

Dear user:

Thank you for selecting Windrose vehicle!

You should read this owner's manual carefully before driving for the first time to familiarize yourself with the structure and features of Windrose vehicle as soon as possible, know the correct manners to use, maintain and repair the vehicle, and get the best driving experience.

Considering varieties of vehicle configurations, the actual configuration or name of the vehicle you purchased may not be exactly the same as those illustrated or described in this owner's manual. Windrose reserves the right to change the shape, configuration and technical performance of the vehicle at any time. We reject any claim raised based on the data, illustrations or textual descriptions as given in this manual. We will keep modifying and perfecting the contents of this owner's manual according to vehicle updates.

Have a wonderful trip!

No part of this Owner's Manual may be reproduced or duplicated without the written consent of Windrose.

Note: The cover and pictures of this manual are for reference only, and the details shall be subject to the actual vehicle.

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## Notes to Users

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Before You Drive

The vehicle introduced here is a kind of new energy electric tractor. During daily driving and maintenance, follow relevant warnings and instructions specified in the **Owner's Manual** (hereinafter referred to as "this manual") to avoid vehicle damage or personal injury.

Before using the vehicle for the first time, read this manual carefully so as to get a preliminary understanding of your vehicle. If you find any problems during use, call the Windrose service hotline.

The copyright of this manual is owned by Windrose. No part or all of this manual may be reproduced or duplicated without the prior written consent of Windrose.

We reserve the right to modify the contents of the manual without notice. Please update and read the electronic owner's manual in the center display or the Windrose mobile APP to learn about the latest vehicle information.

Windrose web site: <http://windrose.tech/>

Windrose service hotline: +1 (586) 604 5918

You can search for "Windrose" in the official mobile store to find and download the app in the mobile phone.

### Note

The abbreviated name that first appears in the manual will be reflected in the form of "full name (abbreviation)". If this abbreviated name appears again in the manual, it will be directly reflected in the form of the abbreviated name.

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## Warning Description

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Before You Drive

### Warning

#### Warning

Warning signs remind you that the hazard may cause personal injury or danger to your life or others.

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## Attention

### Notice

Notice signs remind you of dangerous actions that may cause damage to the vehicle.

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## Note

### Note

Note signs remind you that you can find some help tips or useful details here.

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## Environmental protection

### Environmental protection

The environmental label reminds you that the content stated here is related to environmental protection.

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## Asterisk

An asterisk "\*" appearing after the title or name indicates that the configuration or function described is only applicable to some models and may not be equipped in this vehicle.

## Illustration information



This arrow indicates the exact location of the object as shown in the picture.



This arrow indicates the movement direction of the object as shown in the picture.



This arrow indicates the rotation direction of the object as shown in the picture.



This arrow indicates the flipping direction of the object as shown in the picture.

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## Environmental Protection

Before You Drive

Windrose is committed to contributing to global sustainable development and environmental protection by advocating use of vehicle that is beneficial to efficiency and energy consumption reduction. You can also contribute to environmental protection if you drive the vehicle in a way that does no harm to environment.

# Operation Safety and Permit

Before You Drive

The maximum allowable total mass of the goods transported should be strictly observed. And do not overload, as overloading can lead to vehicle breakdown or damage, and may even cause personal injury.

Before driving, be sure to adjust the seat in place, otherwise the vehicle may lose control due to driving fatigue or unexpected seat movement. The adjusted seat position should not interfere with the proper wearing of seat belts.

Seat belts are the best protection device in all types of collisions. Seat belts can effectively protect drivers and passengers as to avoid and reduce injuries to drivers and passengers on the vehicle. Therefore, it is important to ensure that you and other passengers on the vehicle are wearing seat belts correctly at all times during driving.

Do not excessively fold down the seat backrest during driving. Otherwise, when applying the emergency brake, the seat belt cannot protect the driver, resulting in accidents.

The seat belt should be replaced immediately even it is not damaged in collisions where impact force is exerted on the seat belt.

## Warning

It is strictly forbidden to coast downhill in neutral gear.

## Warning

The maximum driving speed shall not exceed 30km/h in any one of the following situations:

- When entering and exiting non-motorized lanes, or passing through railway crossings, sharp curves, narrow roads, and narrow bridges.
- When making a U-turn, turning, or going down a steep slope.
- When encountering fog, rain, snow, dust, or hail with a visibility of less than 164 feet.
- When driving on icy/snowy or muddy roads.
- When towing a malfunctioning motor vehicle.

### Notice

When driving near local radio astronomy observatory, you should keep at a safe distance, as radar-equipped vehicles may cause electromagnetic interference to radio astronomy observatories.

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## Original Parts

Before You Drive

Windrose will not be liable for the warranty of relevant parts in any one of the following situations during the warranty period:

- Unauthorized modification of vehicles, especially systems related to driving safety, such as high-voltage systems, electrical appliances, braking, steering, and TBOX.
- Tampering with the vehicle's OBD system.
- Use of regular parts and fluids not designated by Windrose which causes potential safety hazards or vehicle damages after testing.
- Users cannot provide materials that can prove the continuous use of compliant fluids within the warranty period, or the materials provided by users are false and invalid, or the

materials provided are obviously inconsistent with the driving mileage and time of use.

- Failure to have the vehicle maintained and serviced in a Windrose authorized service station in accordance with the regulations.

## Data Security

Before You Drive

In accordance with laws, administrative regulations and other provisions, the vehicle data such as tracks, driving behaviors, audio, and video as well as personal information collected will be protected by Windrose which takes measures in compliance with legal requirements and national or industrial technical standards.

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## Vehicle Modification

Before You Drive

### Materials required prior to modification

The modification of vehicle should meet the technical requirements of vehicle modification, and necessary instructions and technical materials should be delivered to Windrose.

At a minimum, the following should be included in the technical materials provided:

- The purpose and working condition of the modified vehicle.
- The total weight and axle load of the modified vehicle.
- The outline dimensions (including working condition) of the modified vehicle.
- The height of the bodywork bottom plate on the wheel of the modified vehicle.
- The fixing mode of the bodywork of the modified vehicle.
- The schematic diagram of the subframe of the modified vehicle.

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## Vehicle Scrapping

Before You Drive

Vehicles that no longer meet the conditions for driving on roads should be scrapped in accordance with the requirements of national environmental protection regulations.

Before vehicle scrapping, please contact a Windrose authorized service station to consult the related matters.

### Warning

The vehicle scrapping must be performed by Windrose or the relevant certification authorities. If the vehicle is not scrapped in the correct way, it may lead to accidents such as fire.

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### Recycle of high voltage battery

Windrose will test the capacity and condition of the high voltage battery, and recycle the high voltage battery according to applicable laws, regulations and market conditions at that time.

Recycling of high voltage battery: Recycling and follow-up processing should be done by Windrose or a third-party recycling organization designated by Windrose.

Transportation of high voltage battery: High voltage batteries are transported by a professional transportation agency. Please contact the Windrose authorized service station to notify a professional recycling agency for processing.

#### Warning

- Do not dispose of or discard the used high voltage batteries to avoid accidental fire or serious pollution to the environment.
- Do not hand over waste high voltage batteries to other units or individuals. You will be held responsible for any environmental pollution or safety accidents caused by disassembling of high voltage batteries without permission.

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## Eco Driving

Before You Drive

The driving economy of the vehicle can be improved in the following ways:

- Drive the vehicle at a constant speed and avoid sudden acceleration and braking as much as possible.

- Regularly maintain the vehicle to keep the vehicle in good working condition.
- Never coast in neutral gear, as this will result in poor lubrication of the E-axle and damage to system components.

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## Winter Driving

Before You Drive

### Preparation for winter driving

- Use high-quality coolant based on the lowest temperature, and the freezing point of the coolant should be lower than local minimum temperature.
- Ensure that the battery is fully charged at all times to prevent the battery from freezing under low temperatures.

### Use of vehicle coolant in winter

In the cold season or when the vehicle is parked in a cold place, the antifreeze properties of the coolant should be ensured. Please use the coolant recommended by Windrose.

### Precautions for winter driving

- It is recommended to use snow chains or snow tires.

- Avoid sudden acceleration, sudden braking, and sharp turns at high speeds.
- When driving on roads covered with snow and ice, keep driving at a low speed to ensure better service braking.
- Maintain a reasonable distance between vehicles (increase the distance between vehicles as driving in rainy and snowy day or icy roads may increase the service brake distance).

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## Use of Snow Chains

Before You Drive

When using snow chains, pay attention to the following:

- It is recommended to use snow chains when driving on roads covered with thick layers of snow or ice.
- The specification of snow chains should match the specification and model of tires.
- The snow chains should be positioned on the left and right outer tires of the driving wheels.
- Do not damage the tires during the removal and refitting of snow chains.

- After installing the snow chains, start the vehicle and observe whether the chains are loose or whether the tires are not properly mounted.

### Warning

When using snow chains, it is forbidden to exceed the maximum effective driving speed to avoid accidents.

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### Notice

- When driving on long roads without snow and ice, remove the snow chains.
  - The snow chains should not interfere with other parts of the vehicle while driving.
  - The removal and refitting of snow chains should be carried out after parking on level roads.
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## Driving in Tropical and High Temperature Areas

Before You Drive

Please check the condition of the vehicle before driving:

- Check whether the coolant level is within the normal range and check for leakage.
- Do not leave flammable and explosive materials (lighters, perfumes, etc.) on the instrument panel for a long time, and avoid exposure to direct sunlight as this may cause explosions under high temperatures and lead to fires.

Please pay attention to the following during driving:

- Do not drive in fatigued state, and take a rest in a reasonable manner. When driving on asphalt roads which have softened, the wheels are easy to slip. Thus, control the vehicle speed reasonably and the depress the brake pedal slightly on such roads.
- Keep an eye on the indicators and warning lamps in the instrument cluster, and if the vehicle-related MILs or warning lamps become illuminated, stop driving immediately and contact a Windrose authorized service station.

- Notice the tire pressure and tire temperature. If the tire pressure or tire temperature is abnormal, immediately stop driving and let the tires cool down naturally. Do not depressurize and cool down the tires by means of water spraying or deflation, as this will easily accelerate tire aging and wear, and may result in tire bursts in severe cases.
- If tire bursts happen during driving, immediately press the hazard warning switch, hold the steering wheel with your hands at the 9 & 3 o'clock position without turning, and depress the brake pedal intermittently for many times to warn pedestrians.

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## Driving on Bumpy and Slippery Roads

Before You Drive

Pay attention to the following when driving on bumpy and slippery roads:

- When driving on bumpy roads, keep at low speeds to avoid high-speed driving from causing discomfort among drivers

and passengers and accelerating the wear in shock-isolating system components.

- When driving on slippery roads, keep at low speeds and apply brakes carefully to avoid vehicle sideslip.
- When vehicle sideslip happens on wet and slippery roads, apply service brake to slow down the vehicle.

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## Ramp Driving

Before You Drive

### Precautions for uphill driving

- If the vehicle slips when starting on a ramp, immediately depress the brake pedal, turn on the electronic parking brake, and then start the vehicle.
- When driving uphill, keep at low speeds, maintain stable, increase the depressing force applied on the accelerator pedal, go uphill at an even speed, and do not accelerate or brake suddenly.

### Precautions for downhill driving

- Before driving downhill, reduce the vehicle speed so that the vehicle can go into the downhill grade at a low speed.
- It is strictly forbidden to coast in neutral gear when going downhill. Otherwise, it will endanger your life.
- Before going downhill, check whether the braking performance is good, and if there is a fault, eliminate the fault before going downhill.
- Do not rotate the steering wheel sharply on downhill roads, as it is easy to cause rollover accidents.
- In case the downhill driving will take long, do not depress the brake pedal frequently, as depressing the brake pedal continuously for a long time may cause the brake to overheat and brake failure.

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## Reporting Safety Defects

Before You Drive

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Vehicles domiciled in the USA thought to have a defect that could cause a crash, injury, or death, should immediately be reported to the National Highway Traffic Safety Administration (NHTSA) and Windrose.

If the NHTSA receives similar complaints, it may open an investigation; if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or Windrose.

To contact NHTSA, call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (TTY: 1-800-424-9153).

To e-mail NHTSA, go to [www.safertruck.gov/](http://www.safertruck.gov/).

You can contact NHTSA by mail at: Administrator, NHTSA Headquarters, 1200 New Jersey Avenue SE, West Building, Washington, DC 20590.

Windrose service contact company: Windrose Technology Inc

Windrose service address: 415 S Murphy, Sunnyvale, CA, 94086

Windrose service website: <https://windrose.tech/>

# Overview of Vehicle Exterior

Vehicle Identification



1. Active grille shutter (AGS)
2. Front turn signal lamp/  
daytime running lamp
3. Parking lamp
4. Windshield wiper
5. Rearview mirror
6. Panoramic sunroof
7. Front outline marker lamp
8. Side toolbox
9. Charging port
10. Side marker combination  
lamp



11. Electric sliding door

12. Identification lamp/charging indicator

13. Side marker combination lamp

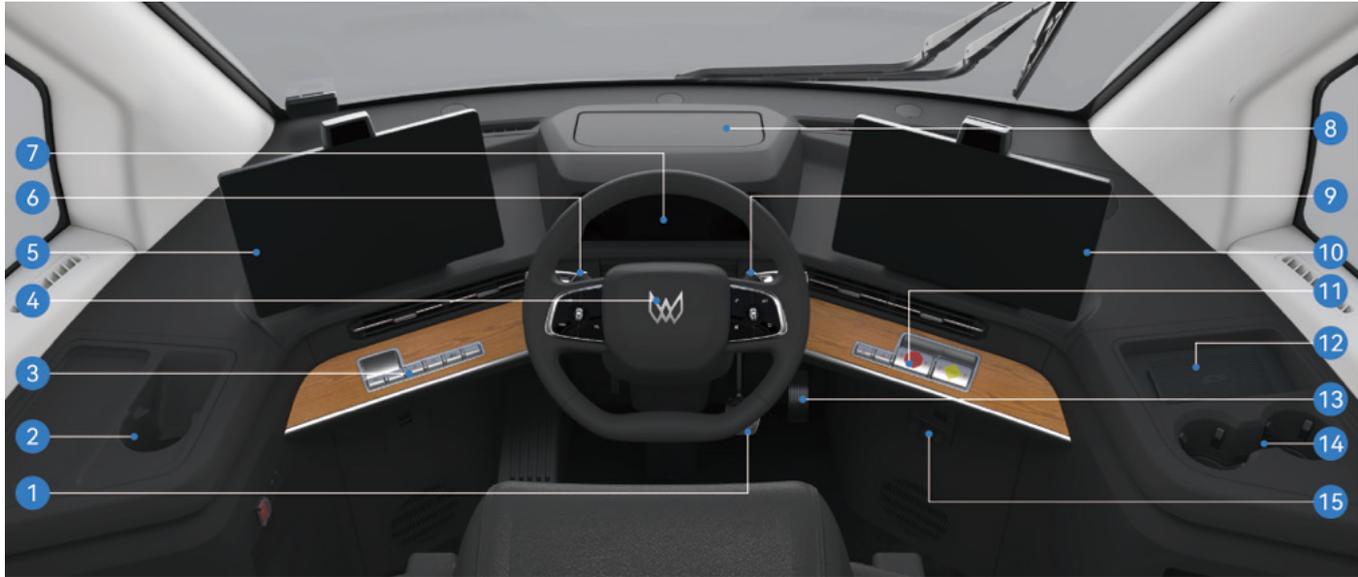
14. Low beam

15. High beam



# Overview of Vehicle Interior

Vehicle Identification



1. Brake pedal

2. Cup holders (left)

5. In-vehicle infotainment screen

6. Kinetic energy recovery paddle (left)

9. Kinetic energy recovery paddle (right)

10. Car control screen

13. Accelerator pedal

14. Cup holders (right)

- 3. Instrument panel left combination button
- 4. Steering wheel

- 7. Instrument cluster
- 8. Instrument panel storage box/AR-HUD\*

- 11. Instrument panel right combination button
- 12. Phone wireless charging area

- 15. In-vehicle fragrance



# Vehicle Environmental Sign, Nameplate and VIN

Vehicle Identification

## Vehicle nameplate



- The nameplate is located on the right sliding door frame (C-pillar) of the vehicle.
- The nameplate bears the full name of the manufacturer, the date of manufacture, the vehicle identification number (VIN), the maximum allowable total mass of the fully loaded vehicle,

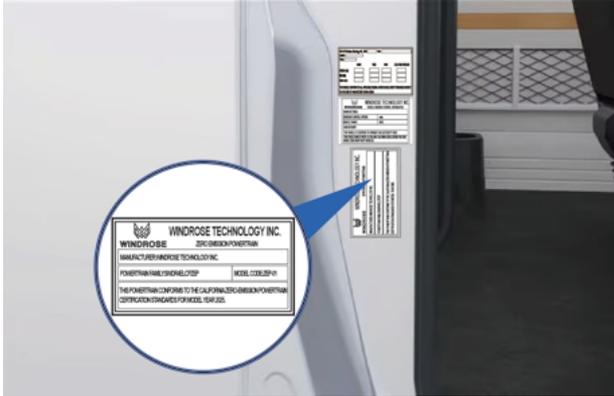
the vehicle type, the axle load, the tire model, the rim size, the tire pressure, and the statement.

## Vehicle emission control information (VECI) label



- The vehicle emission control information (VECI) label is affixed to the right sliding door frame (C-pillar) of the vehicle.
- The vehicle emission control information (VECI) label contains the title, full name of the manufacturer, trademark, date of manufacture, emission control system, maximum allowable gross weight of the fully loaded vehicle, vehicle family name, vehicle category and statement.

## Zero-emission power label



- The zero-emission power label is located on the right sliding door frame (C-pillar) of the vehicle.
- The zero-emission power label includes the title, name of manufacturer, trademark, date of manufacture, powertrain family name, model code and statement.

## Vehicle noise emission control information



The vehicle noise emission control information is located on the right sliding door frame of the vehicle.

## Customer assistance label



The Customer assistance label is located on the right sliding door frame of the vehicle.

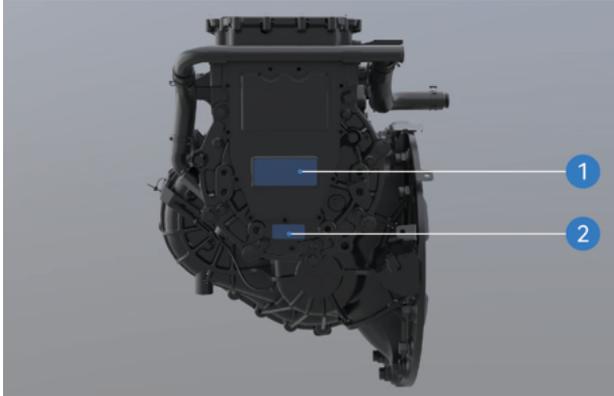
## Vehicle identification number



- The vehicle identification number (VIN) is engraved near the centerline of the front axle at the outer side of the frame right side member.

## Location of Motor Nameplate and Code

Vehicle Identification



1. Location of motor nameplate
2. Location of motor SN

### Notice

- The motor rubbing code is attached with the motor manual when the vehicle leaves the factory. Please keep it properly.

- As motors from different manufacturers vary from each other, their relevant information is also different. Please refer to the actual product.

## Microwave Window on Vehicle

Vehicle Identification

On the whole, the windshield on this vehicle conforms to all attributes and definitions required for a microwave window. Therefore, no specific location on this vehicle is defined as a microwave window.



# Electric Sliding Door

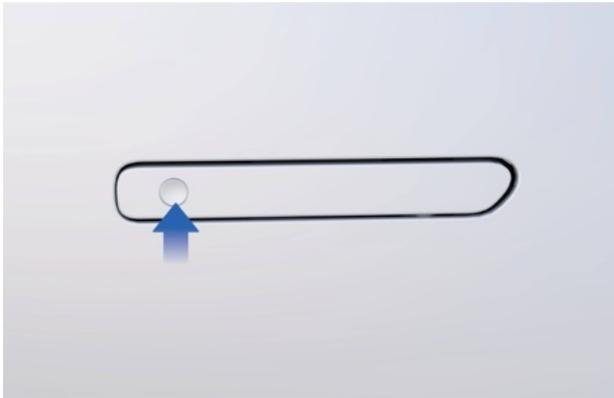
Access to Vehicle

## Function introduction

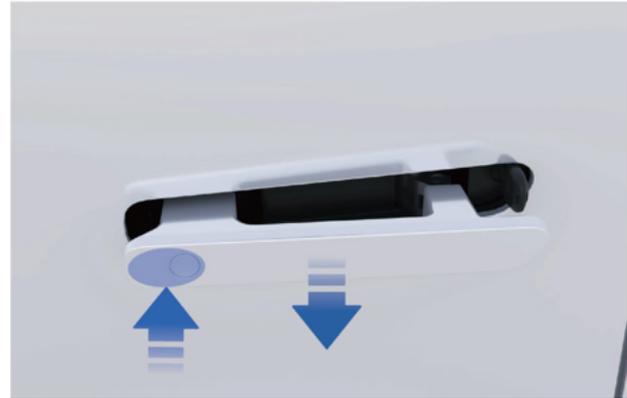
On the right side of the vehicle, there is an electric sliding door which can be opened/closed through a variety of methods.

## Operating instructions

### Exterior operation

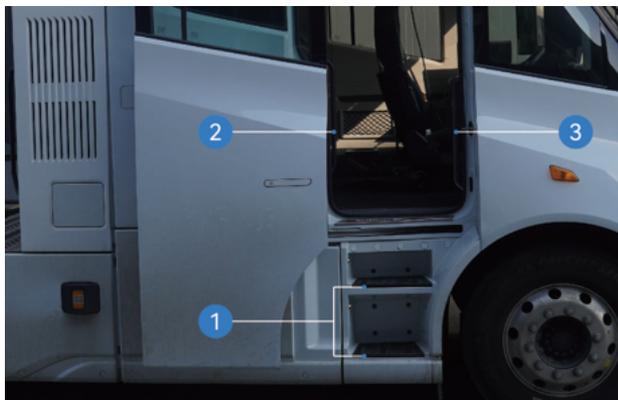


Electric: Once the vehicle is unlocked, press the flush door handle switch, and the electric sliding door will automatically open/close.



Manual: Once the vehicle is unlocked, press the front end of the flush door handle to tilt it, pull the flush door handle outward to unlock the electric sliding door and open it manually.

## Enter the vehicle



1. Steps
2. Left grab handle
3. Right grab handle

After the electric sliding door is opened, please follow the following steps to enter the interior of the vehicle:

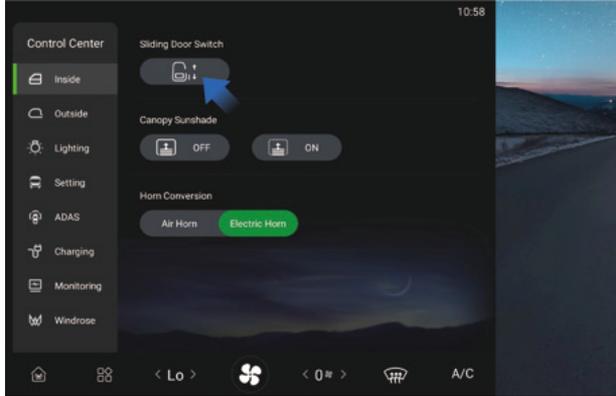
1. Facing the door, hold the left and right grab handles with both hands. Reach up as far as is comfortable.
2. Place one foot on the bottom step and pull yourself up.
3. Place your other foot on the top step.

4. Move your lower hand to a higher position on the grab handle.
5. Enter the vehicle.

### Warning

- Slipping or falling from the vehicle can result in personal injury or property damage.
- Wet or dirty shoes greatly increase the chance of slipping or falling. If your shoes are wet or dirty, be especially careful when entering or exiting the vehicle.
- Always maintain three-point contact with the vehicle when entering or exiting the cab. Three-point contact means both feet and one hand, or both hands and one foot.
- Do not jump from the vehicle.

## Interior operation



Operation through vehicle information screen: Once the vehicle is unlocked, you can open/close the electric sliding door by selecting "Control Center", switching to "Inside" interface, and clicking "Sliding Door Switch" button on the vehicle information screen of the instrument panel.



Electric: Once the vehicle is unlocked, press the switch on the B-pillar trim panel at the front of the electric sliding door to open/close the electric sliding door.



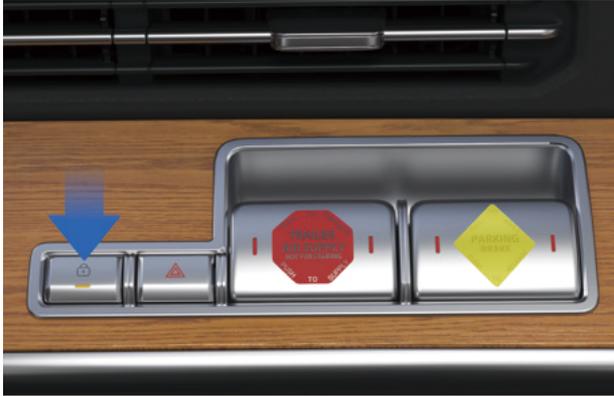
Manual: Once the vehicle is unlocked, the electric sliding door will be closed, and you can pull the inside handle backward to unlock the electric sliding door; If the electric sliding door is open, hold the inside handle and push the electric sliding door forward to close it.

### In-vehicle emergencies



In case the electric switch or inside handle fails, remove the lower cover plate of the electric sliding door protective plate and pull the inside cable to manually unlock the electric sliding door.

## Central lock switch



After the electric sliding door is closed, you can press the central lock switch in the combination button on the right side of the instrument panel to lock the electric sliding door, and the status indicator will be illuminated; Press the central lock switch again, and the status indicator will go out and the electric sliding door will be unlocked.

## Manual mode of sliding door



You can activate/deactivate the sliding door manual mode by selecting "Control Center", switching to "Monitoring" interface, and clicking "Manual Mode Of Sliding Door" button on the vehicle information screen of the instrument panel. After this function is enabled, the rear sliding door can only be opened/closed manually.

### Sliding door anti-pinch function

When encountering an obstacle during automatic closing of the sliding door, the sliding door will stop closing and automatically return to opening state.

### Precautions

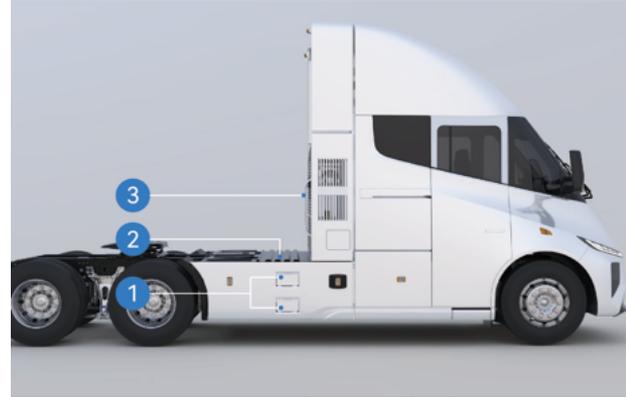
#### Warning

The sliding door anti-pinch function can only be activated when the door is closed electrically rather than manually.

## Accessing Back-of-Cab Area

Access to Vehicle

### Function introduction



1. Hidden steps
2. Deck plate
3. Grab handles

## Operating instructions

You can only access the back-of-cab area from the right side of the vehicle. Before accessing the back-of-cab area, you need to manually activate the hidden steps.

When you need to access the back-of-cab area, you need to follow the steps below to avoid accidental injury or vehicle damage.

### Accessing back-of-cab area

1. Face the rear of the cab on the right side of the vehicle and grasp the grab handle with hand. Reach up as far as is comfortable.
2. Place one foot on the bottom step and pull yourself up.
3. Place your other foot on the top step.
4. Move your lower hand to a higher position on the grab handle.
5. Step onto the deck plate.

### Exiting back-of-cab area

1. Facing toward the center of the vehicle, grasp the grab handle with both hands.
2. Step one foot at a time onto the top step.
3. Move your upper hand to a lower position on the grab handle.
4. Move one foot to the bottom step.

5. Step to the ground with your upper foot first.

#### Warning

- Failure to follow the following rules for back-of-cab access could lead to a fall and possible personal injury.
- Always follow safety procedures for back-of-cab access, maintaining three-point contact—both hands and one foot, or both feet and one hand—whenever moving around.
- Always face in toward the deck plate when climbing up or down.
- Do not climb up or down facing out away from the vehicle.
- Never step on any exterior part unless it has a slip-resistant surface meant for safe stepping. If the surface is movable, make certain it is firmly secured before stepping on it.
- Be careful not to trip on items such as chains or air lines.
- Wet or dirty shoes, steps, or grab rails greatly increase the chance of slipping or falling. If your shoes or the contact areas are wet or dirty, clean and dry them as much as possible before accessing the back of cab area, and be especially careful when climbing or standing on the vehicle.
- Never jump onto, or off of, a vehicle; doing so creates a very high likelihood of a fall and personal injury.

# Seat Belt

Access to Vehicle

## Function introduction

Both the driver and passenger seats are equipped with seat belts, which can prevent or mitigate injuries to occupants in the event of emergency braking or collision of the vehicle.

## Operating instructions

The driver seat belt is on the left side of the driver seat, and you can pull it out directly to wear it.



The front passenger seat belt is on the right side of the front passenger seat. When the front passenger seat is occupied, please notify that person of the importance of wearing seat belts in a timely manner.

Seat belt wearing should follow the following requirements:

- The seat belt should fit low across the pelvis, i.e. hip, as much as possible rather than across the abdomen.
- The seat belt should fit closely to your body without twist.
- The shoulder portion should fit across the middle of the shoulder.
- Never fit it across the neck or armpit.
- Pull the shoulder belt upwards to fit closely to the hip.
- Check whether the seat belt is fully buckled again before driving.

## Seat belt reminder

If the driver seat belt is not fastened, the seat belt reminder warning lamp on the instrument cluster will be illuminated; After the driver fastens the seat belt, the warning lamp on the instrument cluster goes out.

### Treatment of dirty seat belts

If the seat belt is dirty, you can clean it using foam cleaner, toothpaste, toothbrush, or mild soapy water.

Pull out and fix the entire seat belt, spray detergent evenly in the contaminated area of the seat belt, brush it carefully with a soft brush (such as a shoe brush), wash with clean water after brushing, and release the seat belt once the surface of the seat belt is completely dry.

### Precautions

#### Warning

When the vehicle is driving, all occupants must wear seat belts correctly. Wearing seat belts properly during emergency braking or accidents can reduce the severity of injuries to passengers.

- Improper use of seat belt or failure to wear a seat belt may result in severe casualties!
- Passengers are not allowed to sit in an area not equipped with a seat and seat belt or in a seat with damaged seat belt.
- Each seat belt is only allowed to be used by one person. Do not share a seat belt with more than one person.
- It is forbidden to hang the shoulder belt around the neck or under the armpit.

- It is forbidden to remove, disassemble and modify seat belts.
  - Do not use bleach, dyes or chemical solvents to clean seat belts.
- 

## Power Window

Access to Vehicle

### Function introduction

The windows can be adjusted via the combination button on the left side of the instrument panel or the sleeper switch.

The vehicle has the function of auto window closing upon locking the vehicle, which means after the vehicle is powered off and locked, the windows will automatically rise until they are closed.

## Operating instructions

### Window adjustment via combination button



1. Left window control switch: Press and hold the up and down switch buttons to control the opening of the left window; Press and release the left window control switch button up and down to raise or lower the left window with one click.
2. Right window control switch: Press and hold the up and down switch buttons to control the opening of the right window; Press and release the right window control switch button up and down to raise or lower the right window with one click.

### Window adjustment via sleeper switch



1. Left window control switch: Press and hold the up and down switch buttons to control the opening of the left window; Quickly press and release the two buttons respectively to automatically close or open the window completely (one-button lifting).
2. Right window control switch: Press and hold the up and down switch buttons to control the opening of the right window; Quickly press and release the two buttons respectively to

automatically close or open the window completely (one-button lifting).

## Precautions

### Warning

- Before closing the windows, it is important to ensure that all passengers are not sticking out any part of their body, otherwise serious injury may be caused.
- Do not operate the windows at high speeds.

### Note

Remove the snow and ice from the surface of window in a timely manner to avoid stagnation during movement of the window or to prevent the window from being unable to open and close normally.

## Sleeper Privacy Curtain\*

Access to Vehicle

### Function introduction

Privacy curtain rails are designed for the sleeper, which can be used to install the privacy curtain for protection of your privacy and shielding from the sun.

### Operating instructions

#### Sleeper privacy curtain rail



The sleeper privacy curtain rails are mounted on the roof above the sleeper, which are used to install the corresponding privacy curtain according to your personal preferences.

### Sleeper privacy curtain\*



Sleeper privacy curtain can be found on certain vehicles which can block sunlight or protect your privacy while resting.

## Precautions

### Notice

Do not pull the privacy curtain with great effort to prevent it from falling.

## Panoramic Sunroof

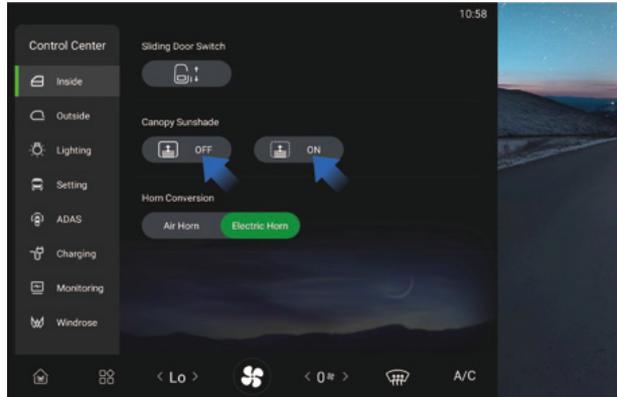
[Access to Vehicle](#)

### Function introduction



A panoramic moonroof and moonroof sunshade are designed on the vehicle. The panoramic moonroof is only used to let in light and for you to see through it, and it cannot be operated. You can cover the panoramic moonroof with the moonroof sunshade.

## Operating instructions



You can adjust the moonroof sunshade by clicking "Canopy Sunshade" and switching to "Inside" interface on the vehicle information screen.

- Press and hold the ON/OFF button to open/close the moonroof sunshade, and release the ON/OFF button to stop the movement of the sunshade.
- Press and release the ON/OFF button to move the moonroof sunshade automatically to the fully open/close position.

## Precautions

### ! Notice

- Do not manually pull the moonroof sunshade to avoid damages.
- Do not scratch the moonroof glass, moonroof sunshade, or adhesive strips around the glass with sharp objects.

# Windshield Electric Sunshade

Access to Vehicle

## Function introduction



When the vehicle is facing towards the sun, you can use the windshield electric sunshade to block the sunlight so as to ensure the driving safely.

## Operating instructions

You can adjust the windshield electric sunshade via the combination button on the left side of the instrument panel.



1. Windshield electric sunshade lowering switch: Press this button to lower the windshield electric sunshade, and release the button to stop the movement of the windshield electric sunshade.
2. Windshield electric sunshade rising switch: Press this button to raise the windshield electric sunshade, and release the button to stop the movement of the windshield electric sunshade.

## Precautions

### Notice

Do not manually pull the windshield electric sunshade to avoid damages.

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### Note

When using the sunshade, make sure it does not interfere with effective vision.

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## Interior Sleeper

*Access to Vehicle*

### Function introduction

In the vehicle, there are sleepers for the driver and passengers to rest.

## Operating instructions



The upper right cushion of the sleeper can be manually flipped and folded to the left to make room for the front passenger seat. If a height-adjustable sleeper is mounted on the right side of the vehicle, then the upper cushion of the right sleeper can be manually raised and fixed so that it can be used as a sleeper headrest available in multiple gears. To put the sleeper down, you can raise the upper cushion of the right sleeper to the highest position and then release.

## Sleeper protection net



The vehicle has sleeper protection net. Before using the sleeper, unfold the sleeper protection net as shown in the figure, and then insert the 8 tongues in the left, right and rear wall of the sleeper into the 8 buckles at the left, right and rear end of the protection net respectively to lock the protection net in position.

## Precautions

### Notice

- When folding the front passenger seat or lifting the upper cushion of the sleeper, be careful not to pinch your fingers.
- Please install the protection net properly before using the sleeper; If the protection net is not used, there may be a risk of passengers falling off from the sleeper, increasing the probability of injuries and deaths in accidents.

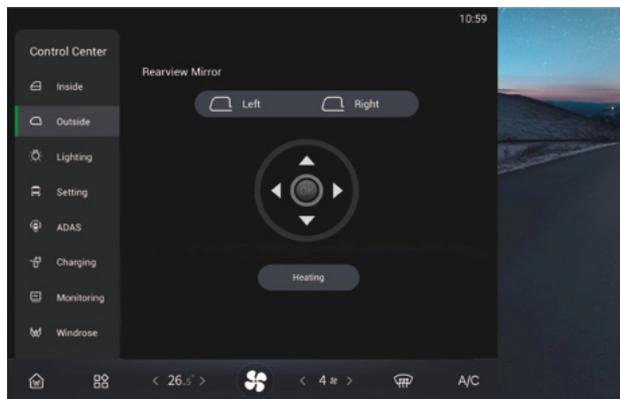
## Rearview Mirror

[Access to Vehicle](#)

### Function introduction

Physical rearview mirrors are mounted on the vehicle to provide the driver with a efficient driving view.

## Operating instructions



You can adjust the physical rearview mirrors by selecting "Control Center" and switching to "Outside" interface in the vehicle information screen of the instrument panel.

- Left/right adjustment  
Click to select and adjust the left/right physical rearview mirrors separately.
- Rearview mirror heating  
Click to select this option, and the physical rearview mirrors will be heated to defrost and defog. Click again to turn it off, or it will be automatically turned off after power-off.

## Precautions

### Warning

- Be sure to adjust the rearview mirrors correctly before driving, as this behavior is strictly prohibited during driving. Failure to observe this requirement will cause personal injury or death and property damage.
- Do not cover the sensor. Dirt, ice and snow, if attached to the camera, may degrade its function and performance. Always pay attention to the cleanliness of the camera and its surroundings to avoid traffic accidents.

## Cup Holder

[Access to Vehicle](#)

### Function introduction

Cup holders are positioned on the left and right sides of the instrument panel separately, as well as on the armrest of the front passenger seat, so that you can place water cup or beverage container in the corresponding cup holder.

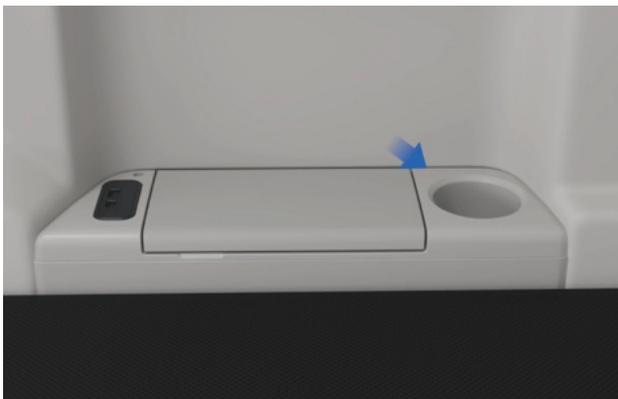
## Operating instructions



- Cup holders (left)



- Cup holders (right)



- Cup holder on right side of front passenger seat

## Precautions

### ⚠ Warning

Do not put hot drinks in the cup holder that are not tightly covered. Otherwise they may spill when the vehicle bumps, causing personal injury or damage to vehicle components.

### 📌 Note

- Only beverage containers that can be sealed and properly sized can be put in the cup holder so as to prevent spilling.

- Do not forcibly put an inappropriate container into the cup holder, otherwise the container or vehicle may be damaged.

---

## Ash Tray

Access to Vehicle

### Function introduction

There is an ashtray on the vehicle for the convenience of storing cigarette butts and ashes.

## Operating instructions



The ashtray is mounted in the cup holder on the right side of the instrument panel. You can put the ashtray in other positions according to your individual needs.

## Precautions

### Warning

- Do not smoke while driving to avoid accidents or violations of applicable regulations.

- Before throwing cigarette butts into the ashtray, make sure the cigarette butts are extinguished to avoid fire accidents caused by burning cigarette butts.
- When installing the ashtray, make sure it is securely installed and fastened to prevent the ashtray from shaking in the vehicle or separating from the fastening device.

### Note

When the ashtray is finished, be sure to cover it to avoid spilling of the cigarette butts or ashes.

# Side Toolbox

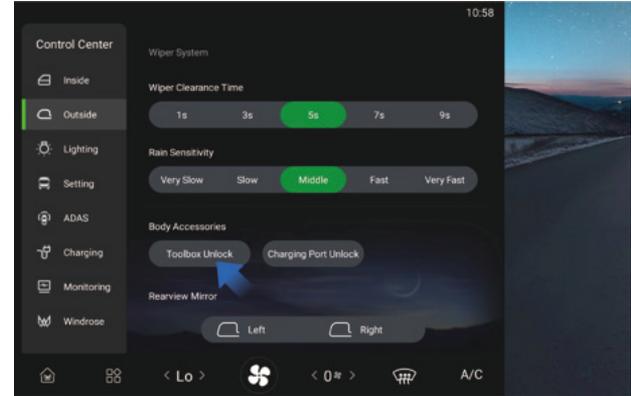
Access to Vehicle

## Function introduction



The driver's tools of the vehicle are placed in the toolbox on the left side of the vehicle for use in case of an emergency.

## Operating instructions



You can unlock the toolbox by selecting "Control Center", switching to "Outside" interface, and clicking "Toolbox Unlock" button on the vehicle information screen of the instrument panel. The toolbox is closed manually from outside the vehicle. There is a lamp in the toolbox, and it will be automatically illuminated when the toolbox is opened and turns off automatically when the toolbox is closed.

## Precautions

### Warning

Keep the toolbox closed during driving to avoid accidents.

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## Interior Storage Device

*Access to Vehicle*

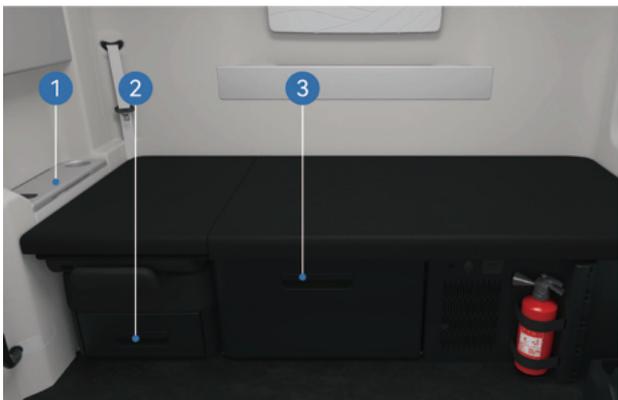
### Function introduction

There are multiple storage devices in the vehicle for you to store items of different sizes.

## Operating instructions



There is a storage box at the lower right of the instrument panel where you can store items.



1. Storage box on the right side of the front passenger seat
2. Storage box under the front passenger seat
3. Storage box under sleeper

Storage box can be found under the sleeper and the front passenger seat. You can pull it out to use it. A storage box is situated on the right side of the front passenger seat where you can store smaller items.



There is a storage box above the sleeper. The lamp in the storage box will be automatically illuminated when the storage box is opened and automatically go out when the storage box is closed. The maximum bearing capacity of the large storage box above the sleeper is 25kg, and that of the small storage box is 15kg.



On vehicles without AR-HUD, a storage box is positioned at the location of the AR-HUD where you can place smaller items. Place small and light items rather than sharp objects in the box to avoid damage to the inner leathers of the box.

## Precautions

### ① Note

Make sure the storage boxes are closed before driving, so as to avoid damage to items or personal injury when items fall from a height during driving.

## Net Bag

Access to Vehicle

### Function introduction

There is a net bag on the lower left of the vehicle to hold some smaller items.

### Operating instructions



- Net bag

## Precautions

### Note

Do not place sharp objects in the net bag to avoid damage to the net bag or injury to the driver.

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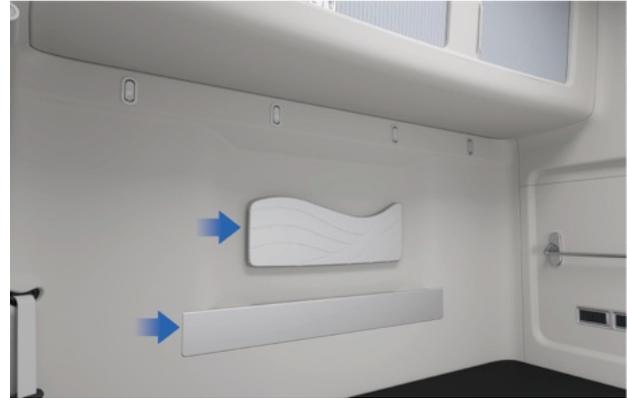
## Newspapers and Periodicals Device

Access to Vehicle

### Function introduction

There is a newspapers and periodicals bag on the back of the driver seat, which can be used to store small items such as newspapers and maps.

Next to the sleeper, there is a newspapers and periodicals device where you can store newspapers, periodicals and other items.



- Newspapers and periodicals bag above sleeper



- Newspapers and periodicals bag on the right side of the sleeper

## Precautions

### ① Note

The newspapers and periodicals device affixed to the sleeper can only hold items such as newspapers and periodicals. Small items, if placed in the bag, cannot be taken out from the bag.

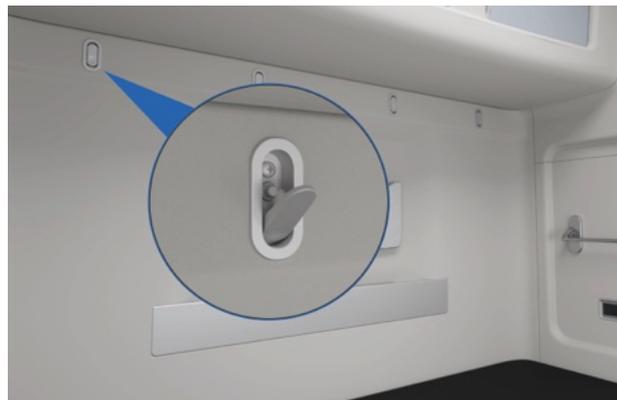
## Coat Hook

Access to Vehicle

### Function introduction

There is a coat hook above the sleeper that is used for hanging clothes up.

### Operating instructions



- Coat hook

## Precautions

### Note

The coat hook can only hold light clothes or hats, etc. Do not hang heavy objects.

---

## Hanging Device

*Access to Vehicle*

### Function introduction

There is a hanging device on the side of the sleeper that can be used to hang towels or small clothes.

## Operating instructions



- Hanging device

## Precautions

### ① Note

The hanging device can only be used to hang dry towels or small clothes. Do not hang heavy objects to avoid damaging the hanging device and causing accidents.

---

## USB Charging

Access to Vehicle

### Function introduction

The vehicle is provided with USB ports, respectively located on the left instrument panel and the armrest of the front passenger seat. The USB ports can be used to charge mobile phone with a charging power of 15W. Both type-C and type-A ports are supported.

## Operating instructions



- Instrument panel left USB port



- USB port at front passenger seat armrest

## Precautions

### Warning

Never spill liquid at the port.

### Notice

Connected devices may get hot during charging. Make sure that the hot devices will not endanger personnel safety or cause property damages.

## Phone Wireless Charging

Access to Vehicle

The right instrument panel is equipped with a wireless charging device, which can be used to charge mobile phones wirelessly with a charging power of 15W.

When charging, please place the mobile phone face up within the wireless charging induction area.

### Operating instructions



- Phone wireless charging area

## Precautions

### ⚠ Warning

Do not place objects containing metal components in the wireless charging induction area together with the mobile phone, otherwise the objects containing metal components may be heated or damaged, causing a safety accident.

---

### ℹ Notice

- Before activating the wireless charging function of the phone, ensure that the card key, credit card or other magnetic objects are kept away from the charging area.
  - Do not put the unattended mobile phone in the vehicle for charging, so as to avoid the safety risk.
  - Do not spill liquids at the wireless charging area to avoid damage to the electronic components.
  - Please do not place heavy objects in the charging area to avoid damaging the wireless charging module of the mobile phone.
- 

### ℹ Note

- It is normal for the mobile phone to experience an increase in temperature during charging.
- When the mobile phone is hot, the vehicle may stop charging to protect the battery of the mobile phone and the charging will not be resumed until the mobile phone cools down.
- The wireless charging function only supports mobile phones, earphones, stereos and other devices that meet the wireless charging protocol.
- When using the wireless charging function, please place the device in the center of the charging area to prevent the device from failing to be charged or being charged inefficiently.
- Only 1 mobile phone can be charged at a time.
- If the phone case is made of special material (such as a phone case with a metal bracket/metal magnet) or is too thick, it may cause charging failure.
- When the vehicle is driving on a bumpy road, the wireless charging of the mobile phone may be intermittently stopped.
- If the mobile phone cannot be charged properly, always make sure that the mobile phone is placed in the wireless charging area without foreign objects, or wait for the wireless charging induction area to cool down before another try. If charging is

still impossible, please contact a Windrose authorized service station in time.

---

## Power Outlet

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Access to Vehicle

### Function introduction

A DC power supply is positioned at the lower left of the sleeper which is configured as follows:

- Rated voltage: 12V
- Maximum current: 10A

At the lower left of the sleeper, there is a 120V inverter and socket which are configured as follows:

- Rated power: 1000W
- Rated voltage: 120VCA
- Output frequency: 60Hz±1Hz

## Operating instructions



1. DC power supply
2. AC power supply

### Precautions

#### Notice

The 120V inverter can only be used when the vehicle is connected with high voltage. If the vehicle is powered off, only the 12V power supply is available.

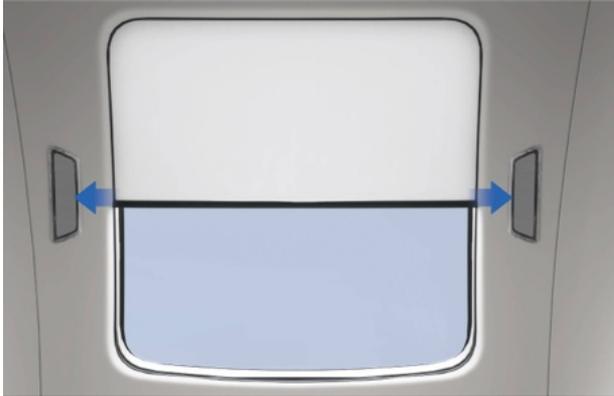
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# Ceiling Lamp

Interior Lighting

## Function introduction



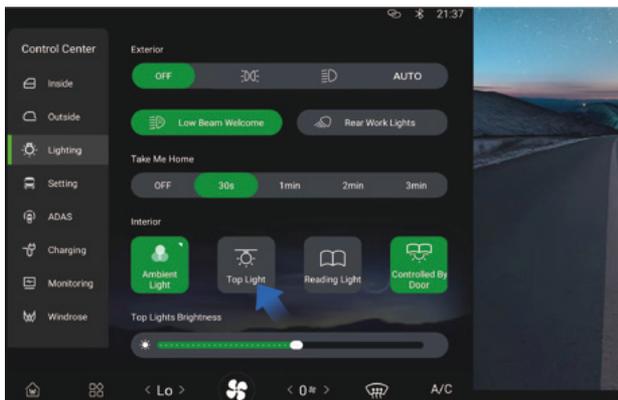
The ceiling lamp can be turned on and off in two ways.

## Operating instructions



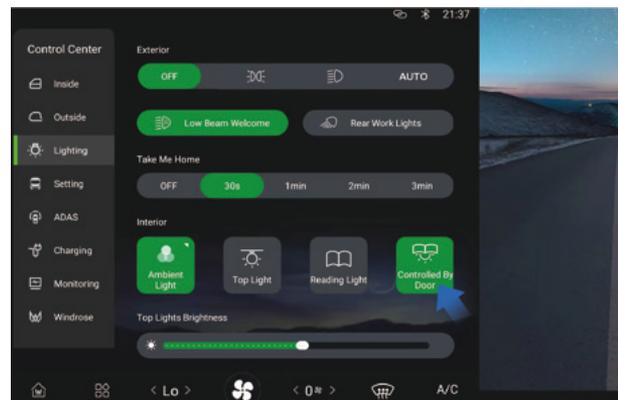
1. Ceiling lamp on switch
2. Ceiling lamp/interior lamp off switch

Press the upper ceiling lamp on switch to turn on the ceiling lamp; Press and release the lower ceiling lamp/interior lamp off switch to turn off the ceiling lamp, and press and hold the upper ceiling lamp/interior lamp off switch to turn off the ceiling lamp.



In addition, you can turn on/off the ceiling lamp by selecting "Control Center", switching to "Lighting" interface and clicking "Top Light" button on the vehicle information screen of the instrument panel.

## ON/OFF with door opening/closing function



You can activate/deactivate the ON/OFF with door opening/closing function by selecting "Control Center", switching to "Lighting" interface, and clicking "Controlled By Door" button on the vehicle information screen of the instrument panel. When this function is activated, the ceiling lamp will be illuminated or go out when the door opens or closes.

## Precautions

### Warning

When driving at night, do not use front interior lamps. Bright lights inside the vehicle can reduce the visibility when driving at night, probably causing a collision.

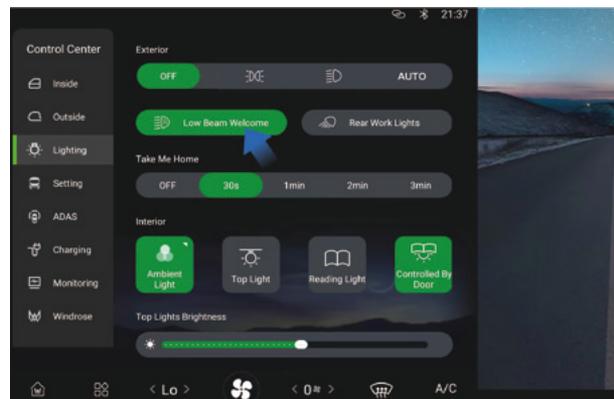
## Courtesy Lamp

Interior Lighting

### Function introduction

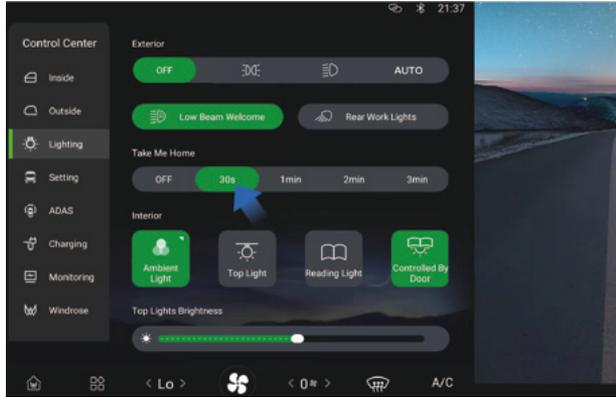
The vehicle has welcome light function.

## Operating instructions



You can activate/deactivate low beam welcome function by selecting "Control Center", switching to "Lighting" interface, and clicking "Low Beam Welcome" button on the vehicle information screen of the instrument panel.

## Follow-me-home



You can activate/deactivate the follow-me-home function by selecting "Control Center" and switching to "Lighting" interface on the vehicle information screen of the instrument panel.

## Precautions

### Note

You can set the duration of follow-me-home as needed.

## Reading Lamp

Interior Lighting

### Function introduction

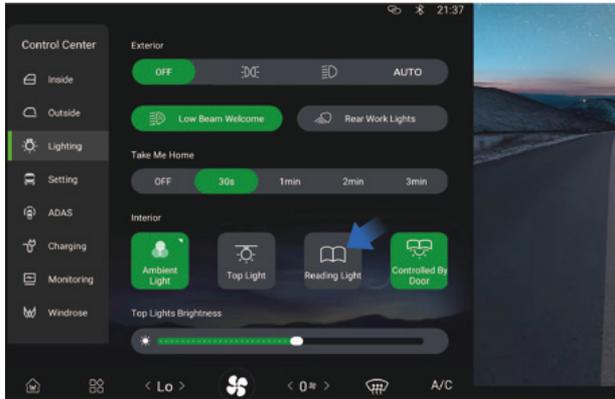
The cab and the sleeper are equipped with reading lamps that can be turned on when you need reading lighting.

### Operating instructions

#### Cab reading lamp



- Cab reading lamp



You can activate/deactivate the reading lamp by selecting "Control Center", switching to "Lighting" interface, and clicking "Reading Light" button on the vehicle information screen.

## Sleeper reading lamp



There is a reading lamp above the sleeper, which can be pulled out by pressing the front end to turn on the switch. This lamp will be automatically illuminated when it is pulled out, and it is allowed to adjust the lamp angle according to your needs. Reset the reading lamp, and it will be turned off automatically.

## Precautions

### Note

When the ambient light is weak, do not turn on the reading lamps while driving. Otherwise the windshield may have reflections, resulting in unclear visibility of the road ahead and further a safety accident.

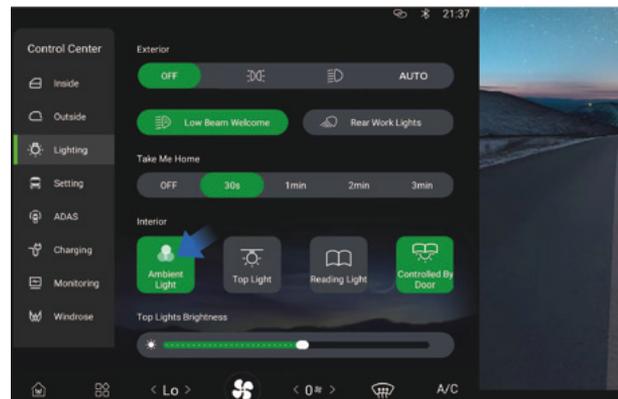
## Ambient Lamp

Interior Lighting

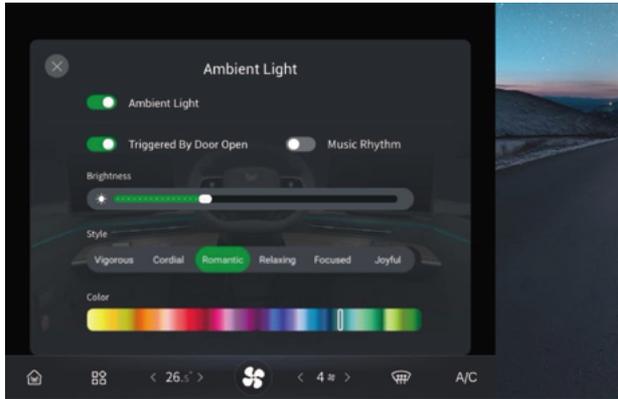
### Function introduction

The vehicle has ambient lamps that can switch among a variety of colors and realize musical rhythm.

### Operating instructions



You can adjust the ambient lamp by selecting "Control Center", switching to "Lighting" interface and selecting "Ambient Light" button on the vehicle information screen of the instrument panel.



You can adjust the ambient lamp by yourself according to your needs and preferences.

## Precautions

### Note

When using ambient lamps, make sure the light color does not interfere with the driver's vision and ensure driving safety.



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# A/C Control System

A/C on Vehicle

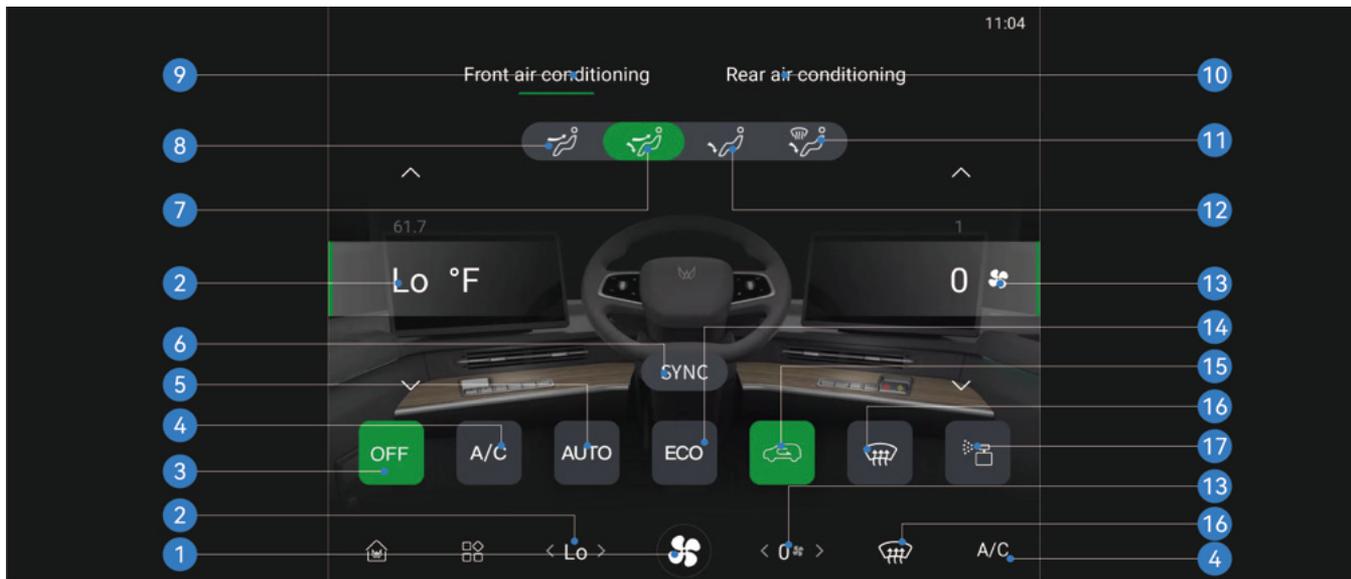
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## Function introduction

You can set and control the A/C through the A/C interface in the vehicle information screen or through the A/C control panel on the upper right of the sleeper in the vehicle.

### Front A/C system interface

In the A/C interface of the vehicle information screen, you can set the air volume, temperature or air direction of the front and rear A/C by switching between the front and rear A/C interface.



- |                          |   |  |  |
|--------------------------|---|--|--|
| 1. Enter A/C interface   | 6. Vehicle A/C temperature synchronization switch | 11. Foot blowing and defrost mode        | 16. Windshield defrosting/defogging switch |
| 2. Front A/C temperature | 7. Face and foot blowing mode                     | 12. Foot blowing mode                    | 17. Fragrance interface*                   |
| 3. Front A/C OFF switch  | 8. Face blowing mode                              | 13. Front A/C air volume                 |  |
| 4. Compressor switch     | 9. Front A/C interface                            | 14. ECO mode switch                      |  |
| 5. Auto mode switch      | 10. Rear A/C interface                            | 15. Internal/external circulation switch |  |

## Rear A/C system interface



- |                                |                        |                                 |   |
|--------------------------------|------------------------|---------------------------------|---|
| 1. Enter A/C interface         | 3. Rear A/C OFF switch | 5. Rear A/C interface           | 7. Compressor switch                      |
| 2. Driver area A/C temperature | 4. Front A/C interface | 6. Front A/C airflow adjustment | 8. Windshield defrosting/defogging switch |

## Operating instructions

Icon	Name	Note
	A/C main switch	Control the ON/OFF of all A/Cs throughout the vehicle
	Compressor switch	Control the ON/OFF of in-vehicle A/C compressor
	Auto mode switch	Control the ON/OFF of A/C automatic mode
	ECO mode switch	Control the ON/OFF of the A/C ECO mode
	Internal/external circulation switch	Control the switching between internal/external circulation of the A/C
	Windshield defrosting/defogging switch	Windshield defrosting/defogging control switch

Icon	Name	Note
	Fragrance interface*	Click to enter the fragrance control interface
	Vehicle A/C temperature synchronization switch	Control the A/C synchronization mode so that the temperature throughout the vehicle is consistent with the A/C settings of the driver seat
	Face blowing mode	Control the A/C vent to blow air towards the upper body of the driver and passengers
	Face and foot blowing mode	Control the A/C vent to blow air towards the upper body and foot area of the driver and passengers
	Foot blowing mode	Control the A/C vent to blow air towards the foot area of the driver and passengers

Icon	Name	Note
	Foot blowing and defrost mode	Control the A/C vent to blow air towards the foot area of the driver and passengers as well as the windshield
	A/C volume adjustment	Control the air volume of the A/C in the range of 0-7th gear

## A/C control panel

The A/C control panel only controls the corresponding functions of the rear A/C.



1. Rear compressor switch button
2. Rear A/C switch
3. Rear A/C temperature increase
4. Rear A/C volume+
5. Rear A/C volume-
6. Rear A/C temperature decrease

## Precautions

### ⚠ Warning

- Before driving, make sure that all windows are free of ice, snow or fog, otherwise your vision will be obstructed, thus resulting in a traffic accident.
- Do not turn on the internal circulation function for a long time, which may cause the air in the vehicle to be not fresh and the windows to fog.

### ℹ Note

- Turning off the compressor switch cannot turn off the A/C system, and the heating system may still be working.
- When you turn on the A/C system for the first time in very humid environment, it is normal for the windshield to fog up slightly.
- If the A/C system works aloud, you can manually downshift the air volume of the A/C.
- A slight sound like water running or a swishing sound can be heard when the A/C system is working or turned off. This sound is made by the refrigerant during normal operation of the A/C system, which is normal.

- When you feel that the air inside the vehicle is muddy and dull, you can turn on the external circulation function to introduce the outside air into the vehicle to keep the air in the vehicle fresh.

---

## A/C Vent Adjustment

A/C on Vehicle

### Function introduction

The front A/C vents are located in the windshield, the instrument panel and the legroom under the instrument panel. The rear A/C vents are located on the left side of the sleeper in the vehicle.

## Operating instructions

### Adjustment of front A/C vent



You can manually adjust the paddles at the front vent to control the up and down or left and right blowing angle of the front vent.

## Adjustment of rear A/C vent



You can manually adjust the paddles at the rear vent. You can turn the paddle up and down to adjust the up and down blowing angles of the rear vent, or turn the paddle left and right to adjust the left and right blowing angles of the rear A/C vent or close the vent. Keep at least one vent open when adjusting the rear A/C vents.

## Precautions

### Notice

When adjusting the vent paddles, do not apply great force to avoid damage to paddles.

## In-Vehicle Fragrance

A/C on Vehicle

### Function introduction

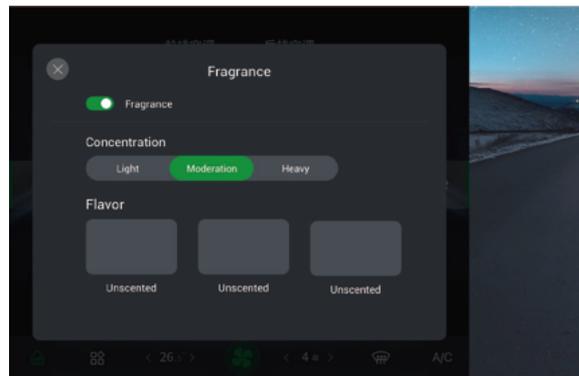
The vehicle has an in-vehicle fragrance device, which can be mounted in the fragrance box in the lower trim area on the right side of the driver seat according to your personal preferences.

### Operating instructions

1. Open the cap of the fragrance bottle, insert the thin end of the fragrance bottle into the hole in the fragrance mechanism above the right lower trim area of the seat, and press down gently to install the fragrance bottle in place.
2. Once the fragrance bottle is inserted into the hole, it will be adsorbed into place by the magnet in the fragrance mechanism.



3. After the fragrance bottle is installed in place, the information of the fragrance inserted into the current hole will be prompted on the vehicle information screen.
4. When changing the fragrance bottle, you need to pinch the bottom of the fragrance bottle with your fingers and slowly remove the fragrance bottle from the fragrance mechanism.
5. After the fragrance is successfully installed, you can enter the A/C setting interface in the vehicle information screen, and click "Fragrance" to turn on/off the fragrance system, adjust the concentration of the corresponding fragrance and select different flavors of fragrance in this interface.



## Precautions

### Warning

- Keep the fragrance bottle out of the reach of children so as to avoid poisoning caused by accidental ingestion of substances in the bottle.
- Do not insert your fingers into the cavity of the fragrance mechanism to avoid personal injury.
- Do not install or replace the fragrance bottle while driving to avoid accidents.
- If you feel uncomfortable when using the fragrance, stop using the fragrance system immediately.

- In case personnel with allergic or respiratory diseases are sitting in the vehicle, use the fragrance system with caution.
- 

#### **Notice**

- Pay attention to the expiration date of the fragrance bottle before installation. The unpacked fragrance lasts for 1 year, while the packed one lasts for 3 months. Use the fragrance within the expiration date and replace the fragrance when it reaches the expiration date.
  - When replacing the fragrance bottle, keep hands clean and ensure the fragrance system is functioning properly.
  - A magnet is mounted below the fragrance mechanism. Do not put mobile phones, tablets and other electronic devices close to the fragrance hole above the open storage area of the central control, so as to avoid affecting the function of electronic devices and fragrance modules.
  - Since fragrances may react chemically with organic matters, direct contact with the plastic parts is prohibited for the ceramic fragrance core in the bottle.
- 

#### **Note**

- The fragrance experience will vary with the interior temperature, the A/C volume, and your physiological state.
  - The ceramic fragrance core in the fragrance bottle should be purchased through official channels so as to avoid damage to the fragrance bottle and ensure the quality of the fragrance.
  - After installation of the fragrance bottle, if the fragrance system is not successfully recognized, install the fragrance bottle again.
-



# Charging Port

Vehicle Charging

## Function introduction



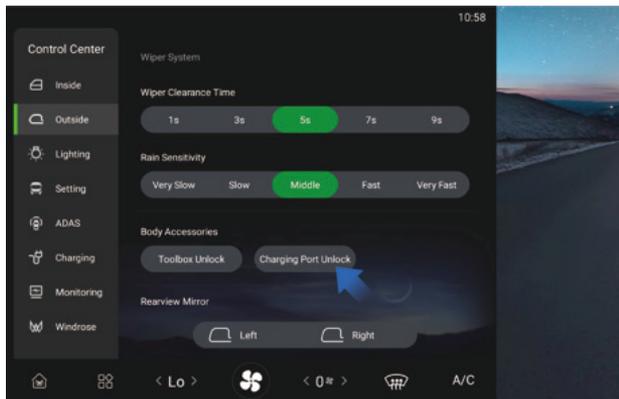
- Charging port on the left side of the vehicle, charging mode is MCS/CCSI, supports fast charging.



- Charging port on the right side of the vehicle, charging mode is 2\*CCS1, supports fast charging.

## Operating instructions

### Interior operation



You can unlock the charging port cover by selecting "Control Center", switching to "Outside" interface, and clicking "Charging Port Unlock" button on the vehicle information screen of the instrument panel, and the charging port cover can be properly activated by pressing at this time.

## Precautions

### Note

- The charging port cover can only be unlocked instead of being closed through the vehicle information screen in the vehicle. To close the charging port cover, you still need to operate it outside the vehicle.

# Charging Preparation

Vehicle Charging

## Function introduction

When charging this vehicle, please use a charging device with a voltage  $\geq 1000V$  to charge the vehicle. Charging devices smaller than this standard will not be able to charge the vehicle.

## Operating instructions

### Preparation

1. Check the charging pile cable and vehicle charging socket for damage, immersion, ablation and other obvious abnormalities, and make sure there are no obvious safety hazards in the charging pile and the surrounding environment before charging.
2. Park the vehicle near the charging device and make ensure the vehicle is free of any abnormalities such as insulation fault. The vehicle can be charged both under high-voltage and non-high-voltage conditions.

## Charging preparation



1. Insert the charging plug connector into the charging port. When it is inserted in place, you can hear a "click" sound which means that the connection is successful. Then the charging port electronic lock will be activated, and the instrument cluster will display the charging connection prompt icon.
2. Follow the instructions on the charging screen to start the charging process by swiping the card or scanning the code. On the display of the charging pile, select the corresponding

charging mode and charging parameters, confirm that the information is correct, and click "Start charging" button to start charging the vehicle by the charging device. The charging pile display will indicate the charging progress, charging time, charging power and other information in real time.

3. During charging, you can actively click "Stop charging" button to stop charging. When the charging is completed, the device display will show that the charging is complete. You should click "Stop charging" button to stop charging the device and unlock the charging port electronic lock. Unplug the charging plug and put it back to the plug base of the charging device.

### Charging indicator



The indicator on the top of the windshield will change into a charging indicator during charging of the vehicle. When the high voltage battery SOC is lower than 30%, the left charging indicator flashes; When the high voltage battery SOC becomes 30%-90%, the left charging indicator remains on; When the high voltage battery SOC is greater than 90%, the left and middle charging indicators remain on and the right charging indicator flashes; When the high voltage battery SOC reaches 100%, the left, middle and right charging indicators remain on.

## Emergency unlocking



When the charging stops or the charging stops due to fault, and the electronic lock of the charging gun cannot be pulled out, the hexagon socket bolt can be screwed to try to unlock.

## Precautions

### Warning

- Before charging, it is important to confirm that the charging output voltage platform and the low-voltage auxiliary power supply are matched with the vehicle, and the charging connector is in line with the requirements of regulations.
- It is forbidden to stack flammable and explosive materials around the charging pile, and it is important to keep the surrounding environment of the charging device well ventilated.
- During charging, it is forbidden to touch the charging plug connector and the vehicle charging port to avoid electric shock.
- If the device is found abnormal, for example, smoking, emitting odor, making abnormal noise, etc., stop charging immediately and contact a professional for maintenance.
- Unlock the vehicle before inserting/pulling out the charging plug without any skewing, shaking and aggressive operation.
- The charging port electronic lock will be activated and fixed when the charging starts, thus it is forbidden to unplug the charging plug violently; When the charging ends, unlock the vehicle and end the charging in the vehicle information screen to release the charging port electronic lock.
- Do not operate the electronic lock unlocking bolt during normal charging.

#### Notice

Over-discharge of the high voltage battery should be avoided as much as possible to ensure the safe service life of the high voltage battery. When the high voltage battery SOC is lower than 20%, the instrument cluster will display an alarm prompt indicating that the high voltage battery SOC is too low; When the high voltage battery SOC is lower than 5%, the vehicle will enter the power limit mode, and the vehicle speed will decrease with the increase of the depth of discharge (DoD) of the high voltage battery. In this case, find a charging device nearby as soon as possible to charge the vehicle.

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#### Note

- The vehicle cannot be charged if the charging port electronic lock is not activated, which can be checked by turning the charging plug slightly.
- The high voltage battery should be used under a temperature of 10°C–30°C. The service life of the high voltage battery will be shortened under too high or too low ambient temperature.
- If the vehicle is not used for a long time, the main power switch should be turned off, and the high voltage battery should be charged once every half month.

- When the vehicle is in under-voltage protection state, you should charge it in time before use. Otherwise, over-discharge of the high voltage battery may happen, affecting the performance and service life of the high voltage battery.
-

## Driving Preparation

Preparation Before Driving

Before using the vehicle, check it to ensure safety:

1. Check the connection and fastening of each part.
2. Check whether the motor and E-axle make abnormal noise during working.
3. Check the installation of the accessories.
4. Check the oil level in the E-axle and steering oil tank.
5. Check the fluid level in the windshield washer and coolant kettle.
6. Check the oil condition at each lubrication point.
7. Check whether the brake system and steering system are working properly.
8. Check whether the electrical equipment and pipelines are well connected.
9. Check tire pressure.
10. Check whether the driver's tools and on-board technical literature are complete.

## Driver Seat

Preparation Before Driving

### Function introduction

You can adjust the functions of the driver seat according to your personal needs and preferences to deliver more comfortable experience during driving.

### Operating instructions



1. Driver seat shock absorber damping adjustment handle  
Turn the handle left and right to adjust the damping effect of the driver seat shock absorber.

2. Driver seat armrest knob

Rotate the armrest knob to adjust the armrest. When rotating the armrest knob to the left, the armrest will be lowered; When rotating the armrest knob to the right, the handrail will raise.

3. Driver seat headrest

4. Driver seat belt

You can directly pull out the seat belt to use it.

5. Driver seat backrest angle adjustment handle

Lift the backrest angle adjustment handle to unlock the backrest; Gently rest your back against the backrest or slowly move away from the seat backrest to adjust the backrest angle to the angle as desired. Release the backrest angle adjustment handle, gently rest your back against the seat backrest to lock the backrest.

6. Driver seat cushion forward/backward adjustment lever

Lift and hold the lever, slide the cushion forward or backward by yourself, and release the unlock lever when arriving at a proper position to lock the cushion.



- Driver seat rotation, forward/backward adjustment, one-click unlock button

Press the button once to inflate and unlock the cylinder. You can adjust the seat forward/backward or rotate the seat by yourself; Press the button again to deflate and lock the cylinder.



1. Driver seat tilt adjustment handle  
Turn the handle up and down to change the tilt angle of the cushion, and release the tilt handle when arriving at a proper position to lock the cushion.
2. Driver seat quick lowering button  
Press the button to quickly lower the seat.
3. Driver seat air lumbar support adjustment button  
Press the upper part of the corresponding button to lift the lumbar support; Press the lower part of the corresponding button to lower the lumbar support (from left to right, the first button is for adjustment of the flank lumbar support, the

second one is for adjustment of the middle upper lumbar support, and the third one is for adjustment of the middle lower lumbar support).

4. Driver seat ventilation/heating button  
Press the upper part of the button to turn on the ventilation function of the driver seat; Press the lower part of the button to turn on the heating function of the driver seat.
5. Driver seat height adjustment button  
Press the upper part of the button to raise the driver seat; Press the lower part of the button to lower the driver seat.

## Precautions

### Warning

- Do not adjust the seat while the vehicle is in motion, otherwise it may cause the vehicle to lose control, resulting in accidents.
- Do not incline the seat backrest excessively, otherwise the seat belt will fail to provide sufficient protection effect. For example, in the event of an accident or sudden braking, the person wearing the seat belt of the over-inclined seat may get lower than the seat belt and thus injured.
- The seat shall be adjusted correctly to ensure proper depressing of the brake pedal.

- Before driving, shake the driver seat back and forth to ensure that it is locked in place, otherwise, injury may occur in the event of an accident or sudden braking.
- Before moving the seat, make sure that the seat movement area is unobstructed so as to prevent damaging items or pinching occupants.

#### **Notice**

- Please check that no other objects are getting stuck in the seat in the cab. Otherwise, the seat may be damaged.

## Front Passenger Seat

Preparation Before Driving

### Function introduction

The front passenger seat is situated on the right side of the sleeper in the vehicle. You can uncover the headrest of the sleeper and adjust the backrest of the front passenger seat in vertical position to sit in the front passenger seat.

## Operating instructions



To use the headrest of the front passenger seat, you should lift the headrest up and move it to the highest position; When you do not need to use the front passenger seat headrest, press down on the headrest to move it downward. The headrest is available for use only in the highest position.

To put away the front passenger seat, you can pull the unlock webbing behind the seat backrest to unlock the seat backrest, and fold the backrest.

## Precautions

### Notice

- When adjusting the headrest of the front passenger seat upwards, stop lifting the headrest forcefully if you feel that the headrest cannot move any more, so as not to damage the headrest mechanism.
- When folding the backrest of the front passenger seat, make sure that there are no items on the seat so as to avoid damage to the front passenger seat mechanism when folding the backrest.

### Note

The front passenger seat is fixed and cannot be adjusted forward and backward.

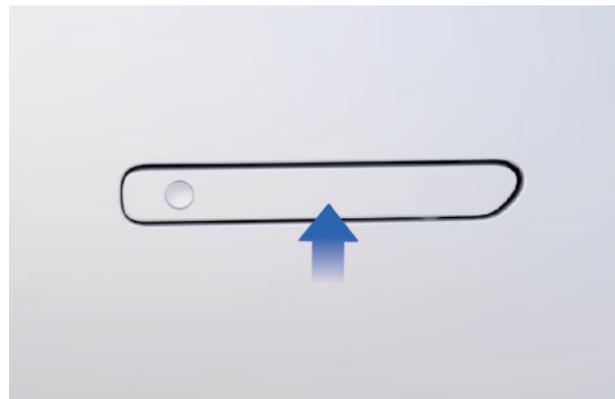
## NFC Tag

Preparation Before Driving

### Function introduction

The vehicle is designed with a NFC tag, which allows you to unlock, lock, power on and power off the vehicle.

### Operating instructions



Swipe the NFC tag in the middle of the surface of the flush door handle, then the door handle lamp will be illuminated, and the vehicle turn signal lamps will flash once simultaneously to indicate

successful unlocking; Swipe the NFC tag on the surface of the flush door handle again, then the door handle lamp will go out, and the vehicle turn signal lamps will flash twice simultaneously to indicate successful locking.



After the vehicle is unlocked, you can swipe the NFC tag on the designated swiping position of the right instrument panel to power on the vehicle.

To power off the vehicle, you can either click "Power Off" on the vehicle information screen or swipe the NFC tag on the designated swiping position of the right instrument panel.

## Precautions

### Notice

- Do not bend, twist, or cut the NFC tag.
- Do not place NFC tag in high temperature, damp or strongly vibrating areas.
- Do not place the NFC tag on any household wireless charging device to avoid damage.
- Do not put the NFC tag in the phone case to avoid damaging the NFC tag when it comes into contact with the wireless charging device.
- Do not expose the NFC tag in the vehicle to avoid the deformation and failure of the NFC tag.
- Do not use the same type of card (bank card, transportation card, ID card or access cards, etc.) together with the NFC card (overlapping, swiping at the same time, etc.).

### Note

- When unlocking/locking the vehicle with NFC tag, you should keep the vehicle stationary and swipe the NFC tag on the surface of the flush door handle.

- After swiping the NFC tag, you should take the NFC tag away from the designated swiping position in time to prevent repeated triggering of the swiping action.
  - If the surface of the flush door handle is contaminated by dirt or frost, the sensing effect of the NFC tag may be effected, resulting in failure to unlock/lock the vehicle.
  - If any NFC tag is lost or additional tags need to be ordered, please contact Windrose service hotline.
- 

## Mechanical Key

Preparation Before Driving

### Function introduction

If the vehicle cannot be unlocked using digital key and NFC tag under certain special circumstances, you can use the mechanical key to unlock the vehicle in an emergency.

### Operating instructions



1. When you press the front end of the flush door handle, the rear end of the flush door handle will tilt. And, at this time, you can pull out the flush door handle of the vehicle as a whole and hold with your fingers.
2. Insert the mechanical key into the door keyhole below the flush door handle and rotate the mechanical key to the right to unlock the vehicle.

## Precautions

### Notice

- When pulling the flush door handle, keep at horizontal position to prevent the interference between the front end of the flush door handle and the door from damaging to the vehicle paint.
- Please keep the mechanical key properly to avoid losing the key which will lead to failure in unlocking the vehicle in an emergency.

## Adjustment of Steering Wheel

Preparation Before Driving

### Function introduction

The steering wheel can be adjusted forward, backward, up and down to suit your driving needs.

## Operating instructions



1. Pull up the steering wheel adjustment handle to unlock the steering wheel.
2. Manually adjust the steering wheel height and distance to your body according to your needs.
3. After the adjustment is completed, push down the steering wheel adjustment handle to lock the steering wheel.

## Precautions

### ⚠ Warning

- Never adjust the steering wheel while driving to avoid accidents.
- After adjusting the steering wheel position, make sure that the steering wheel is locked, otherwise it will cause personal injury or death and property damage.

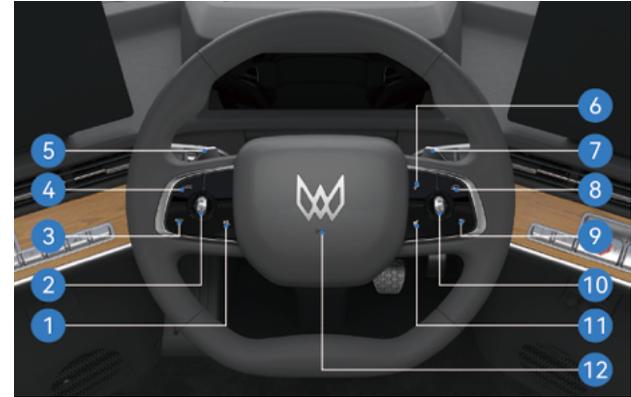
## Buttons on Steering Wheel

Preparation Before Driving

### Function introduction

The vehicle is equipped with a multi-function steering wheel, allowing you to easily control certain functions in the vehicle.

## Operating instructions



1. Inside voice wake-up  
Press once to wake up the in-vehicle voice; Press again to turn off this function.
2. Confirmation, distance and speed adjustment button  
Turn the scroll wheel to the left to reduce the following distance in cruise state; Turn the scroll wheel to the right to increase the following distance in cruise state.

Turn the scroll wheel upwards to increase the vehicle speed in cruise state; Turn the scroll wheel downward to reduce the vehicle speed in cruise state.

Press the middle of the scroll wheel to determine the selected target.

**3.** Activation of adaptive cruise control (ACC) function

Press once to activate ACC function; Press again to turn off ACC function.

**4.** Activation of lane centering control (LCC)\*

Press once to activate LCC function; Press again to turn off LCC function.

**5.** Kinetic energy recovery paddle (left)

Turn the left paddle of kinetic energy recovery system (KERS) to reduce the kinetic energy recovery intensity of the vehicle.

**6.** Bluetooth phone

Press once to answer a Bluetooth call.

Press and hold to hang up the phone or make a call.

**7.** Kinetic energy recovery paddle (right)

Turn the right paddle of kinetic energy recovery system (KERS) to increase the kinetic energy recovery intensity of the vehicle.

**8.** MODE function

Press this button to switch between radio, music, and video.

**9.** Return

Press this button to return to the previous interface of the recently operated vehicle information screen. To switch to another vehicle information screen, manually touch the corresponding vehicle information screen.

**10.** Multimedia control

Turn the scroll wheel to the left to return the selected multimedia function to previous function; Turn the scroll wheel to the right to switch the selected multimedia function to next function.

Turn the scroll wheel upward to increase the volume of the selected multimedia function; Turn the scroll wheel downward to decrease the volume of the selected multimedia function.

Press the middle of the scroll wheel to determine the selected target in the corresponding media list.

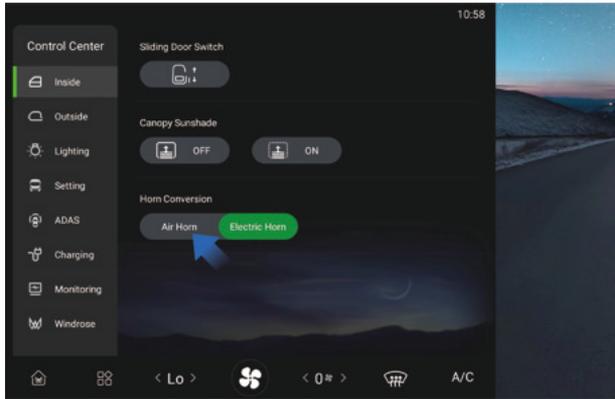
**11.** Mute

Press once to turn on the mute state; Press again to restore the sound.

**12.** Horn

Press the center area on the steering wheel to make the horn sound.





You can click "Inside" in the "Control Center" interface of the vehicle information screen to select the horn type of the vehicle.

## Precautions

### Note

Place your fingers at a suitable position to avoid the situation that the key may be inaccessible or difficult to operate.

# Overview of Instrument Cluster

Preparation Before Driving



90

1. Trip

2. Endurance mileage

3. Accumulated mileage

4. Exterior temperature

5. Driving mode

6. High voltage battery capacity

7. Current speed

8. Vehicle is ready

9. Current vehicle gear

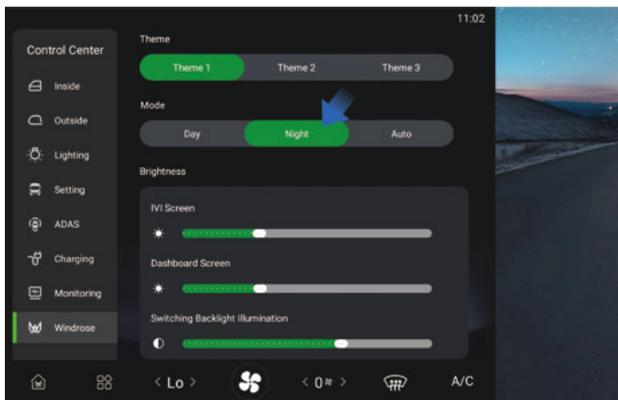
10. Energy recovery levels

11. Current power

12. Average power consumption  
per 62.137 miles

13. Instantaneous power  
consumption per 62.137  
miles





You can select "Windrose" in the "Control Center" interface of the vehicle information screen to select day, night or auto mode.

- Day mode: The base color of the instrument cluster is white;
- Night mode: The base color of the instrument cluster is black;
- Auto mode: The system automatically adjusts between day and night mode based on the outdoor light.

#### Notice

The pictures on the instrument cluster interface are all schematic diagrams for reference only. Please refer to the actual vehicle.

# Indicators and Warning Lamps

Preparation Before Driving

Icon	Name	Note
	Left turn signal lamp indicator	Left turn signal lamp ON
	Right turn signal lamp indicator	Right turn signal lamp ON
	Trailer left turn signal lamp indicator	Trailer left turn signal lamp ON
	Trailer right turn signal lamp indicator	Trailer right turn signal lamp ON
	High beam indicator	High beam ON
	Low beam indicator	Low beam ON
	Rear fog lamp indicator	Rear fog lamp ON
	Rear working indicator	Rear working lamp ON
	Position lamp (outline marker lamp) indicator	Position lamp (outline marker lamp) ON

Icon	Name	Note
	Front fog lamp indicator	Front fog lamp ON
	Driver seat belt reminder warning lamp	Driver seat belt not fastened
	Low brake pressure warning lamp	Brake pressure too low
	Low washer fluid level warning lamp	Insufficient windshield washer fluid
	Tire pressure warning lamp	Too low tire pressure
	High voltage battery SOC indicator	High voltage battery is charging
	LCC activation indicator*	LCC activated
	LCC fault warning lamp*	LCC fault
	LCC inhibition status indicator*	LCC inhibited
	Vehicle fault warning lamp	Vehicle fault

Icon	Name	Note
	Maintenance indicator	Alerts you that the vehicle needs to be serviced
	Door opening warning lamp	Door not closed
	Electric rearview mirror heating ON indicator	Electric rearview mirror heating ON
	Trailer ABS fault warning lamp	Trailer ABS fault
	Brake shoe serious wear warning lamp	Brake shoe serious wear
	ECAS fault warning lamp	ECAS fault
	Abnormal body height warning lamp	Abnormal body height
	Steering system fault warning lamp	Steering system fault
	AUTOHOLD ON indicator	AUTOHOLD ON
	Independent trailer brake indicator	Independent trailer brake condition

Icon	Name	Note
	Parking force detection indicator	Vehicle in parking force detection condition
	HSA working indicator	Vehicle in HSA condition
	High voltage battery fault warning lamp	High voltage battery fault
	High voltage battery cut-off indicator	High voltage battery cut-off
	Low high voltage battery SOC indicator	High voltage battery SOC too low
	Normal insulation fault warning lamp	Normal insulation fault
	Speeding warning lamp	The vehicle overspeeds
	High voltage battery charging connection indicator	The vehicle is connected to charging device
	Drive motor fault warning lamp	Drive motor fault
	TCU fault warning lamp	TCU fault

Icon	Name	Note
	Vehicle system fault warning lamp	Vehicle system fault
	NFC tag swiping valid indicator	NFC tag swiping succeed
	Vehicle high voltage connection indicator	The vehicle is connected with high voltage
	Vehicle ready indicator	The vehicle is ready to be driven at any time
	Drive power limited warning lamp	The drive power of the vehicle is limited
	Battery fault warning lamp	Battery fault
	High voltage battery coolant temperature too high warning lamp	High voltage battery coolant temperature too High
	Drive motor coolant temperature too high warning lamp	Drive motor coolant temperature too high
	High voltage battery overheating warning lamp	High voltage battery overheating
	High voltage battery thermal runaway warning lamp	Thermal runaway of high voltage battery

Icon	Name	Note
	Energy recovery indicator	Vehicle energy recovery
	Motor controller and motor over-temperature warning lamp	Motor controller and motor over-temperature
	EHPS fault warning lamp	EHPS fault
	Brake circuit 1 pressure too low warning lamp	Brake circuit 1 pressure too low
	Brake circuit 2 pressure too low warning lamp	Brake circuit 2 pressure too low
	Differential lock 1 indicator	Differential lock 1 ON
	Differential lock 2 indicator	Differential lock 2 ON
	Parking brake indicator	Parking brake ON
	Parking brake fault warning lamp	Parking brake fault
	EBS fault warning lamp	EBS fault

Icon	Name	Note
	EBS fault warning lamp	EBS fault
	ESC OFF indicator	ESC OFF
	ESC activation indicator	ESC activated
	ESC fault warning lamp	ESC fault
	FCW ON indicator	FCW ON
	FCW fault warning lamp	FCW fault
	ACC ON indicator	ACC ON
	ACC activation indicator	ACC activated
	ACC fault warning lamp	Adaptive cruise control (ACC) fault
	High voltage battery coolant level too low warning lamp	High voltage battery coolant level too low

Icon	Name	Note
	Motor speed too high fault warning lamp	Motor speed too high
	Tire emergency safety device connection indicator	Tire emergency safety device connected
	Electronic rearview mirror fault warning lamp	Electronic rearview mirror fault
	Coasting energy recovery ON indicator	Coasting energy recovery ON
	Vehicle brake lamp filament burnout warning lamp	Vehicle brake lamp filament burnout
	Trailer brake lamp filament burnout warning lamp	Trailer brake lamp filament burnout

### Warning

When the vehicle is powered on, some warning lamps will be illuminated for self-test and go out after a few seconds. If the warning lamp remains illuminated or gets illuminated during driving due to a fault, you should attach importance to this phenomenon and contact a Windrose authorized service station as soon as possible to avoid accidents which may lead to personal injury or property damage.

### Notice

If the warning lamp remains illuminated after the vehicle is powered on, or gets illuminated during driving, it indicates that the vehicle may be subject to a serious fault. In this case, please contact a Windrose authorized service station immediately.

### Note

The black icons in the table will change between black and white according to the background in the instrument cluster display.

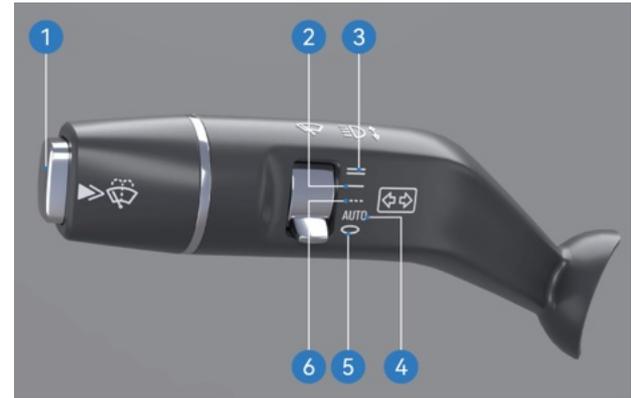
## Wiper Control

Preparation Before Driving

### Function introduction

You control the functions of wipers on the vehicle through the combination switch handle on the left side of the steering wheel.

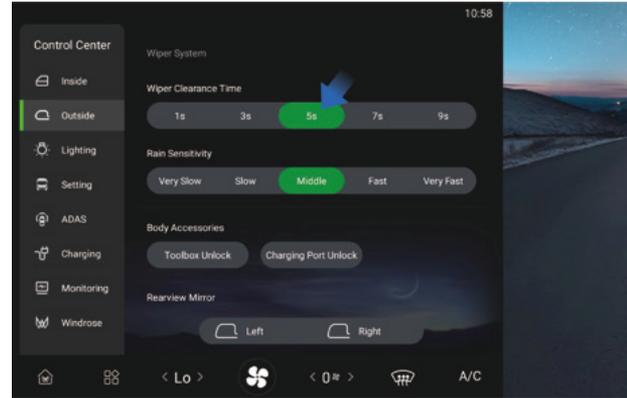
### Operating instructions



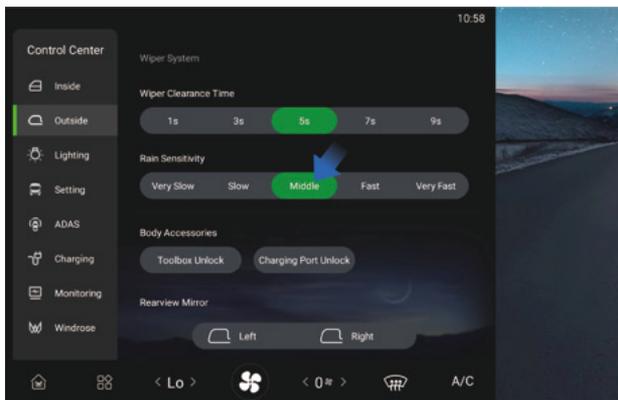
1. Windshield washing: Press and hold the windshield washing button to enter the washing mode. In this mode, the washer will keep spraying water, and the wiper will wipe continuously.

When you release the windshield washing button, the water spraying will stop immediately, and the wiper will reset after three wipes. When you press and release the windshield washing button, the washer does not spray water, and the wiper will be reset after one wipe.

2. Low-speed continuous wiping: Move the wiper blade to this position, and the wiper will enter low-speed continuous wiping mode.
3. High-speed continuous wiping: Move the wiper blade to this position, and the wiper will enter high-speed continuous wiping mode.
4. Auto wiping: Move the wiper blade to this position, and the wiper will enter auto wiping mode.
5. Wiper OFF: Move the wiper blade to this position, and the wiper will be in off mode.
6. Intermittent wiping: Move the wiper blade to this position, and the wiper will enter intermittent wiping mode, in which you can adjust the intermittent wiping frequency of the wiper in the vehicle information screen.



You can click "Outside" in the "Control Center" interface of the vehicle information screen to select the wiper intermittent wiping interval according to your needs.



When the wiper blade is moved to auto wiping position, you can also select the rain sensitivity in this interface, and the system will adjust the auto wiping frequency according to the sensitivity you selected.

## Precautions

### **Warning**

In cold season, if the washer fluid freezes on the windshield, do not use the wipers, as this may obstruct the view and cause traffic accidents or casualties.

### **Notice**

- Before using the wipers in winter, be sure to remove the ice and snow from the windshield to ensure that the wiper blades are not frozen at fixed positions.
- Do not rely solely on the automatic wipers. Always adjust the wiping manually according to the actual situation.

### **Note**

- When there are foreign objects such as dust, bird droppings, insects, and tree pulp on the windshield, please clean the windshield first, otherwise the wiper blades may be damaged.
- Wipers should be used to clean the windshield with washer liquid. Otherwise, both the wiper and the windshield may be damaged.
- Please check the wiper blades on a regular basis. If scheduled maintenance is not carried out properly, the service life of the wiper blades will be shortened.
- Please use acceptable detergent, as non-conforming detergent products may cause damage to the washer or corrosion to the glass.

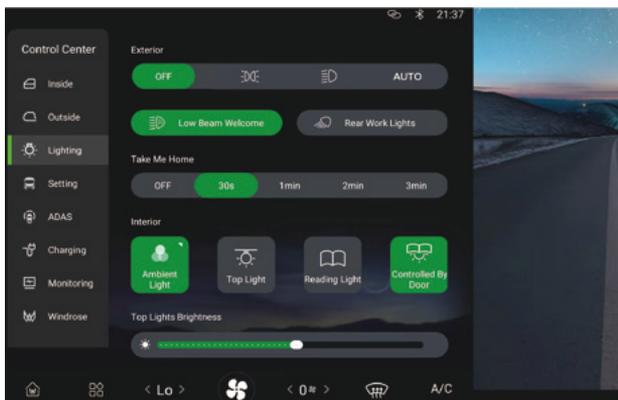
# Light Switch

Preparation Before Driving

## Function introduction

After tuning on the automatic headlamps or light switch in the vehicle information screen, you can switch between low and high beams through the light stalk on the left side of the steering wheel. Proper use of exterior lights can effectively improve the driving safety of a vehicle.

## Operating instructions



Click "Lighting" icon in the "Control Center" interface of the vehicle information screen to enter the vehicle light control interface, where you can click the position lamp (outline marker lamp), low beam or AUTO icon to activate the external lights of the vehicle. Once the exterior lights are activated, you can switch between low and high beams through the light stalk on the left side of the steering wheel.



- Move the light stalk forward to turn on the high beam.
- Move the light stalk backward to turn off the high beam.

- With the high beam not turned on, move the light stalk backwards and release, then the light stalk will automatically reset and the overtaking lamp will flash once.
- Move the light stalk downward to turn on the left turn signal lamp.
- Move the light stalk upward to turn on the right turn signal lamp.

### **Daytime running lamp**

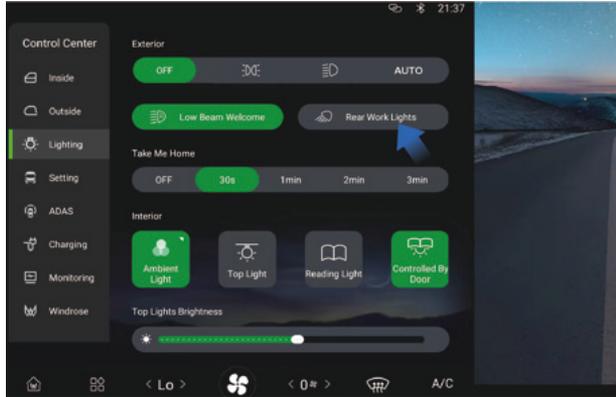
After the vehicle is started, the daytime running lamp will be automatically turned on when the low beam is turned off; When the low beam is turned on, the daytime running lamp will turn off automatically.

### **Side marker combination lamp**



Side marker combination lamps are designed on both sides of the vehicle, which will be automatically turned on when the "AUTO", "Low beam" or "Position lamp" is turned on in the light control interface of the vehicle.

## Rear working lamp



If it is necessary to turn on the rear working lamp of the vehicle in a specific situation, you can click "Rear Work Lights" switch in "Lighting" interface.

## Precautions

### Note

When operating the turn signal lamps, there is no need to activate the exterior lights in advance in the vehicle information screen.

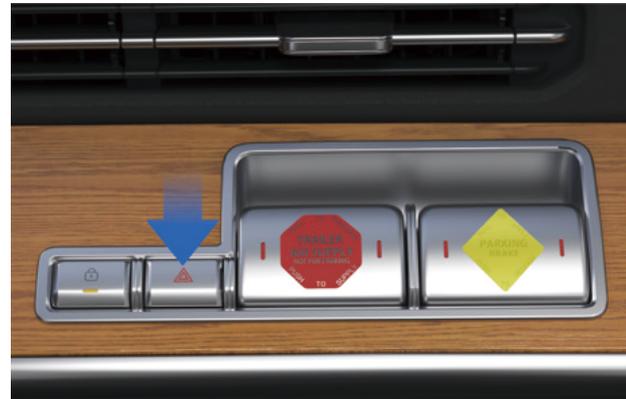
## Hazard Warning Lamp Switch

Preparation Before Driving

### Function introduction

In the case of an emergency while driving, you should immediately turn on the hazard warning lamp to alert the vehicle behind, thereby avoiding accidents.

### Operating instructions



When pressing the hazard warning lamp switch on the right side of the instrument panel in the vehicle, if the indicator on the switch

flashes, it indicates that the hazard warning lamp has been activated.

## Precautions

### Warning

The hazard warning lamp switch is used under conditions that the vehicle may cause traffic accidents or other special situations to alert passing vehicles to avoid accidents.

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# Power On/Off

Driving

## Function introduction

If you are in the vehicle, you can power on or off the vehicle through the NFC tag.

## Operating instructions

### Power on



After the vehicle is unlocked, open the door and swipe the NFC tag at the designated swiping position of the right instrument panel to

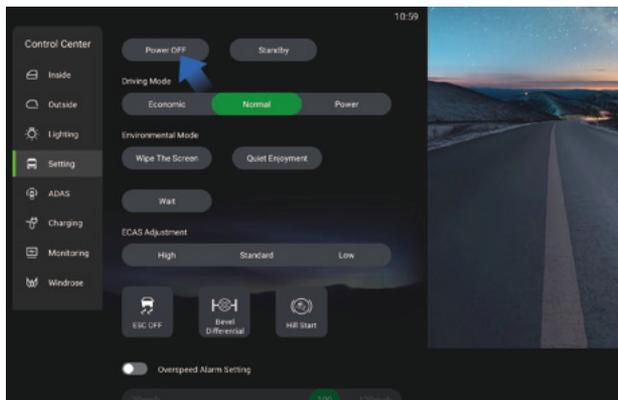
power on the vehicle, and the instrument cluster and center display will be illuminated.

### Power off

Before powering off the vehicle, make sure the vehicle is safe and stably parked. When parking on a ramp or special locations, fix the wheels using the parking wedges that come with the vehicle to avoid slipping.

When the above conditions are met, you can power off the vehicle as follows.

- Method 1:  
With the EPB turned on, swipe the NFC tag at the designated swiping position of the right instrument panel to power off the vehicle.
- Method 2:



With the EPB turned on, you can power off the vehicle by selecting "Control Center", switching to "Setting" interface, and clicking "Power OFF" button in the right IM screen.

After powering off the vehicle from inside the vehicle, the electric switch of the electric sliding door inside or outside the vehicle can still be used to open or close the electric sliding door. When the electric sliding door is locked from outside the vehicle, it means the vehicle has been successfully powered off.

## Precautions

### Note

During the vehicle power-off, you will hear a sound, which is a normal phenomenon caused by the self-test of braking system.

## Service Brake

Driving

### Function introduction

To slow down or stop the vehicle during driving, you can depress the brake pedal to reduce the vehicle speed or slow down until the vehicle comes to a complete stop.

### Operating instructions

To stop the vehicle smoothly during service braking, it is recommended to operate the brake pedal as follows in three situations:

- Deceleration: In case it is necessary to slow down during high-speed driving, first completely release the accelerator pedal to reduce the vehicle speed by the drive motor, and if the

deceleration is not as expected, depress the brake pedal appropriately;

- Stop: Gradually depress the brake pedal to reduce the vehicle speed, fully depress the brake pedal when arriving at the parking position, switch to N (neutral) gear, and turn on EPB to power off the vehicle and complete the parking operation.
- Emergency braking: In case of an emergency, depress the brake pedal with great force quickly to stop the vehicle immediately.

## Precautions

### ⚠ Warning

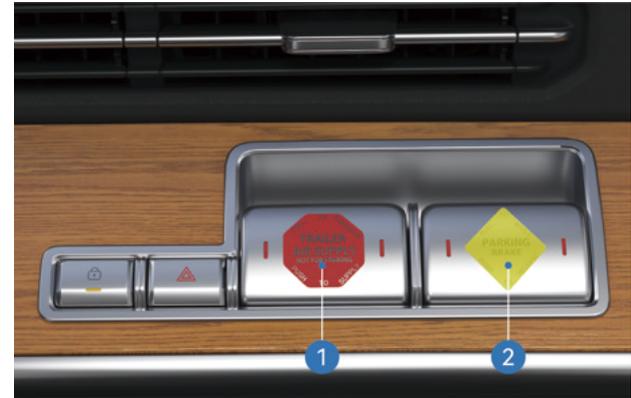
- When entering a curve, brake in advance to reduce the vehicle speed below the safe speed, and drive cautiously when braking at the curve to avoid vehicle sideslip.
- The service brake is not suitable for prolonged braking (e.g., long-term downhill driving) as this can cause safety hazards for service brake. In case continuous braking is required when driving down on a long slope, turn on the auxiliary braking for electric energy recovery.

- In rainy and snowy weather, increase the following distance appropriately to ensure driving safety.

## Electronic Parking Brake (EPB)

Driving

### Function introduction



1. Red EPB switch
2. Yellow EPB switch

## Operating instructions

### Releasing parking brake

- Release of EPB on tractor  
Providing the vehicle is in EPB mode and does not connect to a trailer, and the system self-test and the air pressure of the air reservoir are normal, depress the brake pedal, and press the yellow EPB switch, then the vehicle will release the EPB, and the EPB indicator on the instrument cluster as well as the yellow EPB switch status indicator will go out.
- Release of EPB on tractor (connected with a trailer)  
Providing the vehicle is in EPB mode and connects to a trailer, and the system self-test and the air pressure of the air reservoir are normal, depress the brake pedal, and press the red EPB switch and the yellow EPB switch in turn, then the vehicle will release the EPB, and the EPB indicator on the instrument cluster as well as the two EPB switch status indicators will all go out.
- Auto release when starting tractor  
Providing the vehicle is in EPB mode on flat roads/ramps with doors closed and does not connect to a trailer and the system self-test and the air pressure of the air reservoir are normal, start the vehicle normally, then the vehicle will release the EPB,

and the EPB indicator in the instrument cluster as well as the yellow EPB switch status indicator will go out.

- Auto release when starting tractor (connected with a trailer)  
Providing the vehicle is in EPB mode on flat roads/ramps with doors closed and connects to a trailer and the system self-test and the air pressure of the air reservoir are normal, start the vehicle normally, then the vehicle will release the EPB, and the EPB indicator in the instrument cluster as well as the two EPB switch status indicators will all go out.

#### Note

The system cannot automatically release the EPB when engaged in R (reverse) gear. In this case, please manually release the EPB and then switch to R gear.

- Low pressure release limit  
In case the air pressure of the air reservoir is too low, the vehicle will be unable to release the EPB, and the EPB indicator in the instrument cluster will remain on accompanied with text prompts.

- Forced EPB release under low pressure on tractor  
If the vehicle cannot release the EPB due to low air pressure of the air reservoir, you can depress and hold the brake pedal and press and hold the yellow EPB switch for more than 5 seconds, then the vehicle will release the EPB, and the EPB indicator in the instrument cluster as well as the yellow EPB switch status indicator will go out.
- Forced EPB release under low pressure on tractor (connected with a trailer)  
If the vehicle cannot release the EPB due to low air pressure of the air reservoir, you can depress and hold the brake pedal and press and hold the two EPB switches simultaneously for more than 5 seconds, then the vehicle will release the EPB, and the EPB indicator in the instrument cluster as well as the two EPB switch status indicators will go out.
- Child lock function  
If you do not depress the brake pedal before pressing the EPB switch, the vehicle will not be able to release the EPB, and the EPB indicator in the instrument cluster will remain on accompanied with text prompts.
- Emergency EPB release

Providing the vehicle is in EPB mode and the system self-test and the air pressure of the air reservoir are normal, power on the vehicle and quickly press the EPB switch within 10 s (5 times in total), then the vehicle will release the EPB, and the EPB indicator in the instrument cluster as well as the EPB switch status indicator will go out simultaneously.

- Towing mode of tractor  
Providing the vehicle is in EPB mode and the system self-test and the air reservoir pressure are normal, press and hold the yellow EPB switch, click the "Power OFF" button on the vehicle information screen (power-off by swiping card is prohibited), and release the EPB switch after more than 5 seconds, then the EPB system will not automatically apply the EPB after shutdown but keep the EPB released. At this time, the EPB indicator in the instrument cluster will go out, and the yellow EPB switch status indicator will flash until it goes to sleep.
- Tractor towing mode (connected with a trailer)  
Providing the vehicle is in EPB mode and the system self-test and the air reservoir pressure are normal, press and hold the two EPB switches simultaneously, click the "Power OFF" button on the vehicle information screen (power-off by swiping card is prohibited), and release the EPB switch after

more than 5 seconds, then the EPB system will not automatically apply the EPB after shutdown but keep the EPB released. At this time, the EPB indicator in the instrument cluster will go out, and the two EPB switch status indicators will flash until they go to sleep.

### Applying parking brake

- Applying parking brake

Providing the vehicle is stationary, the EPB is released and the system self-test and the air pressure of the air reservoir are normal, pull up the yellow EPB switch, then the vehicle will activate the EPB and the EPB indicator in the instrument cluster will be illuminated.

- Power-off control

Providing the vehicle is stationary, the EPB is released and the system self-test is normal, click "Power OFF" button on the right IVI screen (power-off by swiping card is prohibited), then the vehicle will activate the EPB, and the EPB indicator in the instrument cluster as well as the EPB switch status indicator will be illuminated simultaneously; The EPB indicator in the instrument cluster will go out after 10 seconds of power-off.

- Tractor emergency braking

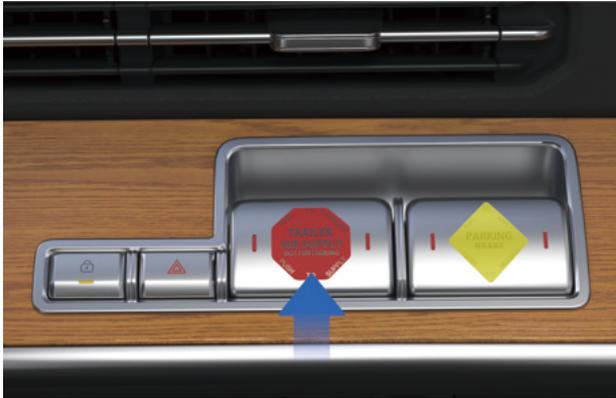
Providing the vehicle is running, the service brake system fails, and the system self-test and the air pressure of the air reservoir are normal, slowly pull up the yellow EPB switch to allow the EPB system to apply EPB. If the vehicle speed is below 5 km/h when the EPB switch is pulled up to the maximum opening, the system will activate EPB. The opening of EPB switch is proportional to the braking force. During driving, if the emergency braking is enabled, the brake lamp will be illuminated; In case the emergency brake does not lead to parking brake, the parking lamp will not get illuminated.

- Tractor emergency braking (connected with a trailer)

Providing the vehicle is running, the service brake system fails, and the system self-test and the air pressure of the air reservoir are normal, slowly pull up the two EPB switches to allow the EPB system to apply EPB. If the vehicle speed is below 5 km/h when the EPB switch is pulled up to the maximum opening, the system will activate EPB. The opening of EPB switch is proportional to the braking force. During driving, if the emergency braking is enabled, the brake lamp will be illuminated; In case the emergency brake does not lead to parking brake, the parking lamp will not get illuminated.

- Wake-up from sleep  
Providing the EPB switch indicator is off when EPB is in sleep state, pull up the EPB switch, then the EPB status indicator will be illuminated.

### Trailer independent braking



- Trailer dynamic independent braking  
Providing the vehicle is in EPB mode, the system self-test and the air pressure of the air reservoir are normal, and the vehicle speed is greater than 7km/h, slowly pull up the red EPB switch to allow the trailer to brake independently. The opening of EPB

switch is proportional to the braking force of the trailer. The trailer independent brake indicator in the instrument cluster is illuminated

### Fault prompt

- Fault prompt when parking  
The EPB indicator in the instrument cluster and the EPB switch status indicator flash.
- Fault prompt when EPB is released  
The EPB indicator in the instrument cluster is displayed in yellow and the EPB switch status indicator is flashing.

### Barometric pressure alarm

- Trailer circuit low pressure alarm  
When the air pressure of the trailer circuit is lower than 80psi, the trailer circuit low-pressure alarm lamp in the instrument cluster will be illuminated.
- Insufficient brake pressure alarm  
When the pressure of the air reservoir is lower than 60 psi, the insufficient brake pressure alarm lamp in the instrument cluster will be illuminated.

## Precautions

### Warning

- When the air pressure of the air reservoir is too low, it is better to release the parking brake after the air pressure of the air reservoir returns to normal.
- The ramp for parking should be hardened road surface with a large friction coefficient which can prevent the vehicle from rolling due to looseness or insufficient static friction.
- When parking on the ramp, parking wedges should be used, and auxiliary objects such as stones should be added in case of a steep ramp according to the specific situation so as to avoid accidental rolling.
- In the event of an emergency, the parking brake can be used as temporary service brake. But long-term application of the parking brake is prohibited.
- If the EPB system is faulty, you should contact a Windrose authorized service station in time for inspection and repair of the system.

### Notice

- Release the EPB when the pressure of the air reservoir is sufficient if not necessary.
- Before forcibly releasing the parking brake, observe the surrounding road conditions and ensure the safety of vehicles and pedestrians.
- Regularly check the air reservoir for water at least once a week; If water is found in the air reservoir, lift the drain valve rod to drain water from the air reservoir.

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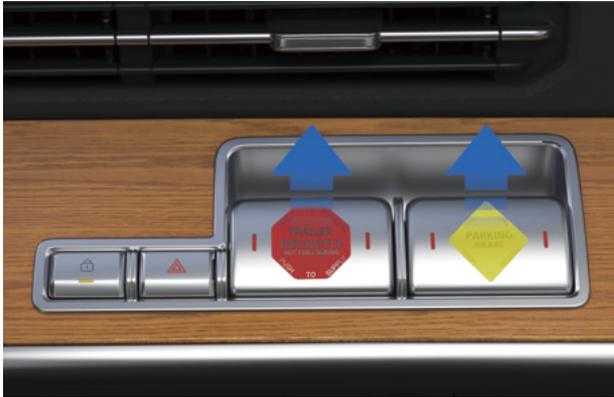
## Emergency Brake

Driving

### Function introduction

In case the service brake system fails, the EPB can be used as emergency brake.

## Operating instructions



In case of an emergency during driving, pull up the red and yellow EPB switches simultaneously to achieve emergency braking. The larger the pulling-up opening of the switch, the greater the braking force will be.

## Precautions

### Warning

- In case the service brake system fails, the EPB can be used as emergency brake.
- When the vehicle is driving at high speeds, you shall pull the parking brake handle in the form similar to "cadence braking". Do not apply the brake tightly or to the end at one time, so as to avoid damage to the brake and other related components or loss of braking performance.
- In case the service brake fails, the EPB can be used as an emergency brake. Providing the EPB is used as emergency brake, when the vehicle speed is reduced to 5 km/h, the system will directly apply the EPB and maintain at parking state, and the vehicle will not be able to automatically release the EPB when it starts. Thus, the EPB can only be released by manually operating the EPB switch.

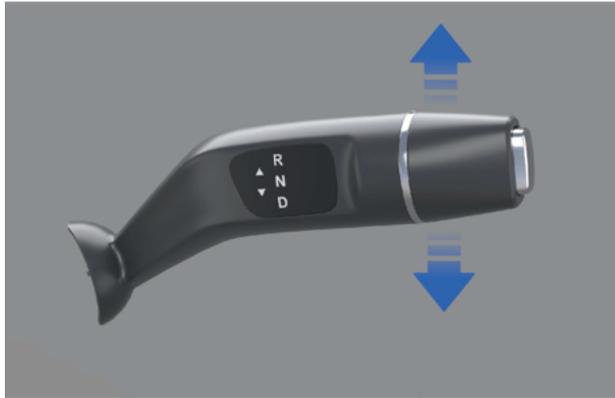
# Shift Operation

Driving

## Function introduction

You can shift gears by using the shift lever on the right side of the steering wheel.

## Operating instructions



- R (reverse) gear

When the vehicle is stationary, depress the brake pedal and push up the shift lever, then the instrument cluster will display "R" gear, indicating that the vehicle has been put into R gear.

- N (neutral) gear

The vehicle can be engaged in N gear with "N" gear indicator highlighted in the instrument cluster through the following operations:

When the shift lever is in "D" gear, push the shift lever up by 1 gear and hold for 1 second.

When the shift lever is in "R" gear, push the shift lever down by 1 gear and hold for 1 second.

When the vehicle is in EPB mode, depress the brake pedal and release the EPB.

- D (drive) gear

When the vehicle is stationary, depress the brake pedal and push down the shift lever simultaneously, and the instrument cluster will display "D" gear, indicating that the vehicle has been put into D gear.

If gear shifting fails, the instrument cluster will prompt to confirm the current gear.

## Precautions

### Notice

The vehicle must be powered off in N gear, and it is forbidden to directly power off and stop the vehicle in D or R gear.

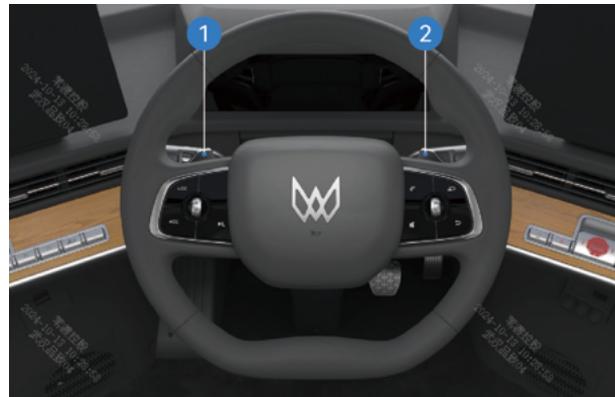
## Energy Recovery

Driving

### Function introduction

During driving, you can improve the driving experience by adjusting the energy recovery level, which can reduce the loss of brake heat, thereby improving energy consumption.

## Operating instructions



1. Kinetic energy recovery paddle (left)  
Turn the left paddle of kinetic energy recovery system (KERS) to reduce the kinetic energy recovery intensity of the vehicle during coasting.
2. Kinetic energy recovery paddle (right)  
Turn the right paddle of kinetic energy recovery system (KERS) to increase the kinetic energy recovery intensity of the vehicle during coasting.

During driving, the coasting energy is recovered when the accelerator pedal and the brake pedal are released. The braking energy will also be recovered when the brake pedal is depressed. You can adjust the energy recovery intensity during coasting through the KERS paddles on the left and right sides of the steering wheel.



The lower right corner of the instrument cluster will show the current energy recovery level (level-1, level-2, level-3, level-4 and level-5). When the energy recovery level is set to 0, the energy recovery function of the vehicle will be turned off.

## Precautions

### Notice

- The regenerative braking with energy recovery is not a substitute for braking to ensure safety. You should apply the brakes in time according to the actual situation.
- Avoid using the energy recovery function in rainy or snowy weather or on slippery roads.

### Note

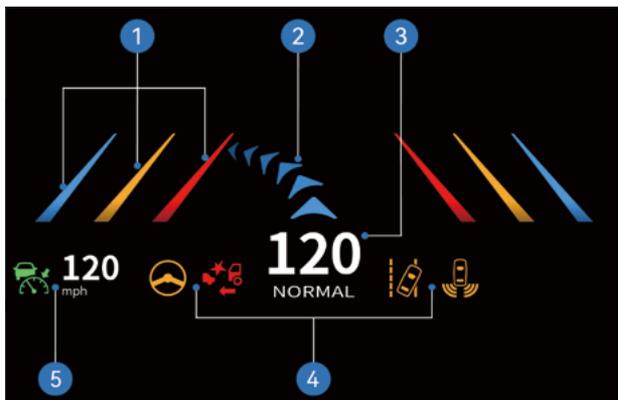
When the battery level of the vehicle drops below 95%, you can turn on and apply the energy recovery function.

## AR-HUD\*

Driving

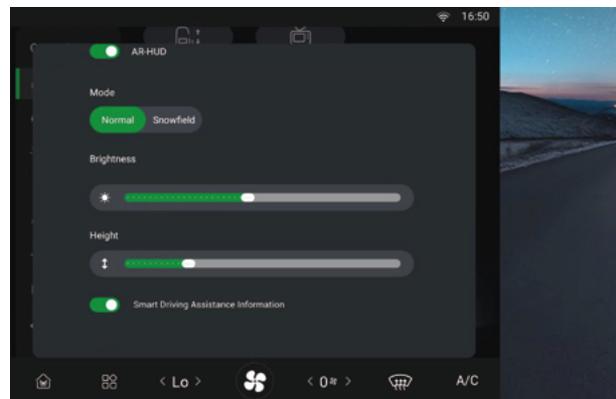
### Function introduction

The AR-HUD can project vehicle-related information onto the front windshield so that it is easier for you to obtain legible information rapidly while driving, thus improving driving safety.



1. Lane departure line prompt
2. Navigation arrow
3. Driving speed + driving mode
4. Instrument cluster warning icon
5. ACC status icon + cruise speed

## Operating instructions



You can select "Control Center", switch to "Inside" interface, and click "AR-HUD" button on the vehicle information screen to enter the interface where you can turn on/off the function, and adjust the display mode, brightness, height and display information according to your personal preferences.

## Precautions

### Warning

- Before driving, make sure to check that the position and brightness of the AR-HUD will not interfere with safe driving.

Improper adjustment of the image position or brightness may obstruct your field of vision and cause an accident, resulting in personal injury.

- Do not keep looking at the AR-HUD while driving, otherwise you may not be able to notice pedestrians and objects on the road in front of the vehicle.

#### Notice

- Do not allow liquids entering into the projector area as this may cause AR-HUD failure.
- Do not place any objects and stickers on the projector or the projection area of the windshield, otherwise the AR-HUD may not function properly to display.

#### Note

- When driving on snowy roads, adjust to snow mode to prevent the AR-HUD image from interfering with the driving vision.
- If the seat is high, your head will be in a high position and you will not be able to see the display. You can lower the AR-HUD to a suitable height.

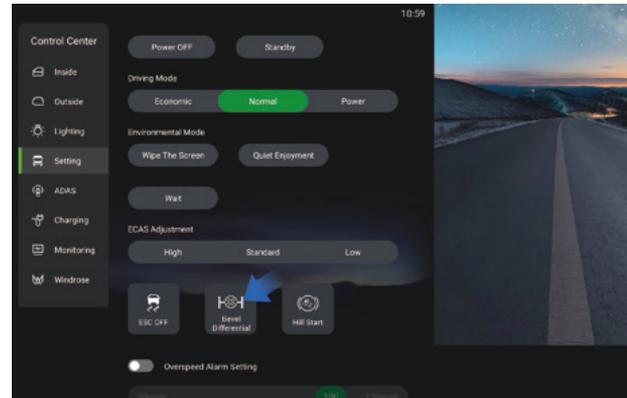
## Differential Lock

Driving

### Function introduction

When driving on muddy and slippery roads or when climbing under heavy loads, the driving wheels may slip or it may be difficult for the vehicle to drive. In this case, you can use the vehicle differential lock to improve the passability of the vehicle.

### Operating instructions



You can select "Control Center", switch to "Setting" interface, and click "Bevel Differential" button on the vehicle information screen,

then the switch will be highlighted and the differential function will be turned off; When the switch is highlighted, click the "Bevel Differential" button again, then the switch will turn gray and the differential function will be turned on.

## Precautions

### Warning

- The differential lock is only applicable to situations where the wheels are slipping or the vehicle is trying to get out of trouble. Do not run for a long time with the lock in locked state.
- The vehicle should not make turns after the differential lock is engaged. Otherwise it will cause damage to the differential and other parts.
- After the vehicle passes through poor roads, release the differential lock immediately. When the vehicle speed is  $\geq 5\text{km/h}$ , it is strictly forbidden to use the differential lock.

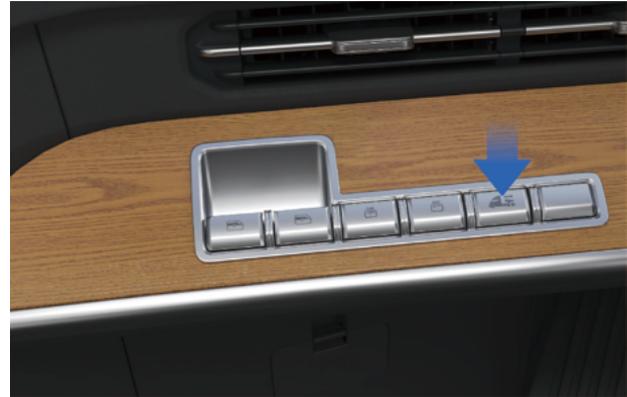
## Fifth Wheel

Driving

### Function introduction

The vehicle is designed with an electric fifth wheel switch, which allows you to unlock the fifth wheel of your vehicle using the fifth wheel slip switch in the vehicle.

### Operating instructions



1. Press the fifth wheel slip switch on the left side of the instrument panel to release the fifth wheel slip lock.

2. Manually support the trailer leg until there is slight clearance between the trailer and the fifth wheel.
3. Drive the vehicle in the direction where you want to adjust the clearance until arriving at the desired position for adjustment.
4. When arriving at the correct position, press the fifth wheel slip switch on the left side of the instrument panel again. Then the fifth wheel slip lock cylinder will deflate to push the locking slider to engage with the slide rail rack so that the fifth wheel can be re-locked.
5. If the locking slider does not completely engage with the slide rail rack, drive the vehicle forward or backward until they completely engage with each other.

## Precautions

### Warning

Be sure to check whether the fifth wheel locking slider is engaged with the slide rail rack to avoid accidents.

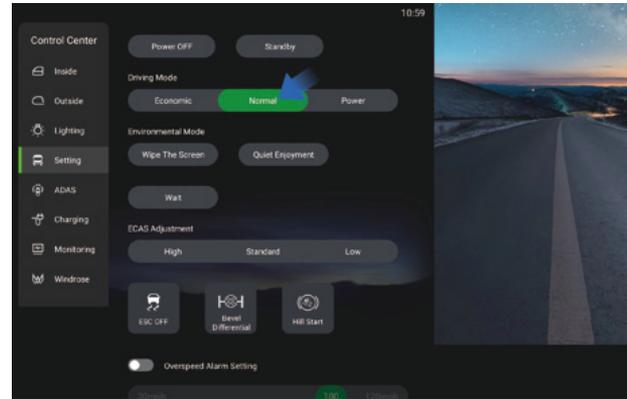
## Driving Mode

Driving

### Function introduction

This vehicle has three driving modes, which offer you the chance to choose how you want to drive. Each mode provides a different driving experience.

### Operating instructions



You can select the drive mode by selecting "Control Center" and switching to the "Setting" interface on the vehicle information screen of the instrument panel to tailor your needs.

- ECO mode

It can effectively reduce the energy demand for high voltage battery to achieve the economical driving; When the battery SOC is lower than 10%, the vehicle automatically enters the ECO mode.

- Normal mode

It can offer a good balance of power and economy, which can meet the daily needs of most drivers.

- Power mode

It can provide the designed maximum power output of the vehicle and require the drive motor to respond as quickly as possible to achieve optimal output torque and strong power performance with higher energy consumption.



# Around View Monitor (AVM)

Driving Assistance

## Function introduction

The around view monitor (AVM) uses cameras installed around the vehicle to capture images, and the AVM module stitches and synthesizes the high-definition image signals collected by the camera to achieve 2D/3D panoramic view. The part not contained by the panoramic view can be filled with the image of the rear camera.

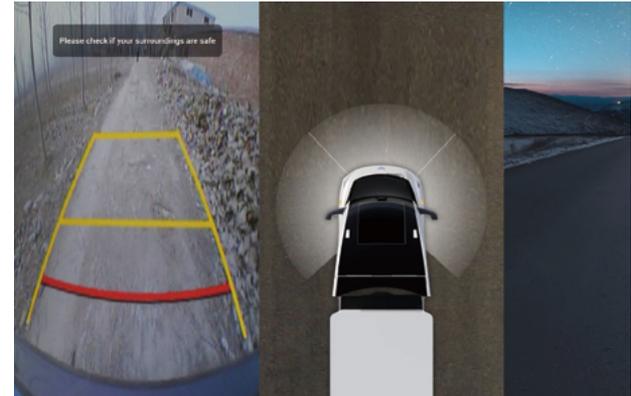
## Operating instructions



You can set and adjust the AVM function by selecting "Home" and clicking the "AVM" button on the vehicle information screen of the instrument panel.

## Parking assist (PA)

Parking assist can monitor the surrounding conditions of the vehicle when the vehicle is reversing at low speed to ensure the driving safety. During parking, the vehicle will remind you by warning sounds and images based on the distance between the obstacle and the front or rear of the vehicle.

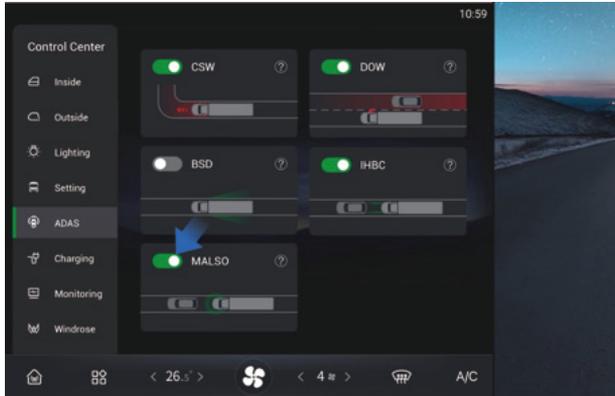


You can activate the parking assist image in the following ways:

- On the home page of the vehicle information screen, click AVM to turn on the 270° panoramic image;
- When the vehicle is engaged in R gear, the memory view (270° panoramic image) will be turned on.

### Maneuvering aid for low speed operation (MALSO)

The MALSO function can help you avoid hitting close-range obstacles in the front when driving at low speed. This vehicle is equipped with 6 forward ultrasonic radars.



You can activate/deactivate this function by selecting "Control Center", switching to "ADAS" interface, and clicking the "MALSO" button on the vehicle information screen of the instrument panel.

If an obstacle enters the detection range of the system in operation, the detection result will be displayed on the vehicle information screen, accompanied by a buzzer reminder. The closer the vehicle is to the obstacle, the more urgent the buzzer will sound. When the alarm distance is displayed in red, the buzzer will continue to sound.

### Limitations of MALSO

The MALSO may not work properly in the following situations, including but not limited to:

- The MALSO cannot detect the objects under the bumper or vehicle, or objects that are too close to or too far away from the vehicle.
- The MALSO may not detect the children, cyclists, or pets.
- The MALSO may not detect very small objects.

When the MALSO does not work properly, a text prompt will be displayed on the vehicle information screen, the MALSO switch will be set in the off position and the icon will be grayed out, indicating that the function is unavailable.

## Precautions

### Warning

- The AVM is an auxiliary function, and the driver still needs to pay attention to observe the surrounding environment during its operation.
- The distance from the person, object or obstacle to the vehicle shown on the display may be closer than the actual distance.
- Even if the vehicle is equipped with the MALSO, you should still carefully check the situation around the vehicle while driving. If you do not notice conditions ahead while driving at a low speed, the vehicle damage, personal injury or even death may occur.

### Notice

The AVM relies on the normal operation of the surround view camera. The sensor and camera function may be limited in the following situations:

- The camera is changed to a different mounting position, blocked or dirty, out of focus or faulty, etc.

- The surrounding environment is dim, such as at dawn, dusk, at night, in tunnels, buildings, scenery or shadows of large vehicles, etc.
- The brightness of the surrounding environment changes suddenly, such as entrance or exit of a tunnel.
- The camera is exposed to oblique or direct sunlight.
- In bad weather such as rain, snow, fog, haze, etc.

### Notice

In hot or humid weather conditions, the detection distance may be reduced.

## Adaptive Cruise Control (ACC)

Driving Assistance

### Function introduction

The adaptive cruise control (ACC) is a driver assistance function to improve the driver's comfort. If the road ahead is clear, the ACC will maintain the set maximum cruising speed and allow the vehicle to drive forward. If a vehicle is detected ahead, the ACC will

reduce the speed of the subject vehicle as needed to maintain the set following distance from the vehicle ahead until the appropriate cruising speed is reached.

With ACC activated, you still need to observe the road conditions ahead and control the vehicle when necessary. The ACC is mainly used for driving on dry straight roads such as highways. It is not recommended to activate the ACC when driving on city streets.

## Operating instructions



### 1. ACC ON/OFF

- Click the button to turn on the ACC, and the ACC ON indicator will be illuminated in gray on the instrument cluster. When the ACC working conditions are met, the indicator will be illuminated in green, the ACC function will be activated, and text prompt and numerical information such as cruising speed will be displayed.
- In cruise mode, click the button to turn off the ACC, the indicator will turn gray and text prompt will be displayed on the instrument cluster.

### 2. Cruise control scroll wheel

- Right: Increase the following distance.
- Left: Decrease the following distance.
- Up: Increase the vehicle speed.
- Down: Decrease the vehicle speed.

Slide the cruise control scroll wheel up or down and release it to gradually increase or decrease the target speed by  $\pm 1$ km/h; Slide the cruise control scroll wheel up or down and hold it to gradually increase or decrease the target speed by  $\pm 5$ km/h. Operate the distance button to change the following distance (five levels in total).

With ACC on, if you slide the cruise control scroll wheel down, the system will set the current vehicle speed as the cruising

speed; If the brake pedal is depressed or the cruise switch is pressed during ACC activation or the vehicle speed does not meet the ACC activation conditions , causing ACC to deactivate, the system will memorize the previously set cruising speed when the ACC is successfully activated again and the cruise control scroll wheel is moved up.

When the vehicle is powered on for the first time, the following distance defaults to level 3. In the same power-on cycle, the last set following distance level will be memorized at the time of reactivating ACC, and the default level (level 3) will be maintained when the vehicle is powered on again.

### **Description of ACC function status**

- Cruise control  
When there is no target vehicle ahead or the target vehicle speed is greater than the target cruising speed, the cruise control will keep the vehicle driving at the target cruising speed.
- Following control  
The following control function allows the vehicle to follow the vehicle ahead at the following distance set by the driver.
- Overtaking mode

With ACC activated, when the driver depresses the accelerator pedal, the ACC will enter the overtaking mode; If the driver releases the accelerator pedal within 15 minutes, the vehicle will return to the target speed.

- Driver takeover request  
In certain scenarios, the ACC is unable to keep the vehicle driving at a safe distance and it will send a signal to prompt the driver to take over the vehicle. In this case, the icon on the instrument cluster will be illuminated, and an audible alarm will be given, reminding the driver to take over the vehicle.
- Curve speed control  
The curve control logic is that when the vehicle follows the vehicle ahead or cruises at a constant speed in a curve, the ACC will control the vehicle speed based on the curve radius to keep the lateral acceleration within a comfortable range.

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### **Camera and radar recognition failure**

In the following situations, the camera recognition failure may occur, affecting ACC performance, and even causing the function deactivation with the text prompts displayed in the instrument cluster, including but not limited to:

- The camera mounting position is changed.

- The camera is obscured or dirty.
- The vehicle is driving at night.
- The surroundings are dim, such as at dawn, dusk, and night or in the tunnel.
- The brightness of the surrounding environment changes suddenly, such as entrance or exit of a tunnel.
- Large shadows caused by buildings, landscapes or large vehicles.
- The camera is exposed to direct light.
- In bad weather such as rain, snow, fog, haze, etc.
- Exhaust fumes, splashes of water, snowflakes or dust raised by the vehicles in front falling on the subject vehicle.
- The windshield in front of the camera is contaminated by water, dust, micro-scratches, oil, dirt, wiper, freezing, snow, etc.
- The vehicle is driving on a wet road.

In the following situations, the radar recognition failure may occur, affecting ACC performance, and even causing the function deactivation, including but not limited to:

- The radar is misaligned or blocked, or covered with mud, snow, metal plate, tape, label, leaves, etc.

- The radar or the surrounding area is impacted due to vehicle collision or scratching.
- Adverse weather conditions such as heavy rain, heavy snow, and heavy fog may affect the performance of radar.
- Limited by characteristics of the object identified, the sensor may issue false alarms with regard to some metal fences, green belts, cement walls, etc., in few cases.

ACC can only identify qualified vehicles. The following targets may fail to be identified and may be responded to, including but not limited to:

- Side passing vehicles.
- Oncoming vehicles.
- Bicycles, motorcycles, tricycles, etc.

The ACC cannot identify the following targets, including but not limited to:

- Person.
- Animal.
- Traffic light.
- Walls.
- Barricades
- Other non-vehicle objects.

The ACC may work or respond too late in the following situations where the target is not directly located in front, including but not limited to:

- The ACC cannot identify targets in the blind spot of the sensor. For example, the ACC cannot identify the objects in the corner and side blind spots of the vehicle. When approaching or passing a curve, it may select a wrong target or miss the target, causing the vehicle to accelerate or decelerate.
- When the vehicle is on a slope, the target may get lost or the distance from the vehicle ahead may be misjudged. When the vehicle going downhill, the ACC may increase the vehicle speed, resulting in exceeding the cruising speed.
- The ACC may not be able to recognize in time if the vehicles (especially large vehicles such as buses and trucks) in the adjacent lane cut from the front of your vehicle with only part of the vehicle body. At this time, you shall override the vehicle in time.
- The ACC may not be able to recognize the target in time if your vehicle suddenly cuts behind the vehicle in front, or if another vehicle suddenly cuts into or out of front of your vehicle. At this time, you shall override the vehicle in time.

In special or complex road conditions, it is not recommended to use ACC, as it may be affected or even deactivated, including but not limited to:

- Waterlogged, muddy, potholes, ice and snow roads, or roads with speed bumps or obstacles.
- Traffic conditions with pedestrians, bicycles, or many animals.
- Complex and changeable traffic conditions, such as busy intersections, highway ramps, and congested roads.
- Winding roads, sharp turns.
- Uphill and downhill roads.
- Bumpy roads.
- Narrow roads.
- Tunnel entrances and exits.
- Non-standard roads.
- Roads without median strips.

In the following situations, if the relative speed of the vehicle ahead is too high, the ACC may have limited controllability, resulting in failure to keep the distance in time: Including but not limited to:

- The status of the vehicle ahead changes suddenly (such as sudden turning, acceleration, deceleration, etc.).
- Other vehicles suddenly cut in or out of the subject vehicle.
- The subject vehicle suddenly cuts in behind the vehicle ahead.

- The subject vehicle is moving at high speed to a stationary or slow-moving target in front.

Sufficient braking force may not be obtained in the following situations. Including but not limited to:

- The braking function cannot work normally (such as brake parts are too cold, too hot, wet, etc.).
- The vehicle is maintained improperly (such as excessive wear of brakes or tires, abnormal tire pressure, etc.).
- The vehicle is driving on special roads (such as uphill and downhill, water flooded roads, mud, potholes, icy and snowy roads, etc.).

### Exit conditions of ACC

In any of the following situations, the ACC will be deactivated immediately:

- Any door is open;
- The driver seat belt is unfastened;
- The vehicle is not in D gear;
- The brake pedal is depressed;
- The EPB is applied;
- The vehicle is not powered on;
- The ESC is deactivated;

- The wheel speed signal is invalid;
- The vehicle speed is not within the specified speed range;
- The AEB works;
- The radar/camera is blocked;
- Other system errors have occurred.

In any of the following situations, the ACC will be gradually deactivated:

- The ESC is activated;
- The ABS activation time is greater than 2 seconds;
- The ASR is activated;
- The ACC off button is pressed.

### Precautions

#### Warning

- If you are aware of a danger while using the ACC, please take over the vehicle immediately instead of waiting for the system warning prompt.
- For stationary vehicles or objects, especially those appeared after the vehicle ahead drives away your lane, the ACC will not be able to recognize them and apply brakes or slow down. You should always pay attention to the road conditions ahead and be ready to take over the vehicle at any time. Relying

solely on ACC may cause personal injury or even death. In addition, the ACC may react to vehicles or objects that do not exist or are not in the lane you are driving, causing unnecessary or inappropriate deceleration of the vehicle.

- The ACC may not control the vehicle speed properly due to limited braking capacity and being on a slope. It may also misjudge the distance between the subject vehicle and the vehicle ahead. When the vehicle is going downhill, the ACC may increase the vehicle speed, resulting in exceeding the cruising speed (or limit speed).
- Do not rely solely on ACC to slow down the vehicle and avoid a collision, otherwise, serious personal injury or death may occur. Always observe the road conditions while driving and be ready to take over the vehicle at any time.
- The ACC is only a driver assistance function, which can not prevent all collisions. The ACC has a limited deceleration capability and cannot replace the driver in driving. It is always your responsibility to drive your car safely and to obey current laws and traffic regulations.
- The ACC can adjust the vehicle speed smoothly based on vehicle conditions and traffic conditions ahead. However, due to the limitations of the monitoring system, the system may fail

to apply brake in an emergency. When necessary, you should take the initiative to take braking actions.

- The ACC cannot be applied in all driving scenarios and traffic, weather and road conditions.
- You must intervene when the ACC fails to maintain a proper speed or distance from the vehicle ahead. It is your responsibility to determine and maintain a safe following distance at all times. Do not rely solely on ACC to maintain the distance between vehicles.
- The ACC may not respond to animals, pedestrians, specially-shaped vehicles, vehicles loaded with irregularly shaped cargo, or small vehicles (such as bicycles, tricycles, and motorcycles) or traffic signs (such as traffic cones, water-filled barriers, signboards). ACC may also not respond to slow-moving, stopped or approaching vehicles, or other stationary objects.
- The ACC may cause abnormalities such as excessive deceleration and deceleration shock due to the asynchronous response of the electronic brake system (EBS) between the trailer and the tractor. In this case, please deactivate ACC.
- Do not use the ACC in environments with poor driving conditions, such as: in the city or other heavily congested

traffic, roads with water or slush, heavy rain and snow, poor visibility, windy conditions, or driving on slopes.

- Loading too many items may cause a change in vehicle attitude, which may degrade or disable the target identification of ACC.
- When another vehicle changes lanes to the front of your vehicle, ACC may not have time to respond, requiring you to apply braking in time.
- When driving downhill on steep slopes, it may be difficult for ACC to maintain proper distance from the vehicle ahead. In these situations, be extra careful and always be ready to apply braking.
- When you are driving into and out of curves, the selection of a target may be delayed or interfered, which may cause ACC to brake unexpectedly or brake too late.
- On a sharp turning road, such as a serpentine road, the ACC may not be able to detect the vehicle ahead normally due to the limited field of view of the windshield and front radar, in which case, the vehicle may accelerate, which requires you to take over the vehicle according to the actual situation.
- At night with insufficient lighting or in a city with complex lighting, the camera may misidentify, miss, or inaccurately

identify the target, causing ACC to brake incorrectly or brake too late. You need to use the ACC function with caution, stay focused, and be ready to take over the vehicle at any time.

- If you need to cut out of the current lane or the vehicle ahead cuts out while following the vehicle ahead, the ACC may be limited in acceleration for a period of time to ensure safety. You can actively depress the accelerator pedal to take over the vehicle.

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#### **! Notice**

After the ACC is deactivated, you must override the vehicle to ensure the driving safety.

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#### **i Note**

- When the following target is changed or lost (especially during turns or lane changes), the ACC may accelerate unexpectedly.
- When the vehicles, objects or stationary targets in adjacent lanes are changed or lost (especially during turns or lane changes), the ACC may brake unexpectedly.
- The ACC is mainly suitable for driving on smooth roads. When ACC is used for driving downhill on steep slopes or with heavy

loads, it may be difficult to maintain the correct following distance from the vehicle ahead.

- The ACC can control your vehicle to accelerate and decelerate. When the vehicle is decelerating, the brake system starts to work and may make a sound, which is normal.
  - When the ACC fails, a text prompt will be displayed on the instrument cluster to remind the driver that ACC is faulty.
- 

## Vehicle Turning Sound Alert Device

Driving Assistance

This vehicle is equipped with a vehicle turning sound alert device, which can alert pedestrians and vehicles near the subject vehicle when it is driving at low speed, turning or reversing.

### Driving at low speed

- When the vehicle speed is reduced to the specified range, the vehicle turning sound alert device will be activated.
- When the vehicle is driving at low speed, the prompt sound is "ding-ding-ding".

- When the vehicle speed is 0, the system will automatically turn off the prompt sound.
- If the vehicle speed gradually increases, the prompt sound volume will gradually decrease until it is automatically turned off; If the vehicle speed gradually decreases, the prompt sound volume will gradually increase.

### Turning and reversing

- When the vehicle is turning, the prompt sound is "beep-beep-beep, attention, left/right turn". In the turning state, the prompt sound is not affected by the vehicle speed.
- When the vehicle is engaged into reverse gear (R), the reversing prompt sound "beep-beep-beep, attention reversing" will be activated.
- When you turn on the hazard warning lamps, the turning prompt sound cannot be activated.

#### Note

Prompt sound priority: Reversing prompt sound > left/right turn prompt sound > low speed driving prompt sound.

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# Automatic Emergency Braking (AEB)

Driving Assistance

## Function introduction

The automatic emergency braking (AEB) system can detect target vehicles or obstacles, predict a risk of potential forward collision, and send a warning signal and display the image on the vehicle information screen in case of a danger to remind the driver and activate the brake system of the subject vehicle to avoid or mitigate collisions by reducing speed.

### AEB function

- Safe distance alarm

In non-emergency situations, the system will remind the driver that the distance between the subject vehicle and the vehicle ahead is too small, sound the buzzer at a low frequency, and highlight the prompts in green on the simulated reality system.

- Level 1 warning

When a dangerous situation occurs, the system will remind the driver that actions should be taken to respond to the level 1

warning, sound the buzzer at a low frequency, and highlight the prompts in yellow on the simulated reality system.

- Level 2 warning

In the case of an emergency, the system will remind the driver that actions should be taken to respond to the level 2 warning, sound the buzzer at a high frequency, and highlight the prompts in red on the simulated reality system.

- Emergency brake

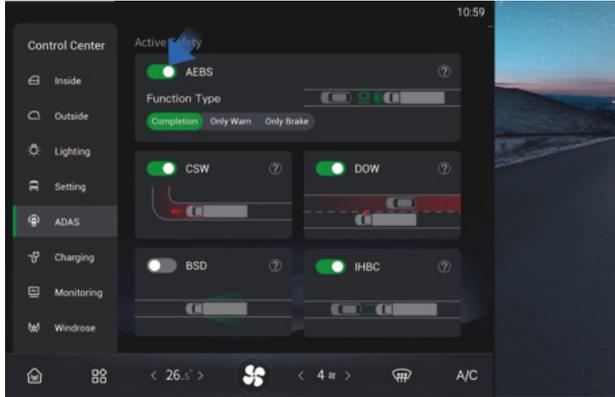
After the collision alarm is issued, if the driver still does not take measures, AEB will actively apply the brake braking force, increasing the driver's reaction time and reducing the relative speed.

- System fault

When the system fails, a text prompt will be popped out, the AEB switch in the vehicle information screen will be in the off position and the icon will be grayed out, indicating that the function is unavailable.

## Operating instructions

### AEB activation



You can activate/deactivate this function by selecting "Control Center", switching to "ADAS" interface, and clicking the "AEB" button on the vehicle information screen of the instrument panel.

The AEB is activated by default after the vehicle is powered on. When this function is deactivated manually, the system will display the corresponding text prompt on the vehicle information screen. When the AEB fails, the system will display the corresponding text prompt on the vehicle information screen, and the AEB icon will be grayed out, indicating that the function is unavailable.

### Applicable scenarios of AEB

The AEB can detect the pedestrians, two-wheeled vehicles, passenger cars, trucks, and etc., except for oncoming vehicles and crossing vehicles. If the visual detection capability is limited, the AEB will give a warning for moving targets, but will not apply brakes. (Note: When the vehicle is driving through curves, the AEB will give a warning but not apply brakes to the detected pedestrians and two-wheeled vehicles).

### Limitations of AEB

The function will be limited in the following situations:

- The AEB can assist the driver in dangerous situations, but the driver should not solely rely on the system.
- In adverse weather conditions, such as heavy rain, snow, etc., the function will be degraded, and cannot detect the target or detect the target too late.
- The AEB is running in the background under normal conditions and will not be noticed by the driver. Therefore, if the relevant targets are detected by the system, they will not be displayed.
- The AEB may be triggered by mistake due to its limitations.
- Please note that the sensor cannot detect dangerous obstacles ahead in all situations.

- Certain targets can weaken and block radar detection, such as highway guardrails, tunnel entrances, heavy rain or snowy weather, thus affecting the AEB.
- In some scenarios, only radars or cameras detect objects, and the system cannot achieve optimal performance, and such system performance degradation will not be perceived by the driver.
- The AEB is designed to detect moving targets in the same lane and direction in normal traffic conditions. When certain conditions and speed ranges are met, the AEB system can also detect stationary targets in the lane where the subject vehicle is driving.
- The system will not respond to animals, oncoming and crossing vehicles.
- For safety reasons, the implementation of the AEB function requires the support of the ESC system.
- The AEB can only respond to a target that is in the detection range of the radar sensor and has been identified. For cut-in targets, targets that are detected after the subject vehicle changes lanes, and those on sharp turns, the performance of AEB will be greatly limited.

- If the radar is affected by strong vibration or slight impact during calibration, the system performance will be reduced and the false trigger rate will be increased. Therefore, the radar needs to be checked for the installation position or to be recalibrated.
- The radar system requires special performance to detect relevant targets. When affected by the environment such as under electromagnetic interference or by the target itself, the detection will be disturbed and the system performance will be reduced.
- The radar system is installed in front of the vehicle, and no other obstacles are allowed in the field of view of the radar sensor. In the installation position, the radar will be affected by dust and snow. When the radar is completely covered by snow, the system may be turned off. In this case, the driver will be informed of relevant information through the MI interface.
- The target will not be detected until it appears in the detection range of the sensor; When the target changes lanes or cuts in too close, the system may not detect the target in front.
- Targets that cannot be clearly identified, such as motorcycles or bicycles, and vehicles with high driving positions are often detected too late or cannot be detected.

## Precautions

### Warning

- The driver is responsible for safe driving without dangerous situations.
- AEB is only a driver assistance system and cannot exempt the responsibility of the driver to drive the vehicle safely. The driver must be fully responsible for all traffic scenarios.
- Even if the traffic conditions are not very dangerous, AEB may still give alarms and apply brakes, such as power loss of vehicle ahead, overtaking, or passing through curves, so the driver must be ready to take over the vehicle at all times.
- AEB cannot avoid all accidents in all traffic scenarios.
- AEB cannot respond to oncoming vehicles, animals, and crossing vehicles.
- When the AEB system fails or the system cannot work properly, please go to a Windrose authorized service station for repair immediately. Do not modify it without authorization.
- The braking performance of AEB depends on the braking system of the vehicle.
- When the ESC/EBS MIL is on, the AEB system will not work properly. Please check and troubleshoot related faults in time.

- Do not use AEB when the vehicle is being towed, the vehicle is placed on a drum bench, the vehicle is driving on a sloped curve, or the radar camera is blocked or obscured by the deformed components.

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## Electronic Braking System (EBS)

Driving Assistance

### Function introduction

The electronic braking system (EBS), as a control system upgraded from the ABS and ESC, can reduce the response time and pressure building time of the braking system, realize the electronic brake force distribution of the vehicle and the consistency control of the tractor and trailer, shorten the braking distance and improve the overall braking performance of the vehicle. The EBS integrates functions such as ASR, HSA, and ESC.

## Precautions

### Warning

When the EBS fails, the yellow EBS MIL will be illuminated on the instrument cluster. Please contact the Windrose authorized service station as soon as possible to inspect and repair the system.

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## Electronic Brakeforce Distribution (EBD)

Driving Assistance

### Function introduction

Electronic Brakeforce Distribution (EBD) ensures good braking performance and stability of the vehicle under different load conditions by regulating the distribution of braking forces between front and rear wheels and controlling the slip of rear wheels.

## Acceleration Slip Regulation (ASR)

Driving Assistance

### Function introduction

The acceleration slip regulation (ASR) is an electronic system that monitors and controls the driving force of the driving wheels during driving on the basis of ABS. If the system detects vehicle slipping when accelerating or starting, the ASR will be activated to brake the slipping wheels so as to maintain the stability in driving direction and the starting ability of the vehicle.

## Lane Keeping Assist (LKA)\*

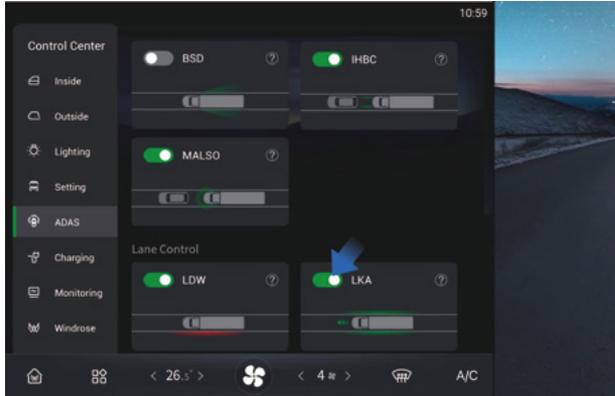
Driving Assistance

### Function introduction

The lane keeping assist (LKA) system identifies the lane lines of the lane in which the vehicle is driving through front view cameras, calculates the distance between the outer edge of the vehicle and the lane lines in real time, and offers steering assist to a certain extent when the vehicle is unconsciously deviating from the lane at

high speeds, so as to reduce the risk of the vehicle accidentally deviating from the lane.

## Operating instructions



You can activate/deactivate the function by selecting "Control Center", switching to "ADAS" interface, and clicking "LKA" button on the vehicle information screen of the instrument panel.

The LKA is enabled by default when the vehicle is powered on for the first time, and the setting status set last time will be remembered at next power-on.

## LKA working conditions

The LKA can be used on highways with clear lane lines and equivalent roads. After the LKA is turned on, if the vehicle running at 60-120 km/h deviates from the lane without turning on the turn signal lamps, and the LKA conditions are met, the LKA will provide active steering to assist the driver in moving the vehicle back into the lane.

## Precautions

### Warning

- LKA is only to assist you and it may not function properly in all driving, weather, traffic or road conditions.
- Do not use this function on urban streets, construction areas, narrow roads, or sections where cyclists or pedestrians may be present.
- LKA cannot prevent collision. It is always your responsibility to drive the vehicle safely.

### Warning

The following behaviors are prohibited during driving:

- Completely relying on the LKA.
- Use LKA in bad weather conditions.

- Use LKA on special roads.
- Hands off the steering wheel.
- Take your eyes off the road.

#### Warning

- LKA only provides steering assist to a certain extent. It cannot control the vehicle speed.
- LKA is unable to continuously control the direction of the vehicle, that is to say, it cannot keep the vehicle driving in the middle of the lane at all times.
- The LKA has limited functionality of steering assist. It gently corrects the vehicle and provides steering assist but cannot complete stop the vehicle from deviating from the lane. Never rely on LKA to control the direction. The driver should always be prepared to increase the steering force, especially when driving in curves. You should take over the steering wheel immediately when making turns or U-turns, or driving through winding roads or sharp curves.
- The LKA is a driving assistance feature that cannot deal with all traffic, weather, and road conditions. LKA is for reference only and it is not a substitute for your visual inspection. The driver must always keep an eye on the traffic and the road

environment, and decide whether or not to use LKA when it is safe to do so. In case the traffic, road or vehicle conditions are unsuitable for use of LKA, or if there are other unsafe factors, you should be prepared to take over the vehicle at any time. You always bear the ultimate responsibility of keeping the vehicle driving safely in the lane and complying with current traffic laws and regulations.

#### Note

- Enabling LKA on the CSD does not mean the function is activated. The function can be automatically activated only when the working conditions are met.
- The steering wheel turns when LKA is used to control the direction. You can take over the vehicle by turning the steering wheel, and you will be in control of the direction.
- When the vehicle deviates from the lane with the turn signal lamps turned on, the LKA will not alert or control.
- The LKA may not work when you are driving on sharp bends or narrow roads.
- During normal driving, the LKA will not intervene or give an alarm if the direction indicator lamps are switched on or the brake pedal is depressed.

- The LKA may be limited or unavailable when the ESC is malfunctioning, deactivated or intervening.
- 

## Lane Centering Control (LCC)

Driving Assistance

### Function introduction

The lane centering control (LCC) is a lateral control function of the vehicle based on the adaptive cruise control (ACC). It collects information of lane lines through front view cameras. When the conditions are satisfactory, the LCC will apply steering wheel torque in real time to assist the driver in correcting the driving trajectory and returning the vehicle to the center of the current lane.

The LCC is applied on dry highways with clear lane lines. It is prohibited to use LCC on city streets. Once LCC is activated, keep holding the steering wheel at all times and take over the vehicle if necessary.

### Activation conditions of LCC

The LCC may be canceled or unavailable in the following cases:

- The ACC is deactivated or cannot be activated.
- The brake pedal is depressed.
- The steering wheel is under manual control.
- The driving speed exceeds 120km/h.
- The lane conditions are not met.
- The vehicle shifts into another gear.
- The driver seat belt is unfastened.
- The hazard warning lamps are on.
- The electric sliding door is open.
- The radar is blocked by mud, ice, snow, etc.
- TPMS alarms.
- The wiper is in high-speed continuous wiping or low-speed continuous wiping position.
- The system is faulty or needs to be repaired.
- The road conditions are not met.

LCC is not recommended in the following cases:

- There are sharp turns, or the road is in poor conditions, such as bumpy, slippery, or icy roads.
- The road is sloping, or on uphill and downhill.
- Pedestrians or cyclists may appear on the road.
- Poor lighting conditions or poor visibility (due to heavy rain, heavy snow, dense fog, etc.).

- Bright light (headlamp light from oncoming vehicles or direct sunlight) obstructs the field of view of the camera.
- The vehicle in front is blocking the field of view of the camera.
- The windshield obstructs the field of view of the camera (with water mist, dust, or stickers, etc.).
- Lane lines are excessively worn or obscured, covered, disappearing, old and new lane lines overlap, temporary adjustment or rapid change due to road construction (e.g., lane splits, crossings, or merging).
- Objects or landscape features are cast onto the lane and leave large area of shadows.
- Texts or traffic signs are found on the road surface.
- The radar is limited.
- The camera is restricted.
- Radars or cameras are obscured (by dust, occlusion, etc.), or climatic conditions are unfavorable (e.g., heavy rain, snow, dense fog).
- The LCC performance will be affected when there is significant lateral airflow on one side of the vehicle or windy weather.

The above examples and restrictions are not exhaustive of all the conditions that affect the proper operation of LCC.

## Operating instructions

### LCC activation/deactivation



After the lane keeping assist (LKA) is activated, you can activate/deactivate the LCC function by pressing buttons on the steering wheel.

In addition, with LCC activated, you can depress the brake pedal to turn off LCC function.

If the current driving conditions do not satisfy the LCC activation conditions, the LCC function will be automatically turned off.

## Steering wheel hands-off warning

If you are not holding the steering wheel with both hands when LCC is activated, the system will continue to reduce the vehicle speed and emit hands off steering wheel alert sound simultaneously; If you are not placing your hands on the steering wheel within a certain amount of time, ACC and LCC will turn off simultaneously.

## Precautions

### Warning

- LCC is only a driving assistance function. It exactly does not mean autonomous driving, because you still need to place your hands on the steering wheel at all times when LCC is activated. This is to make sure you can take over the vehicle in time if a potential danger occurs.
  - LCC can not be applied in all traffic, weather and road conditions. Do not use LCC in bad weather (e.g., rain, snow, fog) and never use LCC on sections where pedestrians or cyclists may be present.
  - Long-time distracted driving may cause the LCC to exit.
  - LCC is designed for driving comfort and convenience, and it cannot cope with emergencies. It is always your responsibility to be vigilant, drive safely, and control the vehicle. Do not rely on the systems to respond to emergencies. You must observe the road conditions ahead and be ready to take corrective measures at any time. Failure to do so could result in serious injury or death.
- Do not use the LCC on city roads or in situations where road conditions are changeable. Do not use LCC on windy roads with sharp bends, bumpy, icy, or slippery road surfaces. LCC cannot provide stable assist control over the steering wheel on roads that are in poor conditions.
  - Occasionally LCC will assist the vehicle in steering when the assistance is not required or when you do not intend to steer. This may be caused by unclear or irregular lane lines, or by other lines or objects on the surface of the lane that resemble lane lines, and in this case you should override the vehicle in time.
  - Do not use LCC at intersections.
  - LCC may fail in case that the direction of the lane lines ahead changes sharply due to lane merging, sudden increase or decrease in lane width. You should take over the vehicle in advance when approaching similar road sections, and do not rely on the LCC to deal with these situations.

- When driving through curves, you must keep your hands on the steering wheel and take over the vehicle in time if LCC fails.
- Never use LCC at road diversions.
- If LCC is not available or is canceled, the system cannot keep the vehicle running in the middle of the current lane.
- LCC may work abnormally if a vehicle at a closer distance quickly changes its lane and cuts in front of your vehicle. In this case, the driver should take over the vehicle in time.
- LCC may exit unexpectedly at any time for unknown reasons. It is important to observe the road conditions ahead and be prepared to take appropriate measures. It is always your responsibility to control the vehicle.

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## Lane Departure Warning (LDW)

Driving Assistance

### Function introduction

When the vehicle deviates from the current lane unconsciously, the lane departure warning (LDW) will alert the driver with visual and audible alarm sounds.

### Activation conditions of LDW

LDW may be restricted or not work normally under the following circumstances, including but not limited to:

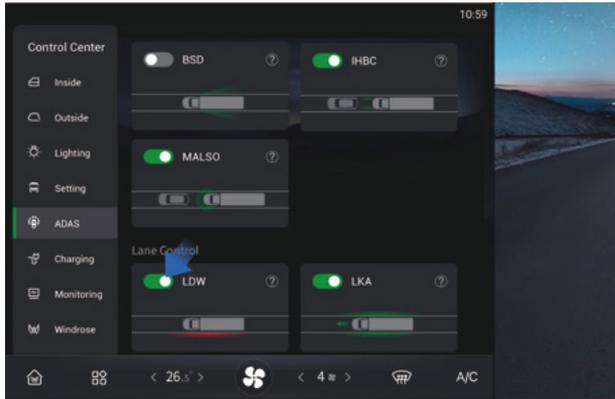
- The operating speed is outside the normal operating speed range (60-120 km/h).
- The vehicle is affected by crosswinds.
- The vehicle is driving on a slope.
- The vehicle is driving through a road with sharp curves.
- The vehicle is extremely inclined under heavy loads or abnormal tire pressure.
- The vehicle is driving on roads that can result in great amplitude of oscillatory motion in the vehicle, or on road surfaces with a large number of road joints.
- The vehicle is driving on roads without lane lines, or with unclear lane lines or disordered lane lines due to construction.
- The following distance is too close to detect the lane lines.
- The imaging capability of the camera is affected. Including but not limited to the following situations:
  - Poor visibility at night.
  - Poor visibility due to bad weather, such as heavy rain, heavy snow, fog, dust.

Bright light, backlight, water reflection, or extreme light contrast.

The camera is blocked by dirt, ice, snow, etc.

The performance of the camera deteriorates under high temperatures, extreme cold weather and other extreme weather.

## Operating instructions



You can activate/deactivate the function by selecting "Control Center", switching to "ADAS" interface, and clicking "LDW" button on the vehicle information screen of the instrument panel.

LDW is enabled by default when powered on, and you can manually disable it as needed.

## Precautions

### ⚠ Warning

- LDW is a driving assistance function, and it cannot replace your observation and judgment of traffic conditions and the driver's responsibility for safe driving.
- Do not use LDW at road forks, conjunctions, etc.
- Do not use LDW when snow chains are used in the vehicle.
- Do not use LDW when the tires are excessively worn or the tire pressure is too low.
- Do not use LDW when mixing tires of different constructions, or brands or from various manufacturers, or having diverse tread patterns.
- Do not use LDW when the vehicle is driving on construction roads (with construction signs, cone barrels, etc.).
- Do not use the LDW in poor driving conditions, such as sharp turns, steep slopes, icy and slippery roads, or in bad weather such as rain, snow, fog.

- You should maintain attention and judgment at all times, ensure that the vehicle is in its own lane, and comply with current laws and traffic regulations.
- LDW may not work properly on roads without lane lines, with multiple lane lines, worn or unclear lane lines or where the lane lines are covered by other objects.
- LDW cannot prevent collision. It is always your responsibility to drive the vehicle safely.

## Electronic Stability Control (ESC)

Driving Assistance

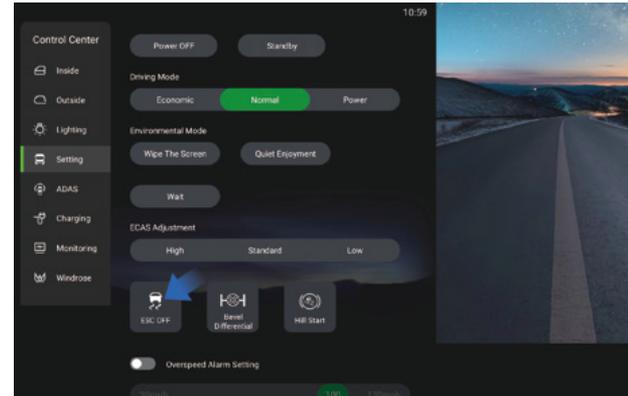
### Function introduction

The electronic stability control (ESC) is a system integrating numbers of comprehensive strategies for stability control of the vehicle. It is intended to improve the handling performance of the vehicle and prevent the vehicle from losing control when it reaches its dynamic limits. The ESC improves the safety and controllability of the vehicle.

The ESC mainly has two sub-functions:

- Direction control: When the vehicle is oversteered or understeered, the ESC brakes a single wheel to correct the driving direction of the vehicle and ensure the stability of the direction.
- Anti-rollover: When the vehicle is at risk of rollover, the ESC will reduce the motor torque or brake the vehicle to slow down the vehicle and prevent the vehicle from rolling over.

### Operating instructions



You can manually turn off the ESC by selecting "Control Center", switching to "Setting" interface, and clicking "ESC OFF" button on the vehicle information screen of the instrument panel.

After the ESC is turned off, the corresponding ESC OFF indicator will be displayed on the instrument cluster.

## Precautions

### Notice

When the ESC is faulty, the yellow ESC MIL on the instrument cluster will be illuminated. You should contact a Windrose authorized service station as soon as possible to have the system repaired.

### Note

- ESC is turned on by default when the vehicle is started. When the vehicle restarts, ESC will also be turned on automatically.
- The ESC OFF switch controls activation and deactivation of both ESC and ASR. When ESC is turned off, the ASR will also be turned off.

## Blind Spot Detection (BSD)

Driving Assistance

### Function introduction

The blind spot detection (BSD) integrates two active safety assistance functions, namely, BSD warning and lane change warning. When BSD is activated, it monitors the lanes on both sides of the vehicle and alerts when there is a risk of changing lanes. BSD warns vehicles in the blind spot, while lane change alert warns nearest fast-approaching vehicles in the left and right lanes. It will prompt through images if vehicles are detected in the warning area. It will send warnings to the electronic rearview mirror screen and the instrument cluster simultaneously on vehicle equipped with electronic rearview mirrors; It only sends warnings to the instrument cluster on vehicles equipped with physical rearview mirrors. If the turn signal lamp at the corresponding side is turned on at this time, the system will send audible warnings in addition to image warnings to reduce the risk of collision.

### Turn assist

- Level 1 warning  
When the vehicle speed is below 30km/h, the system will enable auxiliary detection of turn and radius difference

between inner wheels. To be specific, when targets are detected in the blind spot, the system will issue a level 1 warning, a yellow blind spot icon will be displayed in the vehicle information screen, and the BSD warning lamp will remain on in the electronic rearview mirror screen.

- Level 2 warning

When the vehicle speed is below 30km/h, the system will enable auxiliary detection of turn and radius difference between inner wheels. To be specific, when targets are detected in the blind spot and the driver turns on the turn signal lamps, the system will issue a level 2 warning, the buzzer will alarm, a red blind spot icon will be displayed in the vehicle information screen, and the BSD warning lamp will flash in the electronic rearview mirror screen.

## BSD warning

- Level 1 warning

When a target vehicle is detected in the area monitored by BSD and the driver does not turn on the turn signal lamps, the level 1 warning will be triggered, a yellow blind spot icon will be displayed in the vehicle information screen, and the BSD

warning lamp will remain on in the electronic rearview mirror screen.

- Level 2 warning

When a target vehicle is detected in the area monitored by BSD and the driver turns on the turn signal lamps, the level 2 warning will be triggered, the buzzer will sound, a red blind spot icon will be displayed in the vehicle information screen, and the BSD warning lamp will flash in the electronic rearview mirror screen.

## LCA warning

- Level 1 warning

When a target vehicle is detected in the area monitored by LCA (if activated) and the driver does not turn on the turn signal lamps, the level 1 warning will be triggered, a yellow blind spot icon will be displayed in the vehicle information screen, and the BSD warning lamp will remain on in the electronic rearview mirror screen.

- Level 2 warning

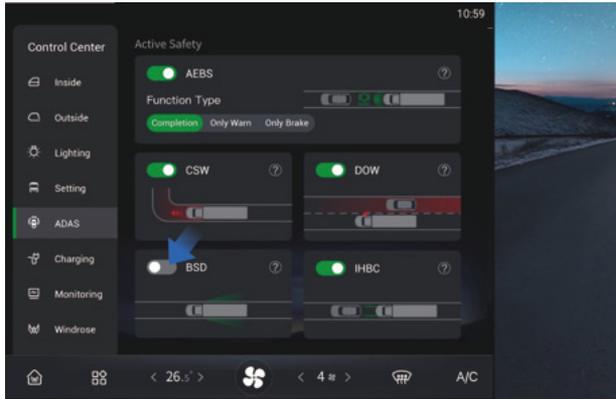
When a target vehicle is detected in the area monitored by LCA (if activated) and the driver turns on the turn signal lamps, the level 2 warning will be triggered, the buzzer will sound, a

red blind spot icon will be displayed in the vehicle information screen, and the BSD warning lamp will flash in the electronic rearview mirror screen.

### BSD fault warning

When the system fails, a pop-up window will appear once, and the function switch in the setting interface of the IHU control screen will be tuned off and grayed out, prompting the user that the function is unavailable.

### Operating instructions



You can activate/deactivate the function by selecting "Control Center", switching to "ADAS" interface, and clicking "BSD" button on the vehicle information screen of the instrument panel.

### Limitations of BSD

The BSD may not detect the target or work well in any of the following cases, and it is recommended that you do not rely too much on the BSD:

- Adverse weather such as snow, fog, etc. that affects the system and prevents the target from being detected.
- Change lanes directly without switching on the turn signal lamp.
- The target is small or moving slowly or stationary.
- The vehicle is making a sharp turn or in an open area.
- The target vehicle is approaching very quickly or very slowly.
- There is a system fault (camera, radar, brake, steering, etc.)

### Precautions

#### **Warning**

- BSD is a driving assistance function, and it cannot replace your observation and judgment of traffic conditions and the driver's responsibility for safe driving.

- Do not rely too much on the BSD, and it is forbidden to test the triggering of the function intentionally or wait for the function to be triggered intentionally. Due to the inherent limitations of system performance, false triggering and missed triggering cannot be completely avoided.
- 

## Door Open Warning (DOW)

Driving Assistance

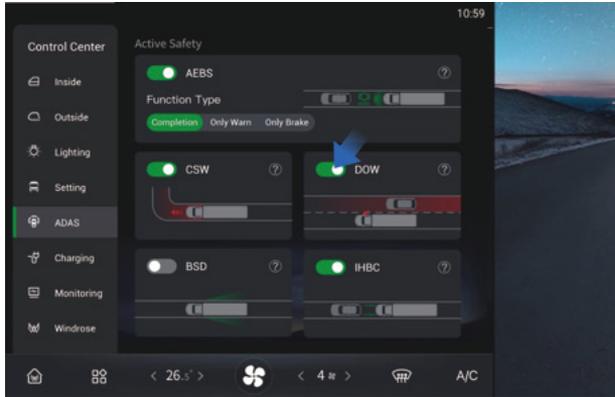
### Function introduction

When the vehicle is stationary, the door opening warning (DOW) will detect the moving targets approaching from behind and the sides. In case of a potential risk of collision when the door is opened, the system will display a warning message in the electronic rearview mirror screen in the vehicle. If the electric sliding door is opened at this time, the system will send audible warnings in addition to image warnings to reduce the risk of collision. Warnings are sent only for the corresponding door on single-door vehicles.

### Warning function

- Level 1 warning  
When a target vehicle is detected in the right monitoring area and the electric sliding door is closed, level 1 warning will be triggered, and the BSD warning lamp will remain on in the electronic rearview mirror screen in the vehicle.
- Level 2 warning  
When a target vehicle is detected in the right monitoring area and the electric sliding door is closed, level 2 warning will be triggered, the buzzer will alarm, and the BSD warning lamp will flash in the electronic rearview mirror screen in the vehicle.
- DOW fault  
When the system fails to be turned on, a pop-up window will appear on the IHU control screen, and the DOW button will be grayed out as a whole, prompting the user that the function is unavailable.

## Operating instructions



You can activate/deactivate the function by selecting "Control Center", switching to "ADAS" interface, and click "DOW" button on the vehicle information screen of the instrument panel. When the function is turned off, the system will shut down.

### Limitations of DOW

The DOW may be restricted or not work normally under the following circumstances, including but not limited to:

- DOW does not alarm against oncoming vehicles.

- The triggering of the function may delay when encountering fast-approaching target vehicles.
- The triggering of the function may delay or the function will not be triggered in case of smaller targets such as pedestrians, bicycles, and motorcycles.
- Poor visibility at night.
- Poor visibility due to bad weather, such as heavy rain, heavy snow, fog, dust.
- Bright light, backlight, water reflection, extreme light contrast, or rapid changes in brightness (such as entering and exiting tunnels, etc.).
- The detection range of the camera is blocked by dirt, ice, snow, or other objects.
- The performance of the camera deteriorates under high temperatures, extreme cold weather and other extreme weather.

### Precautions

#### Warning

DOW cannot work in all situations, and it cannot replace the visual observation of the driver and passengers. The most effective measure for ensuring personal safety of the driver and passengers

is to check the surrounding environment before opening the door and getting out of the vehicle.

#### Note

The DOW is turned on by default when the vehicle is powered on for the first time, and the system will memorize the status of the switch set last time.

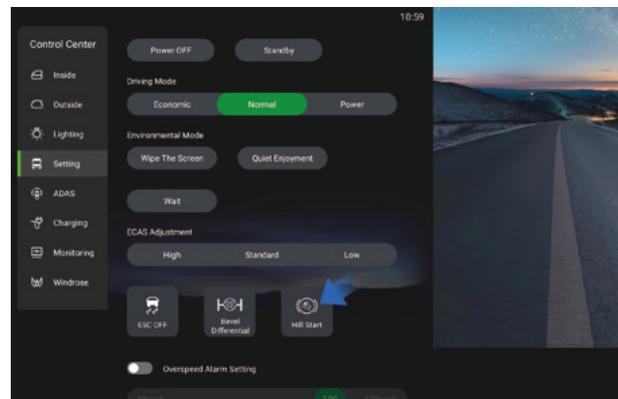
## Hill Start Assist (HSA)

Driving Assistance

### Function introduction

The hill start assist (HSA) helps you prevent the vehicle from moving backward when starting on a slope. The HSA will keep the vehicle stationary on a slope for a short time after the brake pedal is released.

## Operating instructions



You can activate/deactivate the function by selecting "Control Center", switching to "Setting" interface, and clicking "Hill Start" button on the vehicle information screen of the instrument panel.

When the vehicle is going to start on the ramp, first depress the brake pedal, release the parking brake, and then press the HSA button in the IHU control screen to activate the HSA function. At this time, the HSA indicator on the instrument cluster will be illuminated, and the driver should start the vehicle within 3S. Before the HSA is deactivated, the HSA indicator on the instrument cluster will flash rapidly.

## Precautions

### ⚠ Warning

- The HSA is not a substitute for EPB. When you are going to leave the vehicle, be sure to depress the brake pedal and enable the EPB.
- If the vehicle starts to slip backward, the brake pedal should be depressed immediately. The HSA cannot prevent the vehicle from rolling backwards on a steep slope under full load or on special roads.
- It is forbidden to depress the brake pedal and the accelerator pedal simultaneously when starting on a slope.

### 📌 Note

- It is recommended to turn off the HSA immediately after the vehicle starts; If continuous start is required, turn off the HSA after continuous hill start is completed.
- It is recommended to turn off the HSA when driving on level roads.
- The HSA is turned off by default when the vehicle is started.

## Steering Wheel Tire Emergency Safety Device (TESD)

Driving Assistance

### Function introduction

The tire emergency safety device is a passive safety device that can effectively prevent the wheel hub from contacting the ground at the moment of a tire blowout, so that the steering force and braking force of the vehicle can still be controlled to ensure the safety of personnel and vehicles at the first time.

### Precautions

#### 📌 Note

- When the removed tire emergency safety device is refitted, it is necessary to check whether the device is damaged. Only when it is confirmed that there is no damage can the device be used again, but the bolts and nuts must be replaced with new ones. If damaged, a new tire emergency safety device needs to be installed.

- When replacing tires, the operator need to remove the tire emergency safety device first, next remove the tire, install the new tire, and then refit the tire emergency safety device.

## Curve Speed Warning (CSW)

Driving Assistance

### Function introduction

Curve speed warning (CSW) can identify the curvature of the road ahead through the front view cameras. The system calculates the curve speed limit with information including the road curvature, the weight of the vehicle, etc., and sends an audible and visual warning message when the driving speed exceeds the safe speed when driving through the curve.

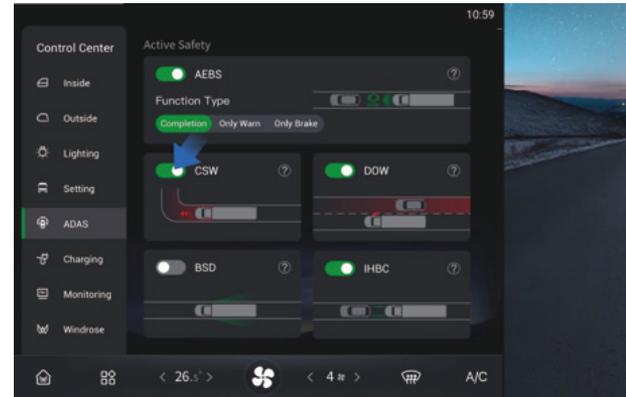
- Speed sign identification function

When the vehicle enters a curve, the recognized speed limit will be displayed in the instrument cluster, and the icon disappears when the vehicle exits the curve.

- Intelligent speed limit alert

When the vehicle enters a curve with a speed greater than or equal to the curve speed limit, the icon in the instrument cluster will flash accompanied by an audible reminder, and the buzzer will alarm.

### Operating instructions



You can activate/deactivate the function by selecting "Control Center", switching to "ADAS" interface, and clicking "CSW" button on the vehicle information screen of the instrument panel.

The CSW function is enabled by default, and the last CSW status will be remembered every time of power-on.

## Precautions

### Notice

- The speed limit information is for reference only. Please refer to the information on the actual road and drive the vehicle safely.
- CSW is a driving assistance system. It never takes any braking measures to control the vehicle, and it cannot operate on behalf of the driver. The driver should control the vehicle in time upon receiving safety warning information.
- When the CSW fails, the system will remind the driver through the instrument. In this case, please contact a Windrose authorized service station in time for inspection and repair of the system.

## Electro-Hydraulic Power Steering (EHPS)

Driving Assistance

### Function introduction

The electro-hydraulic power steering (EHPS) realizes steering assistance and intelligent driving assistance by controlling the hydraulic power output of power motor.

For steering, the system will provide steering assistance to enhance the controllability and stability of the vehicle and make steering easier.

- Active steering alignment

After steering, the EHPS will calculate the angle and speed of active steering alignment according to the steering angle and the vehicle speed at that time, to realize the active alignment of steering wheel.

- Speed-dependent power assist

When the vehicle turns at high speed, the opposite direction force is appropriately increased linearly; When the vehicle turns at low speed, the same direction force is appropriately increased linearly to adjust your steering feel and provide speed-dependent assistance.

- Hands-off detection (HOD)

The EHPS system can determine whether you have taken your hands off the steering wheel based on the steering wheel torque.

## Precautions

### Warning

- When the EHPS system fails, please contact a Windrose authorized service station in time to check and repair the system.
- EHPS is only a driver assistance function and cannot replace your steering wheel control. During driving, you are always responsible for controlling the steering wheel to steer.

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# Intelligent High Beam Control (IHBC)

Driving Assistance

## Function introduction

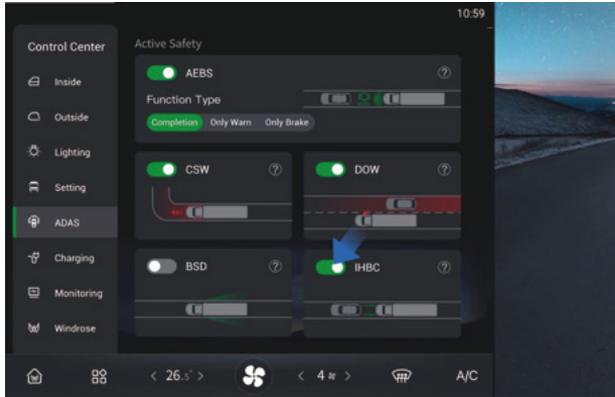
The intelligent high beam control (IHBC) is a driver assistance function, which can automatically switch between high and low

beam according to the current light source and object conditions. It is often used at night to reduce the driver's effort and the risk of traffic accidents. When the camera detects that the light source brightness is too low and there is no target object, the IHBC will switch to high beam; When the camera detects target objects such as vehicles, motorcycles, pedestrians, etc. or the light source brightness increases in high beam mode, the system will switch back to low beam.

When the IHBC is activated, the corresponding indicator on the instrument cluster will be illuminated.

- IHBC ON: The blue indicator on the instrument cluster will be illuminated.
- IHBC OFF: The blue indicator on the instrument cluster will go out.
- IHBC standby or function disabled: The gray indicator on the instrument cluster will be illuminated.
- IHBC fault: The vehicle information screen will display a text prompt, and the IHBC switch on the vehicle information screen will be in the off state, and the icon will be grayed out, indicating that the function is unavailable.

## Operating instructions



You can activate/deactivate this function by selecting "Control Center", switching to "ADAS" interface, and clicking the "IHBC" button on the vehicle information screen of the instrument panel.

The IHBC is turned on by default when the vehicle is powered on for the first time, and the on/off status during the last power-on will be memorized when vehicle is powered on next time.

### Recommended application scenario

With IHBC activated, the system will turn on the high beam if all the following conditions are met:

- The vehicle speed is 60-120 km/h;
- No oncoming vehicles or other light sources are detected.

The system will turn on the low beam when any of the following conditions is met:

- An oncoming vehicle with headlamps on and a light source is detected.
- A vehicle or trailer with a light source in front is detected.
- An oncoming bicycle with a light source that meets the requirements is detected.

### Limitations of IHBC

- In adverse weather conditions such as dense fog, heavy rain, and heavy snow, the IHBC function may be temporarily unavailable. Under suitable conditions, the IHBC will provide you with optimal illumination, but you are always required to manually switch between high and low beams if necessary.
- IHBC only assist the driver in lighting control and the driver's operation will always take priority.
- It is recommended to use the IHBC when driving on highways or elevated roads with good road conditions, but the driver still needs to maintain light control, make judgments based on the actual road conditions, and switch light modes.

## Precautions

### ⚠ Warning

- The IHBC is only a driver assistance function and does not work in all driving situations or traffic, weather and road conditions. You shall at all times be ultimately responsible for ensuring the driving safety of the vehicle, and abide by applicable laws and road traffic rules.
- The IHBC may be affected by the adverse weather conditions such as heavy rain, heavy snow, heavy fog, or when the camera is blocked. Please drive with caution.

## Active Grille Shutter (AGS)

Driving Assistance

### Function introduction



The active grille shutter (AGS) is located under the front bumper of the vehicle, which can automatically open and close the intake grille according to the temperature of the electric drive system and the driving condition of the vehicle. When the vehicle is driving at high speeds, the opening and closing of the intake grille can be automatically adjusted to improve the aerodynamic performance of the vehicle and reduce the air resistance, thereby reducing the

energy consumption of the vehicle and extending the endurance mileage.

## Precautions

### Note

After the vehicle is powered on, the vehicle will perform self-test and open and close the intake grille once.

## Electronic-Controlled Air Suspension (ECAS)

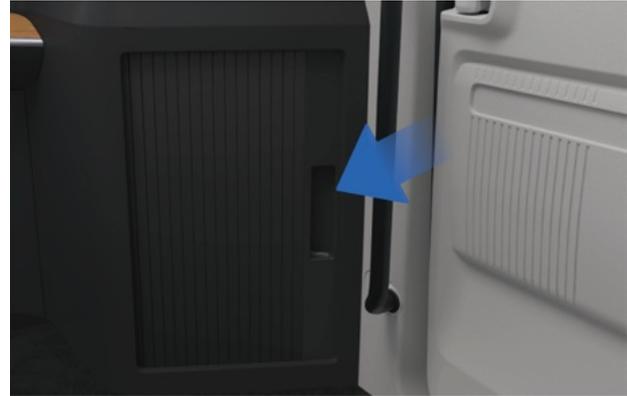
Driving Assistance

### Function introduction

The electronically controlled air suspension (ECAS) drives the solenoid valve in the control mechanism by collecting the height of the frame and the axle, airbag pressure, vehicle speed signal, braking signal and operation switch signal, to realize the inflation and deflation of the airbag, thereby achieving the raising and lowering of the suspension.

## Instructions for operation of remote control

The remote control is indispensable to ECAS on the truck. It integrates commonly used raising and lowering buttons of ECAS for manual raising and lowering of the front and rear axles, restoration of normal height, and memory height control.



The remote control is fixed in the storage cabinet under the right instrument panel and it can be taken out for use.

The remote control button is a self-resetting, inching button, and when using the button, you should select the target position (front/rear axle), then the corresponding indicator will be illuminated, and the target airbag will be lifted and lowered.



**1. Rear axle indicator**

- When the rear axle is selected, the rear axle indicator will be illuminated and you can operate the rear axle.

**2. Rear axle selection button**

- After pressing this button and selecting the rear axle, the rear axle indicator will be illuminated.

**3. Lifting axle indicator**

- When the lifting axle is selected, the lifting axle indicator will be illuminated and you can operate the lifting axle.

**4. Lifting axle selection button**

- After pressing this button and selecting the lifting axle, the lifting axle indicator will be illuminated.

**5. Reset button**

- When selecting the axle, the indicator will be illuminated. When you press the button at this time, the selected axle will return to normal height.

**6. Stop button**

- After pressing this button, any raising and lowering of the vehicle that is in progress will be stopped.

**7. Memory height M2**

- Activation of memory height M2: After selecting the front/rear axle, press this button to automatically adjust the current axle height to memory height M2.
- Storage of memory height M2: Select the front/rear axle, adjust the axle position to the height to be memorized, press and hold the stop button without releasing it, press this button simultaneously, hold it and release after 2 seconds.

**8. Lowering button**

- Press this button to lower the axle.

**9. Raising button**

- Press this button to raise the axle.

## 10. Memory height M1

- Activation of memory height M1: After selecting the front/rear axle, press this button to automatically adjust the current axle height to memory height M1.
- Storage of memory height M1: Select the front/rear axle, adjust the axle position to the height to be memorized, press and hold the stop button without releasing it, press this button simultaneously, hold it and release after 2 seconds.

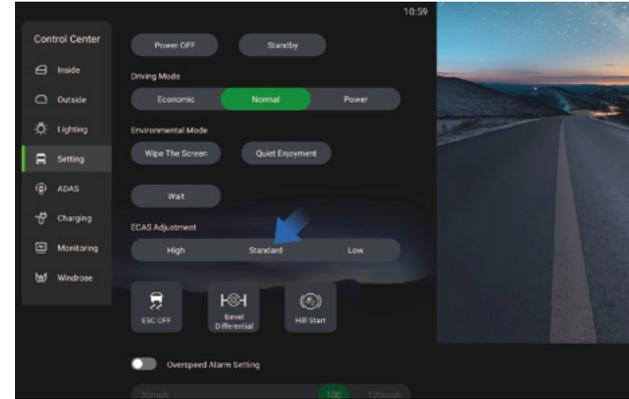
## 11. Front axle selection button

- After pressing this button and selecting the front axle, the front axle indicator will be illuminated.

## 12. Front axle indicator

- When the front axle is selected, the front axle indicator will be illuminated and you can operate the front axle.

## Instructions for operation of vehicle information screen



You can select the appropriate driving height by selecting "Control Center", switching to "Setting" interface, and clicking "ECAS Adjustment" button on the vehicle information screen of the instrument panel.

- High
  1. When driving on bumpy roads or wading roads, you can select a larger driving height to prevent the wheel from jumping and contacting the frame, etc.

2. The height of the high-level airbag is increased by 50 mm relative to the standard height.
- Standard
    1. The standard height controlled by the vehicle information screen and the standard height controlled by the remote control are the same.
    2. If the airbag is not in the standard position, the non-normal height warning icon will be illuminated on the instrument cluster.
  - Low
    1. At high speeds, a smaller driving height can be selected to improve the ride comfort of the vehicle and reduce energy consumption to a certain extent.
    2. The height of the low-level airbag is reduced by 35 mm compared to the standard height.

## Precautions

### Warning

When the ECAS is faulty, the red ECAS MIL on the instrument cluster will be illuminated. You should contact a Windrose

authorized service station as soon as possible for inspection and repair of the system.

### Notice

- The airbag cannot be raised or lowered when the pressure in the air reservoir is insufficient.
- When the vehicle speed exceeds 10 km/h, the manual button control function of ECAS will be disabled.
- When the vehicle is just powered on, if the airbag is not in the normal position, ECAS will automatically return to and maintain at the standard height immediately.
- If the airbag is not in the normal position, when the vehicle accelerates from standstill state to above 10km/h, it will automatically return to the standard height and maintain at the normal height.
- The front/rear airbag can be raised by up to 85 mm and lowered by up to 50 mm.
- If the airbag is not at the standard position, the non-normal height warning icon will be illuminated on the instrument cluster.

### Note

- The vehicle can be driven for a long time at the height you have selected on the vehicle information screen.
- When the vehicle speed exceeds 90 km/h, the ECAS will activate the high-speed mode and automatically adjust the airbag height to a low level, effectively reducing wind resistance and energy consumption.

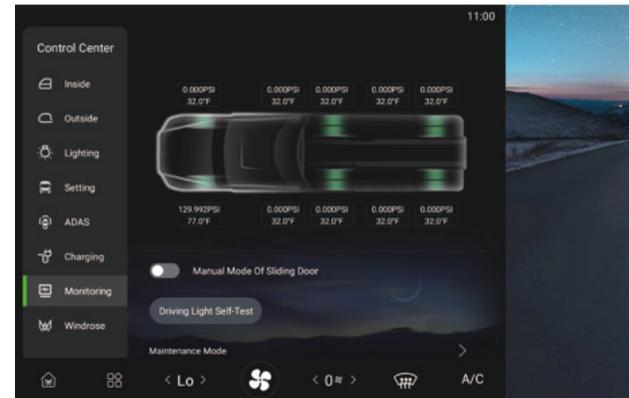
## Tire Pressure Monitoring System (TPMS)

Driving Assistance

### Function introduction

This vehicle is equipped with a tire pressure monitoring system (TPMS), which allows you to check the tire pressure status of the vehicle at any time.

### Operating instructions



You can check the current tire pressure and temperature monitored by TPMS by selecting "Control Center" and switching to "Monitoring" interface on the vehicle information screen of the instrument panel. If the current tire pressure and temperature cannot be displayed, please contact a Windrose authorized service station.

If the pressure or temperature of one or more tires is abnormal, the sensor is lost, or the tire is leaking rapidly, the tire pressure warning lamp will be illuminated on the instrument cluster, and a pop-up window will appear to describe the cause of the fault and the location of the faulty tire, accompanied by a period of "beeping" sound to prompt you to stop as soon as possible, check the tires, and contact a Windrose authorized service station for checking and repair of the system.

## Precautions

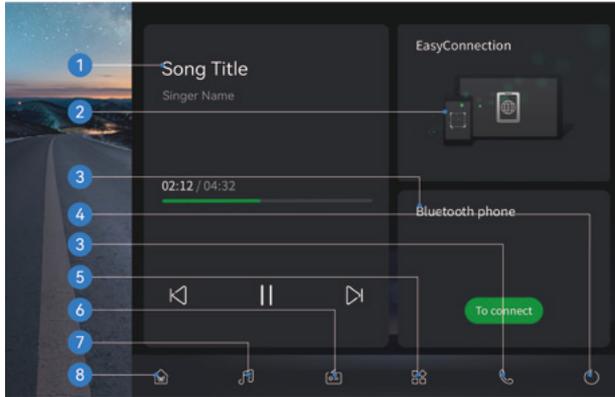
### ① Note

The TPMS is based on tire temperature and atmospheric temperature. In the areas with high altitude or low temperature, it may be necessary to inflate the tires to a slightly higher pressure to clear the low tire pressure alarm.

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# Multimedia Overview

Multimedia System



1. Music player  
You can pause and switch music here.
2. Mobile phone interconnection  
You can click here to connect your phone to the IHU.
3. Bluetooth phone  
After the on-board Bluetooth is connected to the phone, you can use it to answer/make calls in the vehicle.
4. In-vehicle infotainment screen switch

You can click here to turn off the in-vehicle infotainment screen.

5. Application center  
You can click here to view or use related applications.
6. Radio  
You can click here to switch to the radio interface and listen to local radio stations.
7. Local music  
You can view or play music files stored in the IHU system here.
8. Home page  
You can click here to return to the home page.

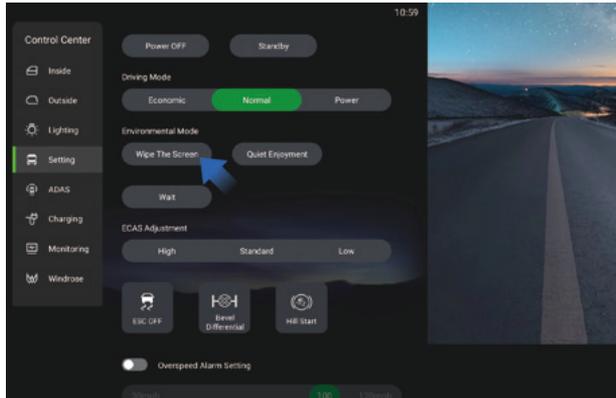
# Ambient Mode

Multimedia System

## Function introduction

The vehicle information screen is equipped with three environment modes to choose from, depending on your usage.

## Operating instructions



You can click "Setting" in the system settings interface on the vehicle information screen to select the environment mode:

- Screen cleaning: After clicking "Wipe The Screen", the vehicle information screen will immediately go black to facilitate the

cleaning of vehicle information screen. When you finish cleaning, just press and hold the vehicle information screen for a while to illuminate the screen.

- Quiet enjoyment: After clicking "Quiet Enjoyment", you can choose and play the desired ambient sound, and the vehicle information screen will immediately go black. When you need to illuminate the screen, just double-click the vehicle information screen.
- Wait: After clicking "Wait", the vehicle information screen will immediately go black. When you need to illuminate the screen, just double-click the vehicle information screen.

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## Driver's Tools

Emergency Handling

This vehicle is equipped with driver's tools when it leaves the factory. The driver's tools are stored in the tool box on the left side of the vehicle for emergency use in specific situations, including:

- Towing hook
- Warning triangle

### Towing hook

When towing this vehicle, you need to install the towing hook in place first and ensure the stability of the vehicle on the towing vehicle.

### Warning triangle

When the vehicle cannot be driven in an emergency, you should first turn on the hazard warning lamps and place the warning triangles in the following three locations:

- More than 100 feet (about 40 steps) from the front of the vehicle;
- Rear of vehicle;
- More than 100 feet (about 40 steps) from the rear triangular warning behind the vehicle.

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## Safety Hammer

Emergency Handling

### Function introduction

In the event of an emergency or disaster, the doors may not be able to open, including but not limited to the following situations:

- Vehicle fire  
When a vehicle catches fire, the fire may cause the doors to deform and fail to open.
- Vehicle falling into water  
When a vehicle accidentally falls into water, the doors will be difficult to open due to the pressure difference between the inside and outside.
- Traffic accident  
In a major traffic accident, the collision may cause the doors to deform and fail to open.

In this case, you can use the safety hammer equipped with this vehicle to break the window and escape.

## Operating instructions



1. Take out the safety hammer

The safety hammer is located on the right side of the electric sliding door and can be directly removed for use.

2. Break the window

Aim the sharp end of the safety hammer at the four corners or edges of the window, and strike hard until the window is broken.

3. Escape from the vehicle

Escape from the inside of the vehicle and stay away from the vehicle in a safe place. Call the police and wait for rescue.

## Precautions

### ⚠ Warning

- The corners and edges of tempered glass are relatively weak, making it easier to break for evacuation.
- Glass may not immediately come off after being shattered due to film or other reasons. In this case, the glass can be forcefully impacted to come off.
- Regularly check the safety hammer to ensure that it is in good working condition.

---

## Fire Extinguisher

Emergency Handling



The fire extinguisher is placed at the lower left of the sleeper, which can help you control the fire in case of emergency.

### Warning

In an emergency, please extinguish the fire and contact the fire department for disposal provided that your safety is ensured.

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## Towing Trailer

Emergency Handling

### Towing rescue

When the vehicle cannot be driven due to breakdown or accident, please contact a Windrose authorized service station immediately for professional towing rescue service. Do not tow the vehicle at will to avoid accidents or vehicle damage.

### Notice

Before towing, check the brake pressure of the vehicle. If the brake pressure is insufficient, the rear axle spring energy storage cylinder needs to be released mechanically or pneumatically.

---

### Towing

When your vehicle needs to be towed out of trouble, follow the steps below:

1. Take out the towing hook from the tool box on the left side of the vehicle.



2. Open the cover plate of the towing hook mounting holes, which are located on the front left and right sides of the vehicle.
3. Screw the towing hook into left or right towing hook mounting hole according to the actual conditions, and make sure that the hook is completely screwed in without shaking. If there are impurities or oil stains in the towing hook thread, please clean it before screwing in the towing hook. Before installing the towing hook, make sure that the vehicle is stationary.
4. Connect the towing device on the towing vehicle to the towing hook.

5. Keep the vehicle powered on to ensure that the steering and braking systems can operate normally.
6. Turn on the hazard warning lamps.
7. Start the towing vehicle to help the faulty vehicle get out of trouble.

#### Warning

The original towing hook is made of special materials and has high strength. If you use a towing hook that is not originally equipped, the towing hook may be broken. If you need to buy a new towing hook, please contact a Windrose authorized service station.

#### Notice

- If this vehicle is connected to a trailer, disconnect the trailer before towing.
- If this vehicle is stuck in mud or soft dirt, do not suddenly tow the vehicle outward. Also avoid oblique or lateral traction to prevent the vehicle chassis from damage.
- When starting the towing vehicle, pay attention to controlling the vehicle speed and avoiding towing the faulty vehicle too fast or too hard to prevent vehicle from damage and endangering other road users.

- When towing this vehicle, the towing vehicle speed must not exceed 15km/h to avoid damage to the vehicle drive motor.
  - When arriving at the destination, be sure to slow down and stop towing the vehicle. After completing the towing operations, please clean up the site in time, remove the towing hook and put it back in place, and close the towing hook protective cover.
  - The towing hook can be used to get the vehicle out of trouble, and do not tow the vehicle for long distances.
  - Towing is allowed only when there is no safety risk to the vehicle. In case that the battery pack is deformed, leaks, smokes, etc., you should eliminate safety risks immediately.
- 

## Brake Failure

Emergency Handling

### Emergency operation

- If the brake fails suddenly while driving, please turn on the hazard warning lamps immediately, hold the steering wheel firmly, and pay attention to avoid and alert passing vehicles by visual and acoustic alarms.

- Slowly turn on the electronic parking brake, observe the driving conditions and use ramps or the runaway truck lane to assist parking if necessary.
- For special road conditions such as winding mountain roads, bridges, cliffs, etc., you should also hold the steering wheel firmly to avoid getting into a dangerous situation such as falling off.

### Follow-up procedures

After parking the vehicle, place warning signs around the vehicle and block the wheels with wedges to prevent the vehicle from slipping, and contact a Windrose authorized service station for inspection and repair of the vehicle.

### Prevention measures

- Regularly maintain the brake system.
- Check the free travel of brake pedal regularly.

#### **Note**

It is strictly forbidden to immediately apply emergency brakes when the brakes fail, otherwise it may cause the vehicle slipping and even roll-over.

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# Out-of-Control Steering or Steering Failure

Emergency Handling

## Emergency operation

- When you lose control of steering wheel suddenly while driving on common roads (straight driving), release the accelerator pedal first, turn on the hazard warning lamps as soon as possible, and depress the brake pedal evenly.
- When you lose control of steering wheel suddenly while driving on special roads (curves, mountain roads), release the accelerator pedal should be released immediately, apply the brakes quickly to stop the vehicle in time to prevent the vehicle from running off the road or colliding with other vehicles.

## Follow-up procedures

After parking the vehicle, place the warning signs around the vehicle and block the wheels with wedges to prevent the vehicle from slipping, and call the Windrose service hotline.

## Prevention measures

- Regularly maintain the steering system.

- Before driving, check whether the steering wheel rotation meets the standard requirements.
- Before driving, check whether the steering pitman arm, ball joint, tie rod, etc. are loose.
- When braking, try to avoid wheel locking.

### Notice

Do not perform emergency braking immediately when you lose control of steering wheel suddenly on common roads, otherwise it will cause the vehicle slipping and even roll-over.

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# Tire Burst

Emergency Handling

## Emergency operation

In the case of tire blowout, follow the steps below:

- Hold the steering wheel firmly with both hands, control the driving direction, and turn on the hazard warning lamps.
- Release the accelerator pedal completely, repeatedly and lightly depress the brake pedal, and try to control the vehicle to drive in a straight line.

- After slowing down, make sure that there are no vehicles or pedestrians behind and on the right side of the vehicle, and slowly pull over to the side of the road.

### Follow-up procedures

- After parking the vehicle, place the warning signs around the vehicle and block the wheels with wedges to prevent the vehicle from slipping.
- After the vehicle stops completely, contact a towing truck for rescue.

### Prevention measures

- Before driving, check the tire tread and tire pressure for bulges, cracks, cuts, nails, and abnormal tread wear.

#### Notice

- In the case of tire blowout, do not turn the steering wheel sharply, otherwise, vehicle drifting will occur.
- Besides, it is forbidden to perform emergency braking operations or brake hardly (especially on highways) to avoid roll-over.

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## Vehicle Sideslip

Emergency Handling

### Emergency operation

In the case of vehicle slipping, the driver should:

- Release the accelerator pedal, and turn the steering wheel slightly to the side of the slipping, and turn the steering wheel back in time.
- Hold the steering wheel to prevent it from turning.

### Prevention measures

- Before driving, check whether the tire pattern, pressure and other items meet the safety standards.
- After the vehicle is started, check the braking effect of the vehicle at low speed. If there is any brake deviation, stop the vehicle immediately, check the braking system and troubleshoot the fault before driving.
- Overloading and overweight will reduce the anti-rollover capacity and driving stability. Therefore, please load the vehicle properly.
- When driving on slippery or icy roads, it is recommended to use the snow chains, drive at low speed, depress the brake pedal carefully for braking, and avoid emergency braking.

- When going down a long steep hill, the center of gravity shifts forward, making the vehicle more prone to tipping, so please slow down the speed, hold the steering wheel firmly,
- and apply the brakes intermittently to control the vehicle speed with the help of the motor drag force.
- Do not use the brakes while steering, accelerating or decelerating to ensure the optimal coordination of braking.
- Before turning, be sure to slow down the vehicle in advance and turn the steering wheel properly.
- It is forbidden to coast in neutral, especially when going downhill, to avoid sudden braking of the vehicle due to excessive inertia forces.

#### Warning

- When the vehicle is slipping on wet or icy roads, do not brake and steer at the same time to avoid aggravating the slipping hazard.
- If slipping is caused by braking (vehicle drifting), release the brake immediately. When it is necessary to slow down, auxiliary braking can be used.
- When the vehicle slips on a curve, stabilize the vehicle first and then apply the brake intermittently.

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## Accidental Removal of High Voltage

Emergency Handling

### Emergency operation

When the vehicle is powered off with high voltage accidentally while driving, the driver should:

- Press the hazard warning lamp switch and try to start the vehicle again.
- After the motor is working, be sure to pull over the vehicle for inspection and eliminate the potential risks before driving.
- If the vehicle cannot be powered on with high voltage, pull over the vehicle with the help of inertia force.

### Follow-up procedures

After parking the vehicle, place the warning signs around the vehicle and call the Windrose service hotline immediately.

### Prevention measures

Go to a Windrose authorized service station regularly to maintain and inspect the vehicle to ensure the stable operation of vehicle systems.

# Emergency evacuation

Emergency Handling

## Emergency operation

When an emergency situation occurs and the car door cannot be opened, you can follow the following steps for emergency evacuation.

## Follow-up procedures



1. Locate the emergency pull ring cover above the left net bag. Open the cover, and then pull the ring firmly outward to break the left window glass.



2. Take out the sleeper protection net from the storage box under the front passenger seat, and connect the socket at one end of the sleeper protection net to the fixed point on the left side wall.



3. Pull the sleeper protection net out of the window, and use it as an auxiliary escape rope to quickly exit the cab.

**Warning**

- When activating the window breaker, the broken window glass may cause glass splinters to fly. Please protect yourself by using your arm to shield your eyes.
- Do not disassemble or modify the window breaker without authorization. Any product damage or other consequences resulting from unauthorized disassembly, modification, or use not in accordance with our specified requirements shall be borne by the user.

- The window breaker can be activated underwater, but prolonged immersion in water is strictly prohibited.
- Regularly check whether the fasteners of the window breaker are loose, and whether the pull ring and sleeper protective net are damaged.
- During daily vehicle maintenance, prevent all components of the window breaker from coming into contact with water sources or corrosive substances, so as to avoid product corrosion and subsequent failure.
- Keep away from fire sources, and replace the window breaker promptly after use.
- Do not operate the pull ring arbitrarily in non-emergency situations. All consequences caused by misoperation shall be borne by the user.

## Protective Equipment for Emergency Rescue Personnel

Emergency Rescue

This vehicle is driven by high voltage batteries, which may result in worse conditions such as high voltage electricity leakage, damage to battery pack, leakage of chemical liquid, etc. in the event of serious collisions. Therefore, the emergency rescue personnel should wear appropriate protective equipment to ensure personal safety when rescuing on the vehicle.

- Wear safety goggles when operating high-voltage systems.
- Wear 1,000 V insulating gloves when touching high-voltage components.
- Use insulating tools when operating high-voltage components.
- Prepare insulating protective hooks.
- Prepare a fire extinguisher suitable for lithium batteries.

### Notice

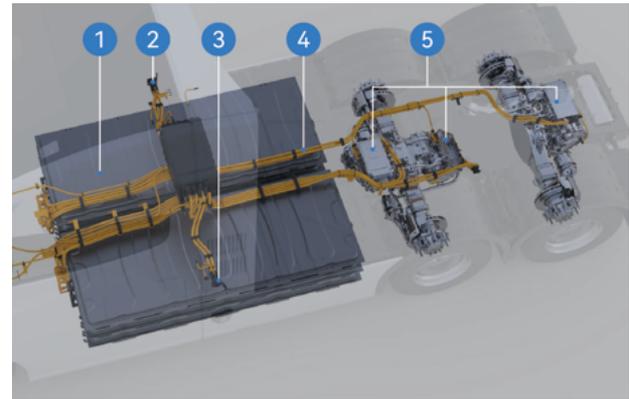
- A supervision mechanism should be followed when the emergency rescue personnel is operating high-voltage components. It is stipulated that one person supervises and another person operates. It is forbidden for two or more people

to work simultaneously. Do not touch the operator during working tasks.

- The emergency rescue personnel must not wear metal jewellery when performing rescue operations.

## High Voltage System Information

Emergency Rescue



1. High voltage battery
2. Right CCS1 mode charging port
3. Left MCS mode charging port
4. High-voltage harness
5. Drive motor

#### **Notice**

- During startup and use, do not touch parts with "high voltage warning signs" or orange parts of the vehicle.
- It is strictly forbidden to trample or bump the high voltage battery of the vehicle.

#### **Note**

- When the high voltage battery and motor MILs on the instrument cluster stay on, please contact after-sales immediately and use a scan tool to read the DTC.
- If the EIC system emits smoke, catches fire, or explodes, please evacuate from the vehicle immediately, call the police and take safety measures.
- When working on the EIC system, please wear insulating gloves, insulating shoes, and insulate the tools. Do not touch the operator during working tasks.

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## Deactivation Method of High Voltage System

Emergency Rescue

### High voltage cutoff from outside

1. Park the vehicle, apply the EPB.



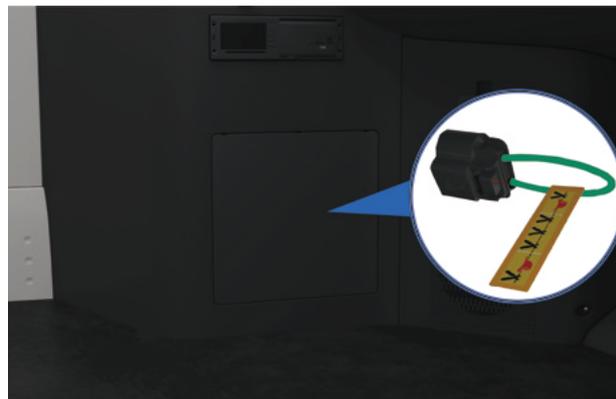
2. Pull the hood opening handle twice in a row to unlock the hood.



3. Find the low voltage MSD in the engine compartment and remove it, and the vehicle will deactivate the high voltage system automatically.

## High voltage cutoff from inside

1. Park the vehicle, apply the EPB.



2. Open the trim cover on the lower left of the instrument panel, find and disconnect the low voltage MSD, and the vehicle will automatically cut off the high voltage system.

### Warning

- Be sure to wear appropriate personal protective equipment when touching any high-voltage components.
- It is forbidden to touch the high voltage battery components even though the high voltage system has been deactivated. Be sure to wear appropriate personal protective equipment if it is necessary to operate the high voltage battery components.

- If any damage is found in the high voltage components, be sure to wrap the damaged parts with the insulation tapes.
- 

#### ① Note

- In an emergency, the operator can cut the orange harness on the MSD to prevent the harness from being energized again and allow the vehicle to deactivate the high voltage system automatically.
  - In case of a vehicle collision, the high voltage system will be automatically deactivate.
- 

## Rescue of Vehicle on Fire

Emergency Rescue

When a vehicle catches fire, you should immediately determine the firing intensity. If the fire is small and can be contained, rescue personnel should employ an appropriate fire extinguishing method like dry powder fire extinguisher, carbon dioxide fire extinguisher or dry sand, to contain the flames.

If the fire is large or the battery is found to be severely squeezed or bent, the rescue personnel should contain the flames with large amounts of water without a break. Meanwhile, the rescue personnel should keep surrounding combustibles away from the burning vehicle as soon as possible so as to prevent the fire from spreading.

#### ⚠ Warning

- When the vehicle catches fire, the occupants in the vehicle should leave the vehicle as soon as possible, call the rescue telephone according to the scene situation, and inform the rescue personnel that the vehicle on fire is a pure electric vehicle equipped with high-voltage components.
  - If the rescue personnel find that there are occupants in the vehicle and the door cannot be opened during rescue, they can use sharp and hard tools to knock on the edge of the glass of the door to help the occupants trapped in the vehicle break the window to escape.
-

### Notice

Fires in high-voltage components must be extinguished using a fire extinguisher suitable for lithium batteries.

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## Rescue of Wading Vehicle

Emergency Rescue

A vehicle that drives through flooded water may not have obvious damage, but its high-voltage system may be at risk of electrical leakage. Therefore, when rescuing wading vehicles, the rescue personnel must wear appropriate protective equipment to avoid injuries or casualties caused by electric shock.

### Warning

- The rescue personnel must wear appropriate protective equipment before touching high-voltage system components in water to prevent electric shock.
- After the rescue personnel remove the vehicle from the wading area, be sure to wait for the vehicle to dry completely before carrying out corresponding operations to prevent electric shock.



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## Necessity of Maintenance

Daily Maintenance

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It is necessary to carry out routine maintenance and scheduled maintenance to the vehicle, which can ensure the normal use, efficiency, reliability of the vehicle and a good ride experience, and to reduce the possible maintenance costs incurred.

For the routine maintenance items that can be completed by the user himself according to the manual, the user can complete the routine maintenances in accordance with the relevant instructions of this manual.

This manual provides the information needed to operate and understand the vehicle and its components. More detailed information of vehicle maintenance is contained in the Windrose Product Warranty Manual.

This vehicle must be regularly inspected and maintained as indicated in the Windrose Product Warranty Manual, in order to ensure coverage of the vehicle under the manufacturer's warranty. The systems installed on the vehicle are sophisticated and there are strict after-sale service requirements for electric vehicles in accordance with national laws and regulations. Therefore,

Windrose recommends that you should complete the scheduled maintenance of the vehicle at Windrose authorized service station.

### Notice

You are responsible for maintaining the vehicle and determining the suitability of the components to ensure that the vehicle complies with local regulatory requirements, including but not limited to tires, side deflectors, roof deflectors, side skirt trims, bumpers, front cover, and vehicle speed limiter. You must ensure that the performance of these components always meets or exceeds the original components that are replaced.

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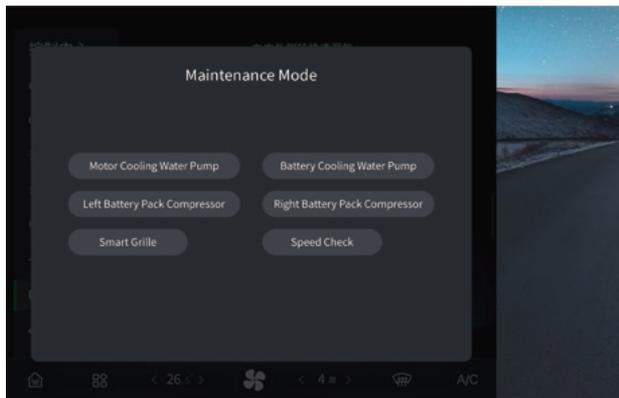
### Note

If you have any questions about how to maintain your vehicle, please contact a Windrose authorized service station directly for help.

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## Service Mode

Daily Maintenance



The speed limit test switch in the service mode is only used for inspection of vehicle speed limit. After activating this function, the switch will be highlighted. It must be kept closed during normal driving.

The motor coolant pump switch, battery coolant pump switch, left battery pack compressor switch, right battery pack compressor switch and active grille shutter switch in the service mode are only used for vehicle inspection and coolant filling. They must be kept closed during normal driving.

## Inspection of Electric Drive System

Daily Maintenance

Before starting the vehicle, check whether the relevant data displayed on the instrument cluster is normal. If the data is abnormal, do not drive the vehicle. Instead, record the system fault type and related data, and report the information to the Windrose authorized service station.

### Notice

If the high voltage battery or motor system fails, please contact a Windrose authorized service station for repair in time.

## Tire Pressure Monitoring

Daily Maintenance

This vehicle is equipped with a tire pressure monitoring system, which will display the tire pressure on the instrument cluster and the vehicle information screen. If the tire pressure is abnormal,

please do not continue to drive the vehicle for a long time and contact a Windrose authorized service station in time.

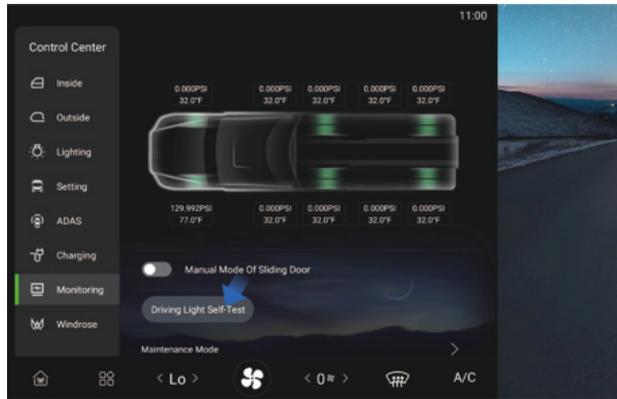
## Lighting Inspection

Daily Maintenance

### Function introduction

This vehicle is equipped with a self-test function for verifying functionality of each driving lamp.

### Operating instructions



You can activate this function by selecting "Control Center", switching to the "Monitoring" interface and clicking "Driving Light Self-Test" button on the vehicle information screen of the instrument panel. After activation, all lamps of the vehicle will be illuminated at the same time. You can observe the lamps and indicators on the instrument cluster to determine whether there is a faulty lamp.

### Precautions

#### ⚠Warning

If any, please contact a Windrose authorized service station in time to check and repair the vehicle lamps.

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## Inspection of Horns and Wipers

Daily Maintenance

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Check the electric/air horns as below:

1. Park the vehicle, press the horn button on the steering wheel to check whether the electric horn is working properly.
  2. Press the electric/air horn change-over switch, press the horn switch repeatedly, and check whether the air horn is working properly.
  3. Power on the vehicle, turn on the wiper switch, and check whether the wiper is working properly at each gear.
-

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## High Voltage Battery

Routine Maintenance

### Position of high voltage battery

The high voltage battery is located under the floor of the vehicle. When the vehicle is driving on bumpy or uneven roads, be careful to prevent collisions.

#### Warning

When the high voltage battery catches fire in a crash, pull over the vehicle immediately and evacuate the occupants from the vehicle and move them away from traffic. When the vehicle speed is below 20km/h, the electric sliding door will automatically unlock; When the vehicle speed is below 6km/h, the electric sliding door will automatically open. To ensure the life safety of the occupants in the vehicle, if the driver does not decelerate the vehicle within 4 minutes in the above situation, the system will decelerate and stop the vehicle automatically.

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### Maintenance of high voltage battery

The high voltage battery SOC needs to be calibrated:

- once a month.

- After the vehicle has been stored for more than 3 weeks, SOC calibration should be performed once at least.

Calibration method:

1. Use the high voltage battery to 20% -25% SOC.
2. Charge the high voltage battery fully.
3. Use the battery power to 40%-60% SOC.

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## Coolant

Routine Maintenance

### Coolant selection

Please select the coolant with the corresponding freezing point according to driving environment to ensure the normal operation of the vehicle cooling system.

### Inspection of coolant

After the coolant temperature drops, check whether the coolant level in the reservoir is between the MIN to MAX marks; If the coolant is insufficient, the warning lamp on the instrument cluster will be illuminated to remind you to add coolant.

If the coolant has suspended matter, sediment or discoloration, replace it with new coolant immediately.

Regularly check the freezing point of the coolant to ensure that it meets the requirements of the local environment and replace it regularly.

## Replace the coolant

Drain the coolant as below:

1. Park the vehicle on the flat ground.
2. Turn on the EPB switch.
3. After the coolant temperature drops, unscrew the auxiliary water tank filler cap.
4. Loosen the drain plug at the bottom of the radiator to drain the coolant.

## Filling of coolant



Fill the coolant as below:

1. Add the coolant slowly and evenly until it reaches the MAX level, and tighten the filler cap.
2. Power on the vehicle and run the water pump for about 10 minutes.
3. Power off the vehicle and add coolant to the MAX level.
4. Tighten the auxiliary water tank filler cap.

### Warning

- Use the coolant recommended by Windrose. Do not mix different types of coolant to avoid reactions that may corrode the motor and radiator or block the cooling system.
- Never add liquids other than coolant to the cooling system to avoid damaging the motor and other components.
- Do not step on the auxiliary water tank.

### Notice

- Check, add and replace the coolant regularly.
- Rinse the cooling system repeatedly with clean water for  $\geq 3$  times when adding or draining the motor coolant for the first time.
- When adding the coolant, keep the motor and room temperature  $\leq 45^{\circ}\text{C}$  to avoid burns.
- Add the coolant slowly and evenly until it reaches the MAX level
- After the vehicle is powered off, the motor, ECU, radiator and other components are still hot. In this case, do not open the auxiliary water tank filler cap. Otherwise, hot coolant or steam will spray out, causing burn injuries. Carry out the inspection,

replacement and filling of the coolant after the temperature of the motor system drops.

- Only professionals can remove the pressure cap on the side of the auxiliary water tank.

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## Cleaning of radiator

After the radiator has been used for a period of time, insects, catkins, dirt or other residues in the radiator fins will reduce the cooling capacity of the cooling system. You need to check the outer surface of the radiator frequently and clean the foreign objects in time (do not flush it with high-pressure gas or water).

## Maintenance of cooling system

Check the cooling system to ensure that the cooling system does not leak. Check whether the cooling system leaks before driving. There are 4 common reasons for water leakage:

- The radiator welding part leaks, and the radiator should be replaced.
- The aging and cracking of the hose and the rust of welding part of the pipe will cause coolant leakage. Please replace the pipe.

- Using inferior coolant will cause electrolytic corrosion and leakage of the cooling system. Use a special cleaning agent to clean the cooling system, and add new coolant that meets the requirements after installation.
- The cooling pipe clamp is loose. Use the corresponding tool to replace or tighten the clamp.

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## Tire

### Routine Maintenance

Tires are the connection to the road and affect driving safety. Please check the following items of the tires regularly or before driving:

- Tire pressure  
When checking tire pressure, note that the pressure will change with temperature.
- Tread pattern  
The tread pattern affects the grip and control of the tire. The smaller the depth or the fewer the pattern, the worse the grip and control of the tire.
- Tire conditions

Check the tire conditions before driving:

- External damage;
  - Foreign objects in the tread pattern;
  - Foreign objects in the tire (dual tires);
  - Cracks or dents;
  - One-sided shoulder tire wear or irregular tread wear.
- Tire service life  
When the tire is used for more than 6 years, replace it with a new one.

### Warning

- After parking the vehicle, wait for the tire to cool down before inflation or deflation.
- The tire pressure should be kept within a reasonable range. Too high or too low tire pressure will accelerate tire wear, increase power consumption, and lengthen the braking distance. In severe cases, tire blowout may occur, resulting in traffic accidents and even personal injuries.
- Before driving, you must check the integrity of the tread pattern. Excessive worn tread will cause serious slipping on wet roads (rainy days, snowy days) or when driving at high speed, resulting in loss of control of the vehicle and even personal injuries.

- Cracks, dents or external damage will cause the tire blowout. If any, the tire should be repaired or replaced immediately to avoid accidents.

#### Notice

- Please follow local and national regulations for the wear standard of the tire tread pattern. When the tread wear exceeds the specified value, the tire should be replaced as soon as possible.
- Avoid contact of tires with oil, grease, fuel, etc., as this may accelerate tire aging.
- When parking the vehicle, avoid only part of the tire in contact with the ground or parking on road with sharp stones.

#### Note

The correct tire pressure is specified in the tire pressure table section.

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## Steering System

Routine Maintenance

Before driving, check the free travel and looseness of the steering wheel, shake the steering wheel to ensure that it is locked. During driving, check whether there is heavy steering, shaking steering or steering offset. In case of any of the situations above, please stop driving the vehicle and contact a Windrose authorized service station immediately.

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## High Voltage Security Maintenance

Routine Maintenance

### Principles of safe operation under high voltage

Do not modify and install accessories on the high-voltage system and body of the vehicle at will. Please operate according to the regulations, otherwise it may cause fire; Considering that there is a risk of electric shock in the high-voltage system of the complete vehicle, the high-voltage system should be operated by workers

who have been subject to professional training and acquired the qualification for the employment in accordance with relevant safety regulations.

## Personnel requirements

- Drivers should not disassemble components attached with high-voltage warning sign at will if they have not received any training; Do not touch high-voltage components, such as orange high-voltage cables or components that come into contact with high-voltage cables, after an accident. Failure to do so may result in a risk of high-voltage electric shock. When disassembling and repairing high-voltage electrical components, the operator should unplug the low-voltage maintenance power-off plug, disconnect the low-voltage battery power supply and cut off the high-voltage circuit simultaneously.
- Operators should not wear metal ornaments, such as watches and rings, and should not have metal objects in the pockets of work clothes, such as keys, metal shell pens, mobile phones, and coins.

- Operators should not bring tools unrelated to work into the work site, and must use metal tools with the handheld parts being insulated.
- Before connecting the high-voltage power supply, the operator should check whether there is any debris around the high-voltage electrical appliances, and notify irrelevant personnel to stay away from the above-mentioned parts, and remind loudly when closing the switch.

## Maintenance requirements

The maintenance and repair of the vehicle can only be carried out by service stations or maintenance units with the corresponding maintenance qualifications, and by personnel who have received the corresponding training and obtained the qualifications. Otherwise, the high voltage in the high-voltage system may impose danger and even threaten your life.

## Charging maintenance

In case the vehicle has parked for a long time, the condition of the high voltage battery should be checked every two weeks to prevent electric leakage in the high voltage battery. The vehicle, if parked for a long time, should be charged and maintained regularly to prevent the high voltage battery that has not been

used over a long time from affecting the performance of the vehicle.

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## Battery

### Routine Maintenance

The low voltage battery is located in the engine compartment. The service life and function of the battery are affected by many factors, such as the number of starts, driving style, driving conditions, climatic conditions, etc.:

- If the battery is completely discharged multiple times, its service life may be shortened. Keeping the battery charged enough helps extend its lifespan.
- The starting capacity of the battery will be weakened over time. If the vehicle is parked for a long time, the battery may need to be recharged.

### Warning

- Battery electrolyte is corrosive, and if it gets into the eyes or skin by accident, rinse immediately with plenty of water and seek medical care.
  - The maintenance and care of the battery should be handled by professionally trained personnel.
  - It is prohibited to touch the positive and negative terminals of the battery with both hands or a conductor simultaneously at any time.
  - If the low voltage battery catches fire, be sure to leave the vehicle quickly. If the smoke is inhaled accidentally, please go to an open area and seek medical attention as soon as possible.
  - It is forbidden to connect the battery cell to an external 12V electrical appliance.
  - It is forbidden to disassemble the battery without authorization to prevent acid leakage from corroding the human body, vehicle, etc.
-

### Notice

If you notice the following, be sure to stop using the vehicle and cut off the power immediately. Contact the Windrose authorized service station for further guidance:

- Power cords, plugs or communication lines cracked or damaged.
- Signs of overheating, smokes and sparks.
- Battery pack damage (e.g. cracking), battery leakage.

## Cleaning of battery

- Keep the battery clamp and battery surface clean and dry.
- Apply a small amount of acid-proof grease to the lower end of the battery clamp.
- Please use commercial detergent to clean the corroded parts of the battery.

### Warning

- Please keep the surface of the battery terminal and the post clean, otherwise the service life of your battery will be shortened.
- Do not use detergents containing flammable substances, which will corrode the battery case.

- The dust in the battery cell will cause the battery to discharge automatically and be easily damaged.
-

## Vehicle Outline Size

Technical Data

Length (mm)	Width (mm)	Height (mm)	Wheelbase (mm)
8100	2545	3935	4650+1350

## Parameters of Power System

Technical Data

	Item	NCM	LFP
Drive motor	Motor model	TZ230XSSW001	
	Manufacturer	Jiangsu Swell Industry Development Co., Ltd.	
	Layout	Rear motor	
	Cooling method	Water cooling	
	Duty cycle	S9	
	Rated power/speed (kW/r/min)	170/6494	
	Maximum torque/speed (N·m/r/min)	550/4514	

Item		NCM	LFP
High voltage battery	Battery model	EV-CALB-755161	EV-CALB-766230
	Number of battery pack	4	4
	Main features	NCM	LFP
	Battery capacity (kW.h)	486.09	705.2
	Charging mode	DC charging	DC charging
	Charging current (A)	644	920
	Charging voltage (V)	887.4	868.7
	Cooling method	Liquid cooling	Liquid cooling
	Manufacturer	Huating (Hefei) Hybrid Technology Co., Ltd.	Huating (Hefei) Hybrid Technology Co., Ltd.
Motor control unit	Model	KTZ80X43SSW001/02	
	Manufacturer	Jiangsu Swell Industry Development Co., Ltd.	
DC-DC	Model	SEC-D8024V60P0-WD	
	Manufacturer	Suzhou Synland Energy Technology Co., Ltd.	
Vehicle control unit	Model	WD-VDC-M9-V001	
	Hardware version	V1.1	

Item		NCM	LFP
Vehicle control unit	Manufacturer	Anhui Windrose Holdings Co., Ltd.	
E-axle case	Model	HDE10t	
	Manufacturer	Hande	
	Main features	Transaxle	
	Operation method	AMT	
	Maximum output torque (N·m)	35,000 (triple-motor)	43,000 (quad-motor)

## Fastening Torque

Technical Data

Module	Assembly Position	Bolt Size	Tightening Torque (N·m)
Steering system	Fixing slave rocker arm-subframe	M14×2 (10.9)	210±20
		M14×2 (10)	
	Tie rod ball joint-relay rod/steering knuckle arm rocker arm	M24×1.5 (8)	345±15
	Fixing EHPS-subframe	M20×1.5 (10.9)	550±20

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Module	Assembly Position	Bolt Size	Tightening Torque (N·m)
Steering system	Steering gear output shaft-active steering rocker arm	M45×1.5 (10)	675±25
	Oil pump inlet pipe joint-oil pump	M26×1.6	125±5
	Oil pump-straight-through joint-EHPS	M18×1.5	75±5
	High-pressure oil pipe-straight-through joint	M22×1.5	110±10
	Low-pressure oil pipe-straight-through joint	M22×1.5	110±10
	Electric pump assembly-oil pump bracket	M12×1.75 (8.8)	65±5
	Electric oil pump bracket-subframe	M12×1.75 (8.8)	65±5
	Electric pump assembly-subframe	M12×1.75 (8.8)	65±5
	Ground wire	M14	210±20
	Steering oil pump-oil inlet hose-steering oil reservoir	/	7±1
	Steering oil reservoir-return oil hose-low-pressure oil pipe	/	7±1
	Steering oil reservoir-oil pot bracket	M8	26±4
	Oil reservoir bracket - main frame	M14	210±20
	Oil pipe bracket-subframe	M14	210±20

Module	Assembly Position	Bolt Size	Tightening Torque (N·m)
Steering system	Oil pipe fixing clamp-bracket	M8	8±1
	Fixing steering column-fixing bracket	M10×1.25 (8.8)	35±5
	Fixing steering column-tubular beam	M8×1.25 (8.8)	26±4
	Fixing steering column lower shaft-bottom plate	M8×1.25 (8.8)	26±4
	Universal joint-Cross-angle steering gear	M10×1.25 (8.8)	53±7
		M10 (8)	
Steering wheel-steering column	M14 (8)	60±5	
Power system cooling device	Connecting bracket to frame	M14×2 (8.8)	120-140
	Connecting exhaust pipe fixing bracket to exhaust pipe fixing pipe clamp 3	M5×0.8 (8)	6-8
	Connecting bracket to frame	M14×2 (8)	120-140
	Connecting water pump fixing bracket to water pump	M8×1.25 (8.8)	20-28
	Connecting expansion tank to rear integrated frame (unit)	M10×1.5 (10.9)	38-52
		M8×1.5 (8)	
Fixing hose clamp 1	M8×1.25 (8.8)	20-28	

Module	Assembly Position	Bolt Size	Tightening Torque (N·m)
Power system cooling device	Connecting bracket to frame (hexagon flange bolt full shank)	M14×2 (8.8)	120-140
	Connecting bracket to frame (hexagon bolt with serrated flange)	M14×2 (8.8)	120-140
	Fixing hose (B-type and C-type worm gear drive hose hoop)	/	3-4
	Fixing hose (A-type worm gear drive hose hoop)	/	3-4
	Connecting expansion tank to rear integrated frame (unit)	M10×1.5 (8.8)	38-52
	Fixing nylon tube and pipe clamp	M8×1.25 (8.8)	20-28
	Connecting expansion tank to rear integrated frame (unit) (hexagon flange bolt)	M8×1.25 (8.8)	20-28
	Connecting expansion tank to rear integrated frame (unit) (hexagon bolt)	M8×1.25 (8.8)	20-28
	Fixing water pipe clamp	M8×1.25 (8)	20-26
A/C regulator	Connecting A/C box to front wall cross beam	M6×1 (10.9)	10±1
	Connecting A/C box to floor (hexagon flange bolt full shank)	M8×1.25 (10.9)	10±1

Module	Assembly Position	Bolt Size	Tightening Torque (N·m)
A/C regulator	Connecting A/C box to floor (all-metal hexagon flange lock nut)	M6×1 (8)	10±1
	Connecting expansion valve and floor	M6×1 (8.8)	10±1
	Compressor and compressor bracket	M8×1.25 (8)	25±2
	Connecting ground wire to frame (hexagon flange bolt full shank)	M10×1.5 (10.9)	25±2
	Connecting ground wire to frame (all-metal hexagon flange lock nut)	M8×1.5 (8)	25±2
	Connecting compressor bracket to subframe	M8×1.25 (10.9)	25±2
	Connecting pipe fixing bracket to subframe (hexagon flange bolt)	M14×2 (10.9)	160
	Connecting pipe fixing bracket to subframe (hexagon flange bolt full shank)	M14×2 (10.9)	160
	Connecting pipe fixing bracket to the subframe (all-metal hexagon flange lock nut)	M14×2 (8)	160
	Fixing temperature sensor and trim panel	/	1.33
	Connecting pressure plate	M6×1 (8.8)	10±1

Module	Assembly Position	Bolt Size	Tightening Torque (N·m)
A/C regulator	Connecting pressure plate	M6×1 (10.9)	10±1
	Connecting pipe clamp	M8×1.25 (10.9)	10±1
	Connecting pressure plate	M8×1.25 (10.9)	25±2
	Connecting pipe clamp to battery bracket	M8×1.25 (10.9)	25±2
Front suspension components	Upper and lower swing arms and subframe	M20×1.5 (10.9)	568±28
	Airbag upper connecting part	M12×1.5 (10)	55±5
	Airbag lower connecting part	M18×1.5 (10.9)	270±25
	Shock absorber upper and lower nuts	/	90±10
Subframe	Subframe parts for shared hole	M14×2 (10)	180±15
Rear suspension components	Fixing air spring and air spring upper bracket	M12×1.5 (10)	55±5
	Fixing air spring-equalizing beam (Spirlock nut)	M18×1.5 (10)	270±25
	Fixing air spring-frame	M14×2 (10.9)	180±15
		M14×2 (10)	
	Fixing equalizing beam-rear axle	M22×1.5 (10.9)	700±50
	Fixing equalizing beam-rear axle (Spirlock nut)	M22×1.5 (10)	700±50

Module	Assembly Position	Bolt Size	Tightening Torque (N·m)
Rear suspension components	Fixing tubular beam and thrust rod bracket (hexagon flange bolt)	M16×2 (10.9)	220±20
	Fixing tubular beam and thrust rod bracket (hexagon flange nut)	M16×2 (10)	220±20
	Fixing X-type control arm-tubular beam	M22×1.5 (10.9)	700±50
	Fixing X-type control arm-axle end (Spirlock nut)	M22×1.5 (10)	700±50
	Fixing shock absorber lower end-equalizing beam	M20×1.5 (10.9)	550±50
	Fixing shock absorber upper end-shock absorber bracket	M20×1.5 (10.9)	550±50
	Fixing shock absorber	M20×1.5 (10)	550±50
	Fixing shock absorber bracket-frame (hexagon flange bolt)	M14×2 (10.9)	180±15
	Fixing shock absorber bracket-frame (hexagon flange nut)	M14×2 (10)	180±15
	Fixing limit buffer block assembly-frame (hexagon flange bolt)	M14×2 (10.9)	180±15
Fixing limit buffer block assembly-frame (hexagon flange nut)	M14×2 (10)	180±15	

Module	Assembly Position	Bolt Size	Tightening Torque (N·m)
Rear suspension components	Fixing longitudinal thrust rod assembly-thrust rod bracket	M20×1.5 (10.9)	550±50
	Fixing longitudinal thrust rod assembly-equalizing beam	M20×1.5 (10.9)	550±50
	Fixing longitudinal thrust rod assembly	M20×1.5 (10)	550±50
Windshield washer components	Fixing washing fluid reservoir assembly and right side wall sealing plate inner panel, floor front end outer cross beam assembly	M6×1 (8.8)	9±1
Wiper components	Fixing wiper assembly and wiper mounting assembly	M8×1.25 (8.8)	23±3
	Fixing wiper arm and wiper motor output shaft	M8×1.25 (8)	23-30
Electric horn components	Fixing electric horn assembly and front expansion tank mounting beam assembly	M6×1 (8.8)	9±1
	Fixing air horn and air horn bracket	M6×1 (8.8)	9±1
	Fixing air horn bracket and right side beam	M14×2 (10.9)	137±5
	Fixing electric horn assembly and front expansion tank mounting beam assembly	M6×1 (8.8)	9±1
Battery	Battery bracket and right front connecting beam	M14×2 (10.9)	200±10
	Battery bracket and left front connecting beam	M14×2 (10.9)	200±10

Module	Assembly Position	Bolt Size	Tightening Torque (N·m)
Battery	Battery cushion plate and battery assembly bracket	M8×1.25 (8.8)	23±3
	Smart junction box-body and lower left instrument control unit fixing bracket	M6×1.25 (8.8)	9±1
	Chassis smart junction box bracket and left side wall sealing plate inner panel	M8×1.25 (8.8)	23±3
	Smart junction box-chassis and chassis smart junction box bracket	M8×1.25 (8.8)	23±3
	Chassis smart junction box bracket 2 and chassis smart junction box bracket	M6×1.25 (8.8)	9±1
Wheel components	Wheel nut	M22×1.5 (10)	650±50
	Tire emergency safety device	M8	10±1
SKF maintenance-free wheel end	Brake disc connecting screw	M18×1.5	330±25
	Lock nut	M45×2	600±50
Body suspension connecting components	Connecting body first/second/third suspension bracket-cab	M16×1.5 (10.9)	300±10
	Connecting body second suspension bracket-frame	M14×1.5 (10.9)	200±10
	Connecting body second/third suspension bracket-frame (hexagon flange nut)	M14×1.5 (10)	200±10

Module	Assembly Position	Bolt Size	Tightening Torque (N·m)
Body suspension connecting components	Connecting body third suspension bracket-frame	M14×1.5 (10.9)	200±10
	Connecting body fourth suspension-cab Rear wall mounting plate-cab	M14×2 (10.9)	200±10
	Connecting body fourth suspension-cab	M14×1.5 (10.9)	200±10
Body suspension connecting components	Connecting body fourth suspension-integrated frame	M16×1.5 (10.9)	300±10
	Connecting body fourth suspension-rear wall mounting plate (all-metal hexagon flange lock nut)	M14×2 (10)	200±10
	Connecting body fourth suspension support rod assembly-frame	M14×1.5 (10.9)	200±10
	Connecting body fourth suspension support rod-body fourth suspension	M14×1.5 (10.9)	200±10
	Connecting body fourth suspension support rod-body fourth suspension (all-metal hexagon flange lock nut fine pitch)	M14×1.5 (10)	200±10

# Tire Pressure Gauge

Technical Data

Tire Specifications	Type	Rim Specifications	Load Capacity (lb/kg/tire)		Inflation Pressure (kPa)	Wheel Position
			Single	Dual		
295/80R22.5 18PRM	18	9.00x22.5	7810/3550	7150/3250	900	All position
315/70R22.5 20PR L Z2*	20	9.00x22.5	8800/4000	7370/3350	900	Steer
315/70R22.5 20PR L D2*	20	9.00x22.5	8250/3750	7370/3350	900	Drive
12R22.5 18PRK*	18	9.00x22.5	7810/3550	7150/3250	930	All position

## Wheel Dynamic Balancing

Technical Data

Tire Specifications	Type	Rim Specifications	Dynamic Imbalance of Assembly (g.cm)
295/80R22.5	18	9.00x22.5	≤60
315/70R22.5*	20	9.00x22.5	≤60
12R22.5*	18	9.00x22.5	≤60

## Wheel Alignment Parameters

Technical Data

Front Axle Model	Kingpin Inclination	Wheel Camber	Toe-In (mm)
2901001X9D01	7.9°±30'	0.65°±30'	0-2

## Maximum Speed and Gradability

Technical Data

Maximum Total Mass (lb/kg)	Motor Quantity	Gear Position	Maximum Gradability		Sustained Gradability		Maximum Limit Speed (km/h)
			1st Gear-10km/h, 90s, 150m	2nd Gear-30km/h, 90s, 500m	1st Gear-10km/h, Sustained	2nd Gear-60km/h, Sustained	
82000/37194.6	triple-motor	1st Gear	35%		17%	120	
		2nd Gear	12%		5%		
	quad-motor	1st Gear	35%		19%		
		2nd Gear	17%		7%		

## Working Pressure of Air Reservoir

Technical Data

Model	Rated Working Pressure (bar)	Starting Pressure (bar)
Full series	12	7.5

# Lamp Power Meter

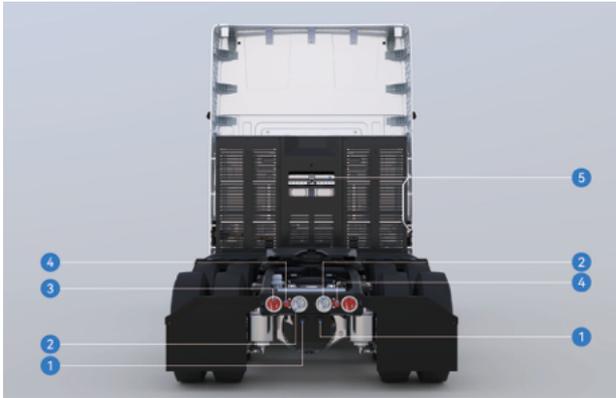
Technical Data



1. High beam
2. Front turn signal lamp, daytime running lamp+
3. Front outline marker lamp
4. Parking lamp
5. Low beam



1. Side marker combination lamp



1. License plate lamp
2. Reversing lamp
3. Brake lamp/taillamp/turn signal lamp
4. Rear retro-reflector
5. Rear working lamp



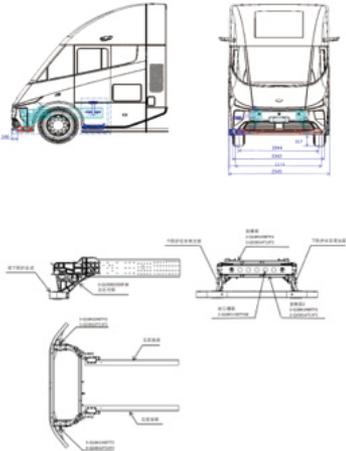
1. Side marker combination lamp

Lamps	Function	Power (W)	Model	Quantity
Rