during accelerating or braking; avoid sudden acceleration or emergency braking, otherwise it is likely to cause wheel slip.
- The vehicle shall be driven at a low and constant speed on an icy and snowy road; avoid sudden acceleration or emergency braking; and install tire chains for the wheels as needed.

# Precautions when driving over a waterlogged road section

- Before driving over a water-logged road section, check the depth of water, which shall not be higher than the lower edge of the vehicle body.
- 2 If driving through water, turn off the A/C before starting the vehicle, reduce speed, then gently press the accelerator pedal without releasing it, to pass through flooded areas at a steady, slow speed.
- 3 Never Park the vehicle in water, and do not reverse or turn off the vehicle while it is in water.
- 4 After successfully driving through the water-logged road section, gently depress the brake pedal for several times to evaporate the moisture on the brake discs so as to restore the braking performance as soon as possible.

### **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. Check if the coolant is in good condition and if it has good anti-freeze effect as follows:
- Fill the cooling system with the coolant of the same type as the original one according to the ambient temperature.
- Using inappropriate coolant will damage engine.

- 2. Check the battery and cables as follows:
- A low temperature in chilly days will reduce the capacity of battery, and therefore, fully charge the battery for startup in winter.
- 3. Prevent the door lock from being frozen by ice and snow as follows:
- Spray some de-icer spray or glycerin into the door lock hole to prevent the door lock from being frozen.
- 4. Use washer fluids containing antifreeze:
- These products are available at GAC Motor authorized shop.
- The mix ratio of water to antifreeze shall comply with the manufacturer's instructions.
- 5. Avoid accumulated ice and snow beneath the mudguard:
- Accumulated ice and snow beneath the mudguard may result in difficult steering.
   When driving in the cold winter, stop the vehicle regularly and check whether there is ice and snow under the mudguard.

- 6. It is recommended to bring some necessary emergency items according to the road conditions, such as:
- Tire chains, a window scraper, a bag of sand or salt, a flashing light, a plough staff, connecting cables, etc., which are recommended to be placed in the vehicle.
- 7. In the cold winter, you should avoid the situation where the engine starts frequently and stalls after a short startup time. 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.
- When starting the vehicle in low ambient temperatures, the 'READY' indicator lamp may take longer to flash. Keep the vehicle stationary until the 'READY' indicator lamp comes on steadily; a steady light indicates that the vehicle can be moved.

# 5.8.4 Efficient operation of vehicle

- Before driving, make sure that the parking brake is completely released and the parking brake indicator lamp is off.
- Maintain sufficient tire pressure, as a too low tire pressure can cause premature tire wear and higher fuel consumption.
- Ensure that the wheel alignment is accurate.
   Otherwise, it will cause premature tire wear, increased engine load and higher fuel consumption.
- Do not overload the vehicle, and unload unnecessary items from the vehicle, as excessive load will increase the engine load and the fuel consumption thereafter.
- Accelerate the vehicle slowly and smoothly to avoid rapid acceleration.
- Avoid roads with traffic jams as much as possible, as driving in traffic jam will increase the fuel consumption.
- Drive according to traffic lights, or keep a safe distance from other vehicle to avoid unnecessary parking or emergency braking, which can save fuel and reduce brake system wear.

- Do not rest your foot on the brake pedal while driving, as this can cause premature wear, overheating of the brake lining, and wasted fuel.
- When driving, select good road surface. If driving on uneven roads, control the vehicle speed to avoid collision or scratches.
- If the chassis is stained with objects such as excessive dirt, clean them in time to reduce the vehicle's weight and prevent corrosion.
- Perform regular maintenance on the vehicle to maintain its optimal working condition, as dirty air cleaner, spark plugs, oil, and grease will reduce the engine performance and increase fuel consumption.
- When starting the engine at a low temperature, drive slowly for a few minutes, and ensure the engine is warmed up before acceleration.
- Do not open windows when driving at high speed.
- Properly use the A/C, etc.
- In case of parking for a long time, please shut down the engine to avoid wasting fuel due to long-term idling of engine.

# 5.8.5 Fire prevention

In order to prevent vehicle fires, pay attention to the followings during use:

- 1. Do not store flammables or explosives in the vehicle:
- In hot summer days, the inside temperature of vehicles parked in the sun can be as high as 70°C or more. If flammables or explosives such as lighters, cleaning agents and perfumes are stored in the vehicle, fire and even explosion will be likely to occur.
- Items with risk of fire such as lithium batteries or power banks left in the vehicle by passengers are also likely to cause fire.
- 2. Make sure the cigarette butts are completely extinguished after smoking:
- If the cigarette butts are not completely extinguished, fire may be caused.

- 3. It is recommended to regularly drive to the GAC Motor authorized shop for inspections:
- Also subject all electric lines of the vehicle to regular inspections. Specifically speaking, check whether the connectors, insulation, and fixed positions of electrical components and harnesses are normal, and handle any problems found during inspection in a timely manner.
- 4. Do not modify the electrical circuits or install additional electrical components:
- Installation of additional electrical consumers (such as high-power audio device) will cause excessive load on the electrical line, causing overheating and even fire of harnesses.
- Never use fuses that exceed the rated specifications of the electrical consumer or other metal wires to replace the fuses.

- 5. Driving precautions:
- During driving and parking, especially in summer, be sure to check if there are flammables such as hay, dry branches, leaves and wheat stalks under the vehicle, as they may be ignited by the components heated after long-time driving, such as engine exhaust pipe.
- Neither park the vehicle next to garbage dumps or in the other places severely plagued by rats, nor place anything that may attract rats, such as snacks, as rats tend to bite and damage the vehicle's harnesses, thus causing fire.
- 6. Always place a lightweight fire extinguisher in the vehicle, and know its operation method:
- In order to ensure the safety of the vehicle, it shall be equipped with fire extinguisher, and shall be checked and replaced regularly; at the same time, be familiar with the use of fire extinguisher, and be prepared to avoid being helpless in case of accidents.

# 6.1 Maintenance instructions Safety precautions

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

- Make sure that the vehicle is parked on level ground, shut down the engine, and apply the parking brake.
- When cleaning parts and components, use the commercially available de-greaser or parts cleaning agent, instead of gasoline.
- Keep lit cigarettes, sparks, and open flames away from batteries and all fuel system related components.
- When working on batteries or with compressed air, wear goggles and protective clothing.

# **∆**WARNING

Incorrect vehicle maintenance or driving the vehicle before the problem is solved may cause a traffic accident, resulting in serious injury or death.

### Potential hazards of the vehicle

- Carbon monoxide: Since carbon monoxide in the exhaust gas of the engine is toxic, be sure to run 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 parts and components.

# CAUTION

This section lists some of important safety precautions. We cannot 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 cannot be cleaned, it is required to use a special solvent-free plastic cleaning agent for cleaning.

### CAUTION

Solvent-based cleaning agents can damage plastic parts.

### **∆**WARNING

Do not use cab sprays and solvent-based cleaning agents to clean the surface of the instrument panel and airbag components. Otherwise, it may loosen the surface and trigger the airbag, which may cause serious injury to passengers.

### **Cleaning and maintenance of carpets**

- 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.

# **AWARNING**

Do not add water to the foam cleaning agent. 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.

### **AWARNING**

Never leave a soft cloth wet with leather stain remover on any part of the interior trim 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.
- Use a soft brush and mild soapy water to remove dirt from the seat belts.
- After seat belts dry completely, retract the seat belts.

### CAUTION

- You must wait for the seat belt to dry completely before retracting it. Otherwise, seat belt retractors may be damaged.
- Check all seat belts in the vehicle regularly to ensure that the seat belts are clean so as not to hinder their normal operation.

### **⚠** WARNING

- If the seat belt webbing, connectors, retractor mechanism or buckles are damaged, please go to the GAC Motor authorized shop for replacement as soon as possible.
- For the overhaul of an accident vehicle, seat belts must be replaced, no matter whether they are damaged.
- Prevent foreign matter or liquid from entering the seat belt buckle, causing buckles and seat belts to fail to work normally.
- In any case, do not disassemble and modify the seat belt without permission.
- Do not use chemical cleaning agents to clean the seat belt, so as not to cause damage to the seat belt base and affect its function.

### Cleaning and replacement of filters

The vehicle is equipped with an air cleaner, an A/C filter, an oil filter, and a fuel filter. They aim to filter gases or fluids. If they are too dirty or clogged, the normal operation of corresponding systems will be affected. Therefore, it is recommended to regularly clean or replace the filters at the GAC Motor authorized shop according to the provisions of the *Warranty and Maintenance Manual*.

# 6.3 Exterior maintenance Vehicle washing

Washing the vehicle frequently helps to protect its appearance.

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

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

# **∆**WARNING

Before washing the vehicle, the power supply must be turned off.

### CAUTION

The paintwork of the vehicle body is strong enough to withstand the washing of the automatic vehicle washer. However, it is important to pay attention to the effects on the paintwork. The structure of the automatic vehicle washer, the cleaning agent, the filtering state of the clean water, and the type of wax solvent that does not meet the requirements may cause damage to the paintwork.

### Manual vehicle washing

- Rinse the vehicle with plenty of clean water to remove floating dust.
- Prepare a bucket of water and add a special cleaning agent for car washing to it.
- Gently scrub the vehicle with a soft cloth, sponge, or soft brush, and rinse it several times from top to bottom.
- The wheels, door sills and other parts shall be washed finally, and sponges or soft cloth shall be replaced when washing the vehicle.
- After scrubbing, rinse the vehicle thoroughly with plenty of water.
- After washing, carefully dry the paintwork of the vehicle 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 vehicle in accordance with the operation instructions and requirements of the steam cleaner or high-pressure cleaner. Pay attention to the working pressure, temperature and spraying distance:

 When using a steam cleaner or a highpressure cleaner to wash the vehicle, keep a sufficient water spray distance from the vehicle, and ensure the temperature does not exceed 60°C.

- If the vehicle is equipped with an electric sunroof, keep a water spray distance of more than 80 cm. The vehicle may be damaged, if the high-pressure cleaner is too close to the vehicle or its pressure or temperature is too high.
- Do not wash the radar sensor or parking assist camera with a high-pressure cleaner for a long time; when washing the radar sensor or parking assist camera, keep a water spray distance of more than 30 cm.

### **⚠** WARNING

- Pay attention to personal safety when washing the vehicle manually, and beware of vehicle bottom edges and corner parts to avoid scratches.
- When cleaning, pay special attention to the bottom of the vehicle and the inside of the wheelhouse, and do not hurt your hands and arms by sharp components.
- When cleaning the vehicle, do not directly flush water into the engine compartment. Otherwise, it will affect the service life of various parts and components in the engine compartment.

## Waxing

Regular waxing can protect the paintwork of the vehicle body and keep the vehicle body clean. In order to effectively protect the paintwork of the vehicle body, it is recommended to apply high-quality hard wax once a year to protect the paintwork against corrosion by external bad environments and to resist light mechanical scratches.

Be sure to wipe the appearance of the entire vehicle dry before waxing. Before waxing the vehicle, please select a high-quality paintwork wax protectant. High-quality wax protectant generally falls into the following two types:

- Car body wax: A wax used to protect the paintwork against damage by external bad environments such as sun exposure and air pollution. This type of wax is generally used for new vehicles.
- Polishing wax: A wax that can restore the gloss of the paintwork that has been oxidized or tarnished. This type of wax is generally used to restore the gloss of paintwork.

# Cleaning and maintenance of external plastic parts

External plastic parts are generally washed with clean water, a soft cloth and soft brushes. If they cannot be cleaned, please use the special solvent-free plastic 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 cleaning agent, and then wipe the glass surface dry with a clean soft cloth.

After curing the surface of the vehicle body, remove the wax residue on the glasses with a special cleaning agent and cleaning cloth. Avoid scratching the wiper blades.

Remove snow from the windows and rearview mirrors using a small brush.

Remove accumulated ice using de-ice 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

- Do not scrape the surface back and forth.
- Do not use warm or hot water to remove ice and snow from windshield and rearview mirror. Otherwise, the windshields may burst.
- If there are residual rubber, grease and silicone substances on the glass, they must be removed with special window cleaning agent or silicone cleaning agent.

## Cleaning and maintenance of wiper covers

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 vehicle power supply button to the "ON" position and then to the "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.

- Raise the wiper arm and carefully wipe off the dust and dirt on the wiper blade with a soft cloth.
- After cleaning, gently lower the wiper arm to the windshield glass.
- Switch the vehicle power to the "ON" gear and the wiper automatically return to their original position.

## CAUTION

- Be careful when lowering the wiper arm to prevent it from falling and hitting the windshield glass instantly.
- The wiper blade surface is coated with a layer of graphite, which can make the wiping smooth without scratching noise. Solvent-based cleaning agents, hard sponges and sharp objects can damage the graphite layer. The damage to the graphite layer will increase the wiping noise of the wiper, so it should be replaced in time.
- In winter or cold conditions, be sure to check that the wiper blades are not frozen to the windshield before using the wiper. If so, perform de-icing first. Otherwise, the wiper blade and wiper motor will be damaged.

## **Maintenance of sealing strips**

Frequent and proper protection of the rubber sealing strips of the doors, windows and other parts of the vehicle is intended to maintain their flexibility and prolong their service life. Such protection can also improve the tightness, make the door easy to open, reduce the impact sound of closing the door, and prevent freezing in winter. And prevent freezing in winter.

When performing maintenance on sealing strips, remove dust and dirt from surfaces using a soft cloth. Apply the 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 cleaning agents every two weeks.
- Apply high-quality hard wax to the alloy wheels every three months.

## CAUTION

- Do not maintain the wheel surface with vehicle polish or other abrasives.
- The wheels with damaged protective coating on surface must be repaired in time.
- Using a high-pressure cleaner may cause permanent visible or invisible damage to the wheels, resulting in serious injury or death.
- Do not spray the tire with cluster nozzles, otherwise, it will cause damage to the tire and cause traffic accidents.

# 6.4 Inspecting and adding of fluids 6.4.1 Fuel

As the amount of fuel decreases when the vehicle is running, the fuel gauge scale will gradually decrease.

When the fuel level is too low, the yellow indicator lamp Inflashes, and the instrument cluster module will give an alarm message.

## Adding fuel



 Press and hold the fuel tank cover opening button and fuel tank flap will pop up.



2. Open the fuel tank flap completely, and slowly unscrew the fuel filler cap counterclockwise as arrowed. Keep the fuel filler cap at the original place for a while before it is unscrewed completely to allow the fuel tank to release the fuel vapor inside, and then remove it.



- 3. Hang the fuel filler cap inside the fuel tank flap and begin adding fuel.
- 4. After refueling, tighten the filler cap clockwise until a "click" sound is heard, indicating that the filler cap is fully tightened.

## **◆** NOTE

- Please add fuel according to fuel marked on the fuel filler port.
- The fuel supply system of this model adopts a closed oil and gas recovery system. When refueling, the refueling gun switch may be triggered and the refueling gun may jump even the refueling is not enough due to high ambient temperature or too fast refueling, which is a normal phenomenon. In this case, the refueling should be slowed down.

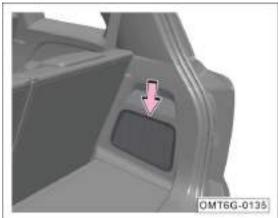
## CAUTION

 Using low-grade fuel or substandard fuel may damage the engine or make the engine fail to meet performance requirements.

## **⚠** WARNING

- At any time, be sure to shut down the vehicle 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.

## Emergency release of the fuel tank flap.



A fuel tank cap emergency pull cable is installed on the right side of trunk. In special circumstances, the fuel tank cap can be opened from the inside:

1. Pry open the decorative cover at -arrow-position.



2. Pull the emergency cable ① to open the fuel tank cap.

## 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

The engine has been filled with high-quality engine oil, which can be used in the year-round climate except for extreme cold weather before delivery.

When purchasing engine oil, please check whether the specifications indicated on the outer packaging of the engine oil are suitable for the engine of this vehicle.

## iNOTE

- Oil grade: API SN.
- Engine oil viscosity: SAE 5W-30.

## **i** 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, the engine idles for a long time (e.g., a taxi), the vehicle is driven in a high-dust area, the vehicle often tows a trailer, or the vehicle is used in an alpine area, the maintenance cycle shall be shortened, and the maintenance times shall be increased.

## **⚠** WARNING

Always use the engine oil approved by our company. If oil of other grades is used, the engine damage caused by this will not be covered under the quality warranty.

## **Engine oil pressure warning light**

While driving, if the warning lamp comes on, you must pull over in a safe location and turn off the vehicle. After the engine cools down, perform an inspection of the oil level.

If the oil level is normal and the warning lamp still comes on after starting the vehicle, do not continue to start the vehicle. Contact a GAC Motor authorized shop for inspection and repair promptly.

## **⚠** WARNING

- Ignoring the warning lamp and related warning instructions may damage the engine.
- Low oil pressure warning lamp cannot indicate the oil level, so the oil level must be checked regularly.

## Inspecting the oil level

It is essential to regularly inspect the oil level. Park the vehicle on a level surface and engage the parking brake. Turn off the vehicle, and after the engine cools down, open the engine hood to check the oil level.

#### **i**NOTE

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

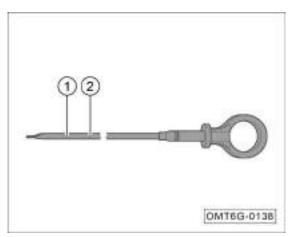
## **∆**WARNING

- Be careful when working in the front engine compartment.
- The front engine compartment is a highrisk area. Be sure to carefully read and observe the relevant instructions before opening the engine hood.

## 6. In-service maintenance



1. Pull out oil.



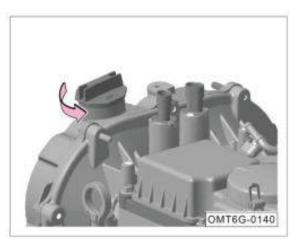
- 2. Wipe off the oil stains on the dipstick using a clean cloth, and then insert the oil dipstick into the end.
- 3. Pull out the oil dipstick again and read the measured oil level: the oil level should be between the lower limit mark ① and the upper limit mark ②.
- 4. If there is too little engine oil, please add engine oil in time. Otherwise, poor lubrication will damage the engine.

## Adding engine oil



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

1. Lift up and remove the engine upper guard plate.



- 2. Unscrew the oil filler cap counterclockwise.
- 3. Add the engine oil in small quantities several times, and check the oil level after each filling.
- 4. When level is close to upper limit mark ②, oil is sufficient. Stop adding oil, install filler cap and tighten it clockwise.

## **AWARNING**

- Be careful when adding the engine oil. Do not spill it. If the engine oil gets on your skin, be sure to rinse the skin thoroughly.
- If there is too much oil after filling, do not start the vehicle. Please contact a GAC Motor authorized shop for assistance as soon as possible, or it may damage the catalytic converter.
- After filling, the oil filler cap must be tightened to prevent oil from splashing out when the vehicle is started, which could lead to a fire.
- The engine oil is a toxic substance. Store the engine oil in the original container and keep out of reach of children to avoid poisoning by accidental ingestion.
- Do not add other lubricants to the engine oil, otherwise, the engine will be damaged, and the fault caused by adding lubricant is not within the scope of warranty.

#### 6.4.3 Coolant

#### **Function of coolant**

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

## **Coolant specifications**

When the vehicle leaves the factory, the cooling system has been filled with coolant. Except for extremely cold weather, coolant can be used throughout the year. Meanwhile, it can prevent the cooling system's alloy components from corrosion and the scale of the cooling system.

#### **i** NOTE

- Coolant specifications: DF-6, -35°C coolant.
- Be sure to go to the GAC Motor authorized shop to change coolant according to the period specified in the Warranty and Maintenance Manual.
- If coolant changes color, shorten the maintenance cycle and go to the GAC Motor authorized shop for change.

## High engine coolant temperature indicator lamp

Always observe the temperature gauge of engine coolant during driving.

If the coolant temperature is too high, the indicator lamp on the instrument cluster module comes on in red, and an alarm message is given to prompt the driver; at this time, the vehicle must be stopped in a safe place and the engine shut down. After the engine cools down, check the coolant level.

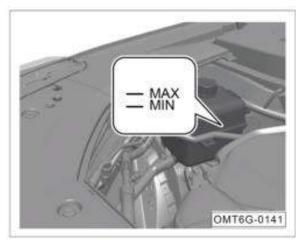
If the coolant level is normal and the indicator lamp still comes on after starting the vehicle, do not continue to start the vehicle. Contact a GAC Motor authorized shop for inspection and repair promptly.

#### Inspecting the coolant level

It is essential to regularly inspect the coolant level. Park the vehicle on a level surface and engage the parking brake. Turn off the vehicle, and after the engine cools down, open the engine hood to check the coolant level.

## **∆**WARNING

- Be careful when working in the front engine compartment.
- The front engine compartment is a high-risk area. Be sure to carefully read and observe the relevant instructions before opening the engine hood.
- If steam or coolant flows out from the engine compartment, do not open the engine hood, for fear of burns; wait till there is no steam or coolant overflowing and the system cools down before opening the engine hood.



Inspect the coolant levels in each expansion tank to ensure they are between the upper limit mark 'MAX' and the lower limit mark 'MIN'.

## **i** NOTE

When the engine is not cooled, the coolant level will be high, and there will be errors in checking the coolant level.

## CAUTION

When the coolant level is below the lower limit mark "MIN", coolant must be added. Insufficient coolant will affect the cooling effect and cause damage to the engine.

## **Adding coolant**



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

- 1. Wrap the expansion tank cap with a thick cloth and unscrew it counterclockwise.
- 2. Add coolant till the upper limit mark "MAX".
- 3. Tighten the expansion tank cap clockwise to the lock position.

## CAUTION

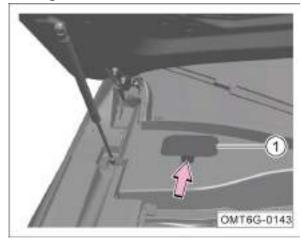
- When the engine is not cooled down, and the cooling system is under high pressure, do not open the expansion tank cap; otherwise you will be scalded by the gushing coolant.
- Coolant can only be added after the engine has cooled down. The coolant level after filling must not exceed the upper limit mark "MAX". Otherwise, when the vehicle is started and the cooling system is under high pressure, coolant will overflow.
- Only fresh coolant is allowed to be added.

## **⚠** WARNING

- It is forbidden to mix coolant that has not been approved by our company in the original coolant. Otherwise, the engine may be damaged due to incompatibility.
- 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 coolant is consumed too fast, there may be a leak in the cooling system. In this case, please go to the GAC Motor authorized shop for inspection in time.
- Coolant must be contained in the original container, and kept out of children's contact to avoid poisoning due to accidental ingestion.

## 6.4.4 Windshield washer fluid and wiper blades

## Adding windshield washer fluid



1. Press the lock in the direction of the arrow buckle the cover ①.



- 2. If the washer fluid level is found to be too low, add the washer fluid into the reservoir in time.
- 3. After the addition is completed, install the cover plate ①.

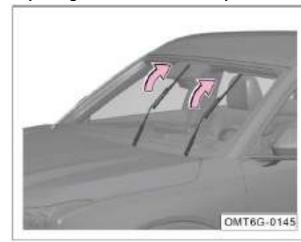
## CAUTION

Do not mix the windshield washer fluid with other washing liquids, otherwise, it will cause the washer fluid components to decompose and block the windshield washer nozzle.

## **∆**WARNING

- Be careful when working in the front engine compartment. Before operation, be sure to carefully read and follow the relevant instructions.
- Do not misuse coolant or any other additives as windshield washer fluid. Otherwise, oil stains will be left on the windshield during cleaning of the windshield, which will affect the visibility and easily cause accidents.
- It is forbidden to use windshield washer fluid with ethanol content exceeding 10%. In high temperature environment, this type of windshield washer fluid will have corrosive effect on lamps and lead to cracking of lamps. It is recommended to use methanol washing solution.

## Replacing of front windshield wiper blades



- Set the vehicle power supply button to the "ON" position and then to the "OFF" position.
- Within 10 seconds, turn the wiper combination switch to the MIST gear. The wiper arm will operate for half a cycle and then stop.

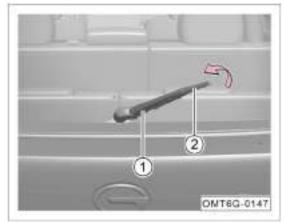


- 3. Lift wiper, press lock button, and disassemble wiper blade.
- 4. Disconnect wiper blade from the washer hose and remove wiper blade.
- 5. Slowly lower the wiper arm.
- 6. Install the new wiper blade into the wiper arm in reverse steps. It is installed in place when a "click" is heard.
- 7. Gently put the wiper arm back onto the windshield glass.
- 8. Switch the vehicle power to the "ON" gear or start the engine, and the wiper will automatically return to its original position.

## Wiper can be turned on in the following two ways

- The wiper is in the "OFF" gear. Click wiper function soft key through audio system settings to turn wiper to the high position, and click it again to return to the original position.
- Switch the vehicle power to the "ON" gear, then to the "OFF" gear, and within 10 seconds, turn the wiper to the MIST position, and the wiper will move to the high position and then stop.

## Replacing of rear windshield wiper blades



- 1. Hold wiper ① with your hand and push wiper blade ② hard in the direction of the arrow to disassemble the wiper blade.
- 2. Slowly lower the wiper arm.
- Install the new wiper blade into the wiper arm in reverse steps. It is installed in place when a "click" is heard.
- 4. Gently put the wiper arm back onto the windshield.

## **i** NOTE

To replace the wiper blade, it is recommended to go to the GAC Motor authorized shop for replacement.

## CAUTION

- New wiper blades with the same length and specifications as the previous ones must be used.
- Be careful while lowering the wiper arm to prevent it from falling and hitting the windshield glass instantly.
- The status of wiper blades must be checked regularly and replaced as required. Damaged wiper blades must be replaced in time.
- Excessive worn or dirty wiper blades are easy to scratch the windshield glass, and will affect the field of vision and reduce driving safety during use.

#### 6.4.5 Brake fluid

#### Function of brake fluid

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

The brake fluid is water-absorbent, so it can continuously absorb moisture in the surrounding air during use. If the brake fluid remains in the system for a long time and the water absorption is too high, air resistance will be generated in the system pipeline during braking, which will reduce the braking effect, affect driving safety, and even lead to complete failure of the brake system, causing accidents. Therefore, be sure to go to the GAC Motor authorized shop to check the brake fluid level or change the brake fluid according to the period specified in the *Warranty and Maintenance Manual*.

## **i**NOTE

Specifications of brake fluid: DOT4.

## **∆**WARNING

- The use of waste brake fluid or improper brake fluid will greatly reduce the braking effect and even cause brake system failure! The company does not assume any responsibility (including quality guarantee) for vehicle failures and damage caused thereby.
- Brake fluid in use must meet the criteria and be fresh.

## **Brake system indicator lamp**

When the vehicle is running, if the indicator lamp ① comes on in red, and the instrument cluster displays the information "Please add brake fluid", be sure to immediately stop the vehicle at a safe place and check whether the brake fluid level is normal.

## Inspection of the brake fluid level



When the engine cools down, check whether the brake fluid level is between the upper limit mark "MAX" and the lower limit mark "MIN".

During vehicle operation, the brake fluid level may decrease slightly due to the wear of the brake lining and automatic adjustments.

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

## **i** NOTE

- Be sure to carefully read and observe the relevant instructions before opening the engine hood.
- •• If the brake fluid level is checked to be below the lower limit mark "MIN", the brake fluid must be added.
- If the brake system lamp does not go out or comes on again during driving after adding the brake fluid, there may be a leakage in the brake system that causes the brake level decreasing too fast or the brake system may be faulty. In this case, do not continue driving. Please contact the GAC Motor authorized shop for inspection and repair in time.

## Adding brake fluid

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

- 1. Open the brake fluid reservoir cap counterclockwise.
- 2. Add fresh brake fluid to 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 paintwork shall be wiped off in time.

## **⚠** WARNING

- Brake fluid is a poisonous substance and must be packed in the original sealed container and placed in a safe place. Beware of children's contact, so as to avoid poisoning by accidental ingestion.
- Brake fluid must be stored in accordance with environmental protection laws.

# 6.5 Battery Battery symbols and instructions for battery operation

•	
$\Theta$	Goggles must be worn during operation!
A	The battery electrolyte is highly corrosive. Protective gloves and goggles must be worn during operation!
8	Open flames, sparks, uncovered lamps and smoking are prohibited in the workplace!
A	An extremely explosive gas mixture is generated during battery charging!
8	Children must keep away from electrolytes and vehicle batteries!

If you are not familiar with the operating procedures or do not have special tool, you must not perform any work on the vehicle's electrical system. It is recommended to contact GAC Motor authorized shop.

## **Charging system warning lamp**

The warning lamp is used to indicate alternator failure.

Switch the vehicle power to the 'ON' gear. When the engine is not started, the warning lamp will come on; after the vehicle starts, the warning lamp should go out.

While driving, if the warning lamp comes on, it indicates a fault in the charging system. You should promptly visit a GAC Motor authorized shop for inspection and repair.

## Check the battery

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



- 1. Remove guard of the cabin\*.
- 2. Remove the battery positive cap.
- Check the connection of the battery connector and the cable for corrosion or looseness; check the appearance of the battery for cracks and swelling. If the above conditions occur, please promptly visit a GAC Motor authorized shop for inspection and repair.
- 4. If the vehicle is not used for a long period of time, check the battery condition frequently.

## **i** NOTE

- If the battery level is insufficient or the battery is damaged, which makes it difficult to start the vehicle, please contact the GAC Motor authorized shop in time to charge or replace the battery.
- If it is required to replace the battery, please go to the GAC Motor authorized shop for replacement; if a wrong type of battery is used, the vehicle may not run due to incompatibility or the electrical system may fail.

## Instructions for using the battery

If the vehicle power is in the 'OFF' position and the vehicle is not started, using electrical devices will cause the battery to discharge quickly:

- Do not use electrical devices for an extended period when the vehicle power is in the 'OFF' position and the vehicle is not started.
- 2. When leaving the vehicle, make sure that the doors are closed and all electrical devices (e.g., lamps) are turned off.

## CAUTION

- When the vehicle cannot be started due to a low battery, you can try emergency starting; if the vehicle still cannot be started, please contact a GAC Motor authorized shop for inspection and repair.
- To avoid damage to the electrical system of the vehicle, never connect power generation equipment such as solar panels or vehicle battery chargers to a power outlet.
- The battery contains toxic substances such as sulfuric acid and lead, so it must be properly disposed of and must not be treated as ordinary household waste.

#### 6.6 A/C filter

## Inspecting and cleaning of 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 passenger side. Disassembling the A/C filter involves complex components; to avoid unnecessary damage, it is recommended to have the A/C filter inspected, cleaned, or replaced at a GAC Motor authorized shop.

# 6.7 Replacing of bulbs Instructions for replacing the bulbs

All vehicle lamps are LED and cannot be disassembled or replaced individually. If there are issues such as bulb damage or malfunction, please promptly visit a GAC Motor authorized shop for inspection and repair.

## **AWARNING**

Modifications to external lighting and signaling devices are prohibited.

#### 6.8 Wheels

## **AWARNING**

The road adhesion of new tires is unlikely to reach the best condition. Therefore, the vehicle 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 you find uneven and excessive tire wear, go to the GAC Motor authorized shop for inspection as soon as possible.

## **∆**WARNING

If tires burst or leak when the vehicle is running, it is very easy to cause serious traffic accidents.

- Never use damaged tires and wheels or use tires whose treads have been worn to the wear indicator. Otherwise, it is very easy to cause accidents, because such tires may burst during driving, causing traffic accidents and injuries. Such tires and wheels shall be replaced in time.
- The tire pressure must meet the regulations. Otherwise, it may cause an accident. If the tire pressure is insufficient, the vehicle driving at high speed will cause the tire to deflect, and the tire will easily overheat, which may cause tire shelling or tire bursts.
- Do not expose tires to chemicals, oil, grease, fuel and brake fluid.

## **AWARNING**

- Used wheels and tires of unknown origin should not be used under any circumstances, as such wheels and tires may be damaged without visible damage and may cause loss of control and a traffic accident while the vehicle is in motion.
- It is recommended not to use a retread tire. As the service life of such tires passes, the carcass may change, and the durability may also be limited and driving safety may be affected.

#### Precautions for wheel failure

- When driving over curbs or similar obstacles, keep a slow speed in the vertical direction of the obstacles as much as possible.
- Do not contact the tire with grease, oil and fuel.
- Regularly check the tire damage (such as cutting, wear, falling off, deformation or bulge).
- Regularly remove debris embedded in the grooves of the tire pattern.

## Instructions for storing tires

- Before removing the tire, mark the tire to indicate the rotation direction of the tire, and reset it according to the mark when installing the tire to keep the rotation direction and dynamic balance state of the wheel unchanged.
- Store the removed wheels or tires in a cool, dry place, and preferably in a dark place.
- The tire mounted on the rim must not be stored upright.

#### New tires and wheels

- Select the new tire and wheel carefully, and make sure that the dimensions, load range, rated speed and structure type of the new tire are the same as those of the original one.
- Do not replace only one tire separately, but at least replace two tires on the same axle at the same time.
- Do not mix tires of different sizes or types, and do not mix summer, all-season and winter tires.
- After each wheel installation, check whether the wheel bolts are tightened to specified torque (125±10 N•m).

## Non-full-size spare tires

Spare tires and standard tires are different in aspects such as structure, pattern, speed rating and load index, and cannot be exchanged.

After emergency use of the spare tire, it is necessary to drive safely to the GAC Motor authorized shop or wheel repair shop for all-sizes tire replacement as soon as possible to avoid driving safety hazards caused by long-term use of the spare tire.

## **∆**WARNING

- Spare tires can only be used temporarily for emergency, and the maximum driving speed shall not exceed 80 km/h.
- The storage and service life of spare tires is 6 years. It is prohibited to use them beyond the time limit.

#### Summer tires

Summer is a rainy season. The tire tread depth directly affects driving safety in rainy days. When the tread depth of a summer tire is lower than 3mm, it is highly likely for the vehicle to slip on water.

#### Winter tires

Winter tires still have good grip performance when roads are covered with snow and ice. The specially designed rubber tread makes the tires less affected by a low-temperature environment and excellent braking ability, ensuring driving safety.

- Use winter tires on all the four wheels.
- Use only radial winter tires of the same dimensions, load range and rated speed as the original ones and approved for the vehicle.

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

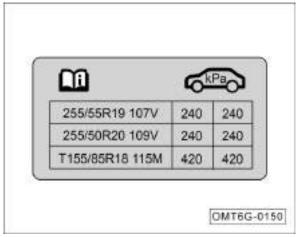
#### **AWARNING**

- Winter and summer tires are designed according to their respective typical lane driving conditions under the corresponding seasonal conditions. It is recommended to use winter tires in winter. At low temperatures, the adaptability of summer tires is significantly poorer, thereby losing road adhesion and braking ability.
- In severe cold conditions, if the summer tires are used, cracks may appear on the tires, which can completely damage them and cause excessive tire noise and loss of balance.

#### **∆**WARNING

- After using the winter tire, there may be reduced driving traction on dry roads, increased road noise and shorten Please pay attention to the performance change of the vehicle in terms of maneuvering and braking after the winter tires are used.
- Please note that the maximum speed for winter tires is relatively low. Do not exceed the allowable maximum speed for the tires.
- Please note that please replace the winter tires with summer tires in time in order to ensure driving safety and performance when driving in the environment at the atmospheric temperature rising above 7C.
- 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 label of standard pressure data of original tires of the vehicle is pasted on the B pillar at the driver's side.

- 1. Check the tire pressure value suitable for the vehicle from the label (the listed pressure values applicable to both summer and winter tires).
- 2. 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.
- 4. Attach the tire pressure gauge to the valve.

- 5. 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. Balance the weight of passengers and luggage, avoid slopes, and adjust tire pressure according to vehicle load.
- 7. The spare wheel pressure should be inspected at the same time.
- 8. Install and tighten the valve cap.

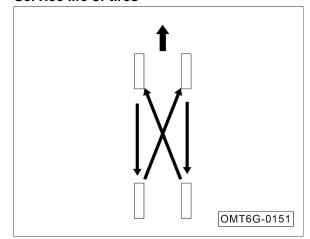
## **i** NOTE

- The current wheel tire pressure can be viewed through the instrument cluster display information.
- Be sure to put the valve cap back on the valve core. The valve cap protects against the ingress of dirt, debris and moisture.

## **AWARNING**

- Abnormal tire pressure may cause tire bursts, 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 bursts.
- Too low or too high tire pressure will cause early wear of the tire and reduce the steering stability of the vehicle.

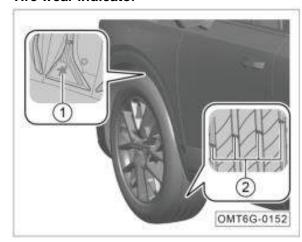
#### Service life of tires



Service life of tires depends on tire pressure, driving style and tire assembly conditions.

If the front tires are worn more seriously 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 figure 1 is used to indicate the wear condition of the tire's outer circle pattern. If the tire's outer circle pattern wears to the condition as shown, the tire can no longer be used safely and must be replaced immediately.

The tread wear indicator mark ② is 1.6 mm high. If the tread pattern wears to the marked surface, the tire can no longer be used safely and must be replaced immediately.

#### Wheel balance

The wheels of the new vehicle are balanced, but during operation, the wheels may be unbalanced due to various reasons, which can be manifested by the vibration of the steering mechanism.

Because unbalanced wheels can cause excessive wear on the steering system, wheel suspension mechanism and tires, the wheels shall be rebalanced.

In addition, wheels must be rebalanced after installation of a new tire or tire repair for any wheel.

## Wheel misalignment

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 promptly go to the GAC Motor authorized shop to check the wheel alignment.

#### 6.9 Tire chains

In winter, driving in harsh environments such as snowy or icy roads can increase the degree of tire wear or cause other failures. To reduce failures in winter, the following opinions must be followed:

- When driving in deep snow, it is necessary to install tire chains on the tires. If so, be sure to choose an equivalent product whose size and type meet the specifications of the tires on the vehicle. Failure to do this will adversely affect the performance and safety of the vehicle. Moreover, operations such as full-load driving, speeding, emergency acceleration, emergency braking, and emergency turning are potentially dangerous.
- During deceleration, make full use of the engine braking function. Emergency braking on snowy or icy roads will cause the vehicle to flick and slip. Maintain an appropriate safety distance from the vehicle in front, step on the brake pedal slightly, and pay attention to that installing tire chains on the tires can increase certain friction force, but cannot prevent side slipping.

#### **i** NOTE

Different countries or regions have different regulations for tire chains, and the regulations of each country or region should be consulted before assembling tire chains. Do not install tire chains without understanding the laws and regulations of the corresponding country and region that may restrict the use of tire chains.

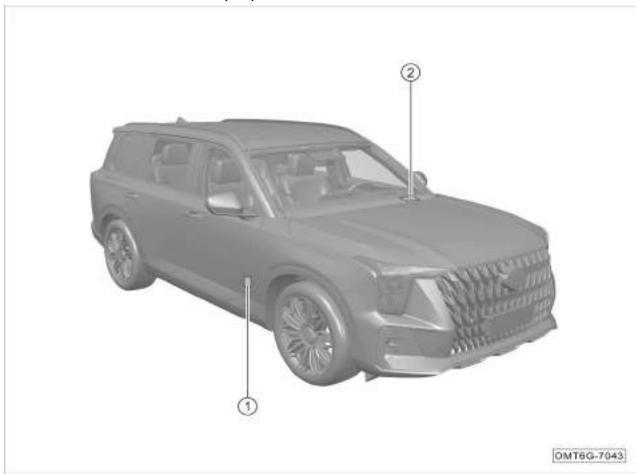
## **CAUTION**

Install tire chain on the tires to ensure balanced driving in all kinds of weather. It shall be borne in mind that after installation of tire chains, the vehicle may be underpower. Even if the road surface is in good condition, drive carefully. While driving, neither exceed the specified speed limit of tire chains nor exceed 50 km/h, whichever is lower.

## CAUTION

- If tire chains are installed on the tires, the size and type of the tire chains shall be consistent with the standard tires on the vehicle, otherwise, the safety and handling of the vehicle will be adversely affected.
- Tire chains must be installed in pairs on the front wheels rather than on the rear wheels.
- Do not install the tire chain on an emergency spare tire. If a spare tire is installed on the front tire and a tire chain is required, be sure to exchange the position of the spare tire with the rear tire.
- Do not use tire chains on dry ground. After driving to snow-free roads, remove tire chains.
- After installing the tire chains as closely as possible to the tires, drive 0.5 to 1.0 km, and then tighten the tire chains again.

## 7.1 Vehicle identification number (VIN)



The location of the VIN is as shown in the figure:

- ① Identification code (VIN code): Under the carpet in front passenger seat. (Engraving)
- ② Identification code (VIN code): Located on the left side of instrument panel.

## iNOTE

The location indication and quantity of VIN are not complete. Please refer to the actual vehicle.

## **OBD DLC**



The OBD interface ① for reading the electronic VIN is located on the lower left side of the instrument panel, and can be used with a diagnostic scan tool to read the electronic VIN and vehicle information.

## iNOTE

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

## Vehicle nameplate

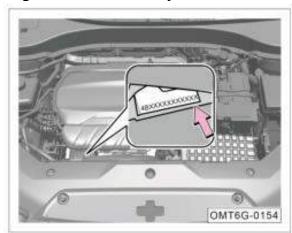
The vehicle nameplate is affixed to driver's side B pillar (left side of the vehicle) or driver's side B pillar (right side of the vehicle).

- Manufacturer's company name;
- VIN
- Maximum load mass\*
- Maximum combined mass\*
- Maximum front axle mass\*
- Maximum rear axle mass\*

#### **i** NOTE

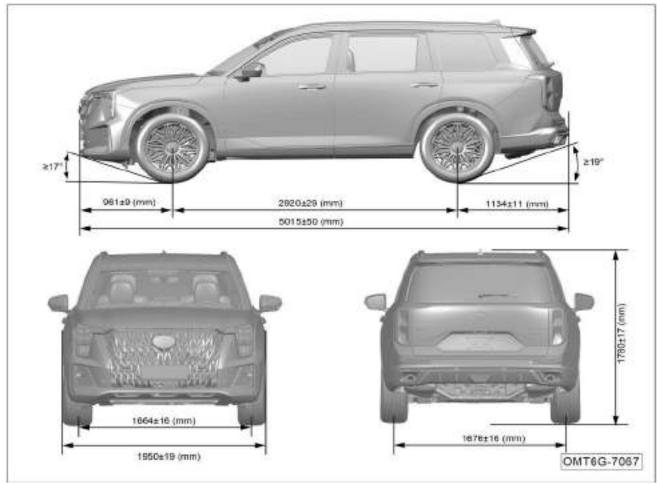
If there are any differences in the nameplate position and content, please refer to the actual vehicle.

## **Engine model and factory number**



Engine model and factory number as arrowed are indicated on the engine block (behind the generator).

## 7.2 Dimensions & parameters of vehicle

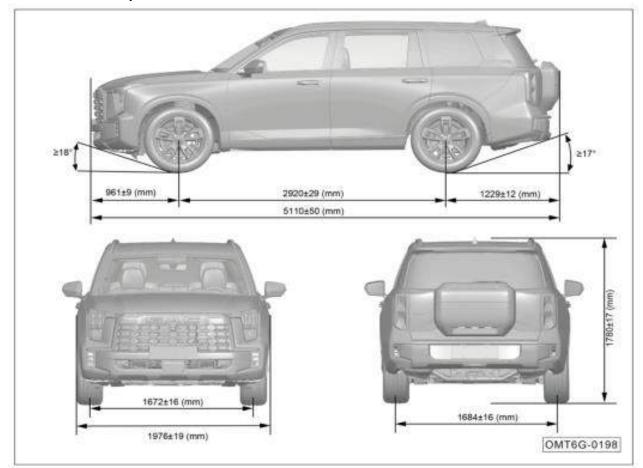


Dimensions (for Dragon Scale Wing exterior models)

Item		Param	eters
		Value	Unit
Ove	rall length	5015±50	mm
Ove	rall width	1950±19	mm
Ove	rall height	1780±17	mm
Wh	neelbase	2920±29	mm
Wheel	Front wheel	1664±16	mm
track	Rear wheel	1676±16	mm
Front	overhang	961±9	mm
Rear suspension		1134±11	mm
Approach angle (full load)		≥17	o
Departure angle (full load)		≥19	o

Note: Exterior rearview mirrors (one on the right and one on the left) near the junction of the lower end of the A pillar and the front door and the antenna above the rear of the roof are not included in the overall width.

## 7.2 Dimensions & parameters of vehicle



## **Dimensions (for Traveler exterior models)**

	•		
Item		Param	neters
		Value	Unit
Ove	rall length	5110±51	mm
Ove	rall width	1976±19	mm
Ove	rall height	1780±17	mm
Wheelbase		2920±29	mm
Wheel	Front wheel	1672±16	mm
track	Rear wheel	1684±16	mm
Fron	overhang	961±9	mm
Rear	suspension	1229±12	mm
Approach angle (full load)		≥18	0
Departure angle (full load)		≥17	o

Note: Exterior rearview mirrors (one on the right and one on the left) near the junction of the lower end of the A pillar and the front door and the antenna above the rear of the roof are not included in the overall width.

# 7.3 Vehicle mass & parameters of engine and fluids Mass

		Curb mass of vehicle (kg)		Gross vehicle mass (kg)			
Area	Area Model		Front axle load	Rear axle load	Maximum total mass	Front axle load	Rear axle load
	GAC6501JDA6A	1920±57	1050±31	870±26	2460	1159	1301
The Middle East	GAC6501JDA6B	2000±60	1076±32	924±27	2555	1192	1363
The Middle East	GACOOUTJDAOB	2030±61	1092±32	938±28	2555	1192	1363
	GAC6511JDA6D	2030±61	1092±32	938±28	2555	1192	1363
	GAC6501JDA6A	1881±56	1037±31	844±25	2460	1159	1301
America/Asia	GACOSOTIDAGA	1920±57	1050±31	870±26	2555	1192	1363
America/Asia	GAC6501JDA6B	2030±61	1092±32	938±28	2555	1192	1363
	GAC6511JDA6D	2030±61	1092±32	938±28	2555	1192	1363
Chile	GAC6501JDA6C	1881±56	1037±31	844±25	2460	1159	1301
GAC6501JDA6D	2030±61	1092±32	938±28	2555	1192	1363	

## Comprehensive parameters

	Corresponding vehic		
Item	GAC6501JDA6A GAC6501JDA6C	GAC6501JDA6B GAC6511JDA6D GAC6501JDA6D	Unit
Passenger capacity	7/6		Person
Minimum turning diameter	≤12.2		m
Maximum climbing ability	≥40		%
Maximum speed	≥210	≥200	km/h

Fuel consumption

Aroo	Model	Model	Fuel consu	Fuel consumption	
Area	Model	Fuel consumption	Unit		
	GAC6501JDA6A	15.0			
The Middle East	GAC6501JDA6B	13.9			
	GAC6511JDA6D	13.9	Luna /I		
America/Asia	GAC6501JDA6A	11.6	km/L		
	GAC6501JDA6B	10.3			
	GAC6511JDA6D	10.3			
Chile	GAC6501JDA6C	9.9	L/100km		
	GAC6501JDA6D	10.2	L/ TOOKIII		

## Parameters of engine

Model	4B20J2
Layout type	Horizontal front
Туре	Gasoline engine, spark-ignition, in-line, four-cylinder, four-stroke, water chilling, GDI, DOHC, exhaust turbocharging
Number of cylinders (pcs)	4
Ignition order	1-3-4-2
Bore (mm)	83
Travel (mm)	92
Displacement (mL)	1991
Compression ratio	(10±0.3):1
Rated power/rotation speed (kW/(r/min))	185/5250
Maximum net power/rotation speed (kW/(r/min))	170/5250
Maximum torque/rotation speed (N • m/(r/min))	400/1750~4000
Maximum net torque/rotation speed (N • m/(r/min))	380/1750~4000
Stable idling speed (r/min)	700±50
Emission level	Euro V/Euro VI

## Specifications and capacity of fuel/oil/fluid

Item	Specifications Capacity		city
Fuel 1)	Please refer to the fuel tank cap label for the fuel number.	Capacity: (L)	65
Engine coolant <sup>2)</sup>	DF-6, -35℃ coolant	Capacity: (L)	10.2±0.3
Engine oil	Oil grade: API SN	Total volume (L) 3)	5.3±0.1
Engine oil	Oil viscosity: SAE 5W-30	Replacement (L) 4)	4.5
8AT transmission	ATF AW-1	Capacity: (L)	6.6±0.1
Brake Fluid	DOT4	Capacity: (L)	0.82±0.05
Windshield glass washer fluid	FW011	Capacity: (L)	3
A/C refrigerant	HFC-134a	Capacity: (g)	880±20

## Note:

- 1) Long-term usage of fuel with sulfur content higher than standards may result in excessive emissions, so please be careful to use fuel that meets the local standards of the place where the vehicle is sold.
- 2) Including the coolant in the reservoir and the residual coolant in the engine.
- 3) Capacity of overhauled engine.
- 4) Replace the oil filter.

# 7.4 Specifications of transmission, chassis and lamps Transmission parameters

Model	TG-81SC
Type	AT, eight-speed
Drive mode	Two-wheel drive / four-wheel drive
Final drive ratio	3.329
1st gear	5.250
2nd gear	3.029
3rd gear	1.950
4th gear	1.457
5th gear	1.221
6th gear	1.000
7th gear	0.809
8th gear	0.673
Reverse gear	4.015
	·

Suspension

	Front suspension	Rear suspension
Type	MacPherson	
1 7 7 0	independent	Multi-link independent suspension
	suspension	

## Wheel

Specifications of rim	8J×19* 、8J×20*	
Tire specification	255/55R19*、255/50R20*	
Tiro progues	Front wheel	Rear wheel
Tire pressure	240kPa	240kPa
Specifications of spare tire	T155/85R18	
Pressure of spare tire	420kPa	

Note: The label of standard pressure data of original tires of the vehicle is pasted on the B pillar at the driver's side.

## Steering gear

Type	Rack and pinion electric power steering gear
Power steering type	Electric power steering

## **Brake**

Туре	X-type dual circuit, hydraulic brake, vacuum assist	
Front wheel	Disc brake	
Rear wheel	Disc brake	
Parking brake	Electronic parking brake (EPB)	

## Dynamic balance of wheels

Name		Residue dynamic unbalance
Front wheel	Inner side	≤8g
	Outer side	≤8g
Rear wheel	Inner side	≤8g
	Outer side	≤8g

## Free travel of brake pedal

Name	Parameters
Travel	108mm
Free travel	≤8mm

## **Technical parameters of brake linings**

Name	Parameters
Wear limit of front wheel brake lining (excluding the backplate of brake lining)	2mm
Wear limit of rear wheel brake lining (excluding the backplate of brake lining)	2mm

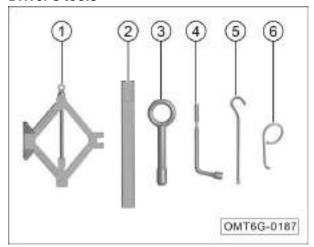
## Wheel alignment parameters

Name		Parameters
Front wheel	Individual toe-in	5'±3'
	Wheel camber	-22'±30'
	Kingpin caster angle	6°34′±45′
	Kingpin inclination angle	13°41′±45′
Rear wheel	Individual toe-in	5'±3'
	Wheel camber	-1°2′±30′

## Lamps

The vehicle lamps are all LED lights. If the LED lights are damaged, it is recommended to go to GAC Motor authorized shop for replacement in time.

# 8.1 Driver's tools and spare tire Driver's tools



The following driver's tools provided by the vehicle shall be placed in the trunk. After use, they shall be cleaned in time and put back to the original position.

- ① Jack
- ② Warning triangle
- ③ Towing hook
- 4 Wheel bolt removal wrench
- (5) Special wrench for jack

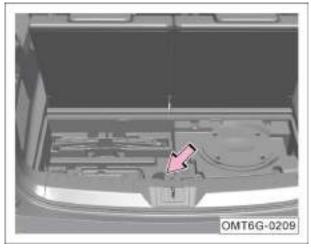
⑤ Floating trim cover disassemble tool\*
First aid kit\*



This vehicle first aid kit contains:

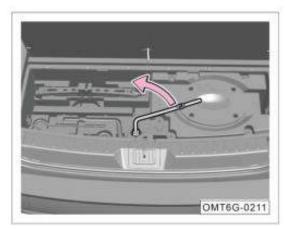
- ① Medical kit: The medical kit contains emergency trauma treatment items such as hemostasis and bandaging (such as medical gauze packs, medical tape, medical breathable bandages, triangular bandages, iodine cotton swabs, dressing tweezers, safety scissors, etc.); used for emergency trauma treatment.
- ② Portable dry powder fire extinguisher: used for emergency fire extinguishing when a vehicle catches fire.

## Spare tire



Remove the spare tire:

- Open liftgate.
- 2. Remove trunk.
- B. Pry off the decorative cover.



- 4. Take out wheel bolt removal wrench.
- Secure the wheel bolt removal wrench onto the bolt.
- Turn Wheel bolt removal wrench counterclockwise until it cannot be turned. At this time, spare tire has been completely lowered to the ground.



- 7. Lift the spare tire and tilt it to loosen the lower mounting bracket of the spare tire.
- 8. Remove spare tire.
- 9. Install the new one in reverse steps.

## **i** NOTE

The spare tire has been inflated, and its tire pressure shall be checked regularly to ensure that it is at the specified maximum pressure, and multiple inspections shall be carried out within 1 year.

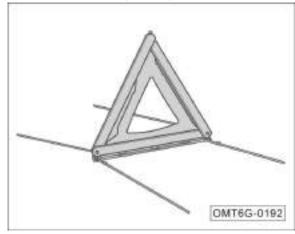
## **∆**WARNING

- It is strictly forbidden to hang full-size tire under the vehicle. They should be stored and secured inside the vehicle.
- A full-tire hanging under the vehicle will come into contact with the exhaust heat shield, failing to effectively secure tire and causing irreversible damage tire.

# **⚠** WARNING

- Use the spare tire in strict accordance with the use requirements to avoid danger.
- It is strictly forbidden to install and use more than one spare tires at the same time.
- Do not use spare tire that has been damaged or worn to the limit.
- The storage and service life of spare tires is 6 years. It is prohibited to use them beyond the time limit.
- The tire pressure shall be checked as soon as possible after the spare tire is installed to make it within the specified range.
- The maximum speed of spare tires must not exceed 80 km/h, and sharp acceleration and emergency braking shall be avoided.

# 8.2 Use of warning triangle



- 1. Open liftgate.
- 2. Lift the trunk floor.
- 3. Take out the warning triangle and unfold it for use.

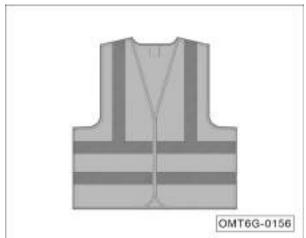
#### Placement distance

Ordinary highway		Highway
Day	Night	Highway
≥50m	≥80m	≥150m

# **CAUTION**

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 vehicle needs to stop due to an accident or other faults, take out the reflective vest from the glove box and wear it neatly before getting off to check and deal with the vehicle faults.

# **i** NOTE

- While handling vehicle accidents, be sure to wear a reflective vest as required to attract the attention of passersby or other drivers regardless of the lighting conditions.
- After using the reflective vest, please store it in the glove box properly. If necessary, clean it according to the indication on the collar mark to maintain the reflective performance.

# 8.4 Replacing flat tires Preparations

- 1. Apply parking brake.
- 2. Set the gearshift lever to the "P" position.
- 3. Switch the vehicle power to the "OFF" gear and turn on hazard warning lamp.
- 4. Place a warning triangle in a suitable position behind the vehicle.
- Find a suitable object to wedge the wheel diagonally opposite to the wheel to be replaced to prevent the vehicle from moving.
- 6. Take out the driver's tools and spare tire.

#### **∆**WARNING

- Relevant regulations must be strictly followed.
- All passengers must leave the vehicle and wait in a safe place.

# **Unscrewing the wheel bolts**



1. For models with floating wheel markers, disassemble the covers of the floating wheel markers before disassembling wheels. Use a floating wheel maker disassemble tool to pry open the cover from the small hole.

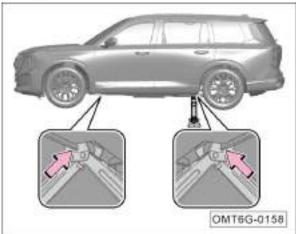


 Set the wheel bolt removal wrench firmly on the wheel bolt, and unscrew the wheel bolts counterclockwise.

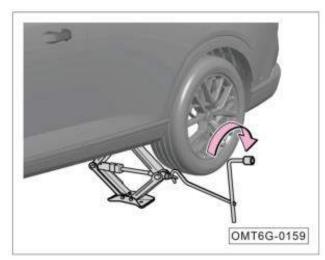
# CAUTION

Loosen the wheel bolts just one turn before lifting the vehicle. After lifting the vehicle, unscrew the wheel bolts completely and remove the fat tire.

# Lifting the vehicle



- 1. Place the jack directly under the spine closest to the flat tire.
- Extend the jack high to ensure that the groove of the jack can engage with the spine.
- 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 and lift the vehicle to make the tire leave the ground.

#### **∆**WARNING

Improper use of jack will cause serious injury.

- The jack must be used on a hard and flat ground, and a hard pad (height not more than 1 cm) can also be placed under the jack as needed.
- Strictly observe the precautions for jack operation.
- If there is a towing trailer, the trailer must be separated from the vehicle.
- Observe the status of the vehicle continuously during the lifting. If the vehicle body is noticeably tilted, stop the lifting, identify the problem, and then lift the vehicle after solving the problem.

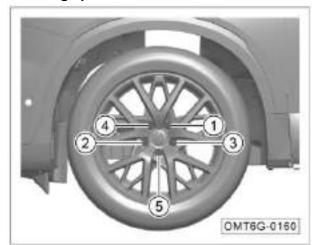
#### **∆**WARNING

- The jack on the vehicle can only be used to lift the vehicle rather than other heavy objects or vehicles.
- When the jack is used, do not start the vehicle, otherwise an accident will occur.
- When lifting the vehicle with a jack, remember not to place any part of the body under the vehicle to avoid accidents.
- If it is required to work under the vehicle, be sure to place a suitable protective support under the vehicle.

#### Disassemble a flat tire

- 1. With the vehicle lifted, use wheel bolt removal wrench the loosened wheel bolt.
- 2. Disassemble the flat tire.

#### Installing 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 warning, and after confirming that nobody is around the car, rotate the jack wrench counterclockwise to lower the vehicle.
- 4. Tighten all wheel bolts using the wheel bolt removal wrench.

 In order to avoid the noise of the vehicle during driving later on, please remember the locations of various tools, put them back in place after use and fix them.

#### CAUTION

After installing the wheel, please go to the GAC Motor authorized shop in time to check the tightening torque of the wheel bolts (125±1 5N•m). Otherwise, the bolts may be loose while the vehicle is running, easily causing traffic accidents.

# **⚠** WARNING

- The wheel bolt must be kept clean and easy to turn, without any attachments such as grease.
- For replacement of a tire, if the bolts are rusted or difficult to be tightened, they must be replaced and the thread hole cleaned.
- When the spare tire is not in use, it must be reliably fixed at the spare tire mounting position.

#### 8.5 Microwave window



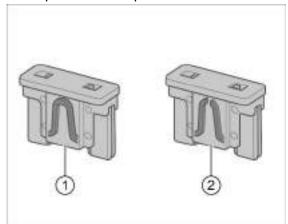
 The microwave window is set to the right of the front windshield corresponding to the interior rearview mirror in the vehicle.

#### **i**NOTE

The microwave window is available for installation of ETC debit electronic cards.

#### 8.6 Inspect fuse

If any electrical device is not working, it may be due to a blown fuse. If this occurs, please promptly contact a GAC Motor authorized shop for inspection and repair.



- ① Normal fuse
- ② Blown fuse

#### CAUTION

If you need to replace a fuse, please go to a GAC Motor authorized shop.

#### **AWARNING**

- Please do not modify or add equipment to the vehicle without authorization to avoid damage to electrical devices or serious incidents such as fire.
- Do not use fuses rated above the specified current value, otherwise it will damage other components of the electrical system.
- Using unsuitable or patched fuse can cause short circuit or even fire.
- The color and logo of the replaced fuse must be exactly the same as the original one.
- Do not replace fuse with metal sheets, paper clips, etc.
- The electrical box must be kept clean inside. Pay attention to protection against moisture.

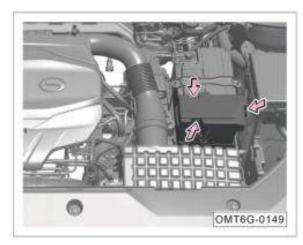
# 8.7 Emergency start

Jumper cable

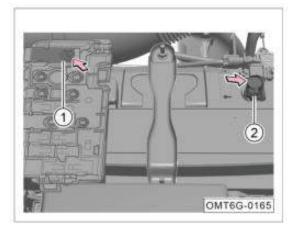
If the engine cannot be started due to low battery, the engine can be started by connecting the battery of another vehicle using jumper cables.

#### **⚠** WARNING

- The engine compartment s a high-risk area, and improper operation can easily lead to casualties.
- Be sure to carefully read and follow the safety warning instructions before starting the battery operation.



- 1. Turn off electrical device (such as air conditioning, audio equipment, etc.).
- Open the front engine compartment cover, remove the rear upper guard panel\* of the engine compartment, press the fixing buckle in the direction of the arrow to remove the fuse box cover above the battery.



- 3. Connect jumper cable to Battery of your vehicle ①, and the other end of clip to Battery of another vehicle; connect jumper cable's clip to the negative battery terminal of your vehicle ②, and the other end Battery to engine of another vehicle or a metal part firmly connected engine.
- 4. Start the vehicle with a power supply battery and let it run at idle speed. Then, start the engine of the vehicle with a depleted battery until the engine is running smoothly.
- 5. Once the engine is running smoothly, remove the jumper cables in reverse order.

#### CAUTION

- When connecting the battery, always connect the positive terminal first, followed by the negative terminal.
- Properly place the jumper cable to avoid contact between the cable and the moving components of the engine.

# **⚠** WARNING

- Ensure that the headlamps are off before removing the jumper cable.
- Turn on the blower and rear windshield heater of the vehicle with the depleted battery to reduce the voltage peak generated when the cable is being removed.
- Remove the jumper cables with the engine running in the reverse order.

#### **MWARNING**

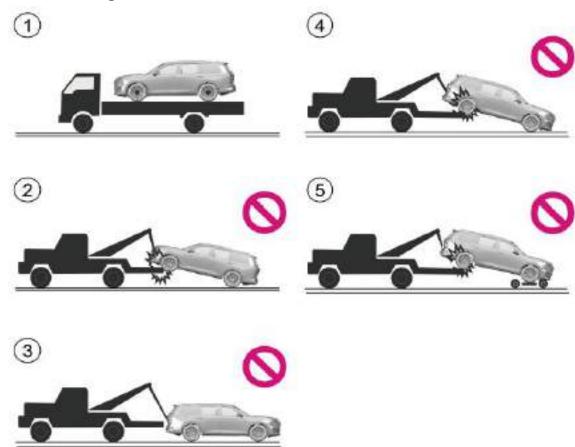
Improper use of jumper cable may cause battery explosion and serious injury to personnel.

- The voltage of the power supply battery must be the same as that of the depleted battery, and the capacity of the two batteries must be the same as much as possible. Otherwise, it may cause an explosion.
- Do not expose the battery to open fire, and beware of explosion.
- Do not connect the negative cable directly to the negative terminal of the battery without power. There shall be no static electricity near the battery. Otherwise, the combustible gas produced by the battery may be ignited by sparks, causing an explosion accident.
- Do not connect the negative cable to the fuel system component or brake pipeline, and do not bend over to the battery during operation to avoid being burned by acid.

#### **⚠** WARNING

The jumper cable should be correctly connected to the battery's positive and negative terminals according to the above instructions. It should not be connected to other parts of the battery. Otherwise, it may cause fuse ablation or partial function failure of the vehicle, which will not be covered by the warranty.

# 8.8 Vehicle towing



When the vehicle malfunctions or an accident prevents normal starting, use the towing method shown in Figure ① for platform trucks to remove the vehicle from the scene.

# CAUTION

- If the vehicle needs to be towed, it shall be towed by the GAC Motor authorized shop or a professional towing company.
- If a platform cargo vehicle cannot be used normally for towing the vehicle, a rigid connection can be used to urgently tow the vehicle to a safe area and wait for rescue.
- When rigid towing is used, long towing distances should be avoided and the speed of the tow truck should not exceed 5km/h.
- Tow away from the scene only after ensuring that the vehicle is not a safety risk.

# **Emergency towing**

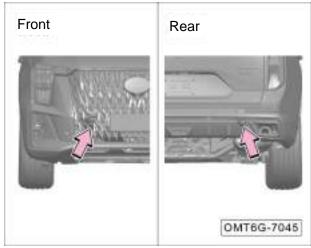
If it is impossible to find a tow truck in an emergency, fasten the towing cable or towing chain in the emergency towing ring to temporarily tow the vehicle. However, this method is only suitable for low speed and short distance towing on a solid and flat road.

# **⚠ WARNING**

In emergency towing, drive slowly to avoid violent operation. Excessive towing force will damage the vehicle.

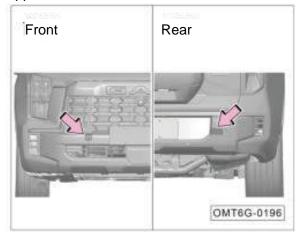
# Installing a towing hook

Applicable to models with dragon scale wing appearance



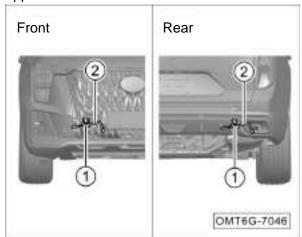
 Pry off the towing hook cover in the arrowed position using a slotted screwdriver wrapped with a cloth.

# Applicable to Traveler Exterior Models



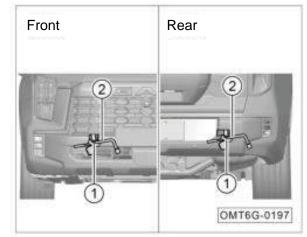
Pry off the towing hook cover in the arrowed position using a slotted screwdriver wrapped with a cloth.

Applicable to models with dragon scale wing appearance



- Take out the towing hook ① and wheel bolt removal wrench ② from the driver's tool kit in the trunk.
- Screw the towing hook ① clockwise into the thread hole.
- Insert the wheel bolt removal wrench ② into the round opening of the towing hook, and turn the wheel bolt removal wrench clockwise to make the towing hook be firmly screwed into the thread hole.

# Applicable to Traveler Exterior Models



- Take out the towing hook ① and wheel bolt removal wrench ② from the driver's tool kit in the trunk.
- Screw the towing hook ① clockwise into the thread hole.
- Insert the wheel bolt removal wrench ② into the round opening of the towing hook, and turn the wheel bolt removal wrench clockwise to make the towing hook be firmly screwed into the thread hole.

# **Precautions for towing**

Before emergency towing, be sure to follow the instructions below:

- Hazard warning lamps of both towing and towed vehicles must be turned on, and local traffic regulations must be complied with.
- The towing hook must be firmly tightened in the thread hole. Otherwise, the towing hook may slip out of the thread hole during towing.
- The vehicle being towed must have gear in the "N" gear.
- The towed vehicle needs to start the vehicle and turn the steering wheel back and forth to confirm that it can rotate.

During emergency towing, always follow the following

list item operations:

- Start the engine and drive at a slow speed till the towing rope is tight and then perform acceleration slowly.
- Be sure to drive steadily, and do not accelerate, decelerate, or turn the vehicle sharply.
- For towing, the towed vehicle shall be braked earlier than normal conditions, with the brake pedal lightly depressed.
- During towing, the towing rope must always be in a tight state.

# 8.9 Towing a trailer

It is not recommended to use this vehicle to tow a trailer. Also do not install a towing device or use it as a towing device carrier to tow a wheelchair, scooter, bicycle, etc. Your GAC Motor is not designed to tow a trailer or serve as a mounting carrier for a towing device.



#### 8.10 Getting out of a trap

If the vehicle is stuck on a soft road such as sandy, muddy or snowy road, follow the steps below to get out of a trap:

- Observe the areas in front of and behind the vehicle to ensure that there are no obstacles.
- Turn the steering wheel to the left and to the right to grind areas around the front wheels to remove mud, snow or sand trapped around the tires.
- 3. Place wooden blocks, stones or other materials to help increase tire friction.
- 4. Start the engine and accelerate the vehicle slowly to get the vehicle out of the trap.
- 5. If the vehicle still cannot get out of the trap after several 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 vehicle from the front and rear for driving the vehicle out of the trap.

This manual describes the configurations, features, performance parameters, and product figures for the entire range of this vehicle model. The actual configurations and features of the vehicle are subject to the specific delivered vehicle. The exterior/interior trim figures in this manual are for reference only, and in case of any discrepancies between the product figures and the actual delivered vehicle, the actual vehicle delivery shall prevail.

The company reserves the right to release updated versions that adjust and optimize certain functions, with specific details subject to the version announcement. The company reserves the right to change, supplement, or discontinue the content and technical specifications in this manual.

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GAC Motor Co., Ltd.



# GAC MOTOR CO., LTD.

Address: No. 60 Donglong Road, Panyu District, Guangzhou,

P.R. China

Postal code: 511434

Customer service hotline: 400-158-9999

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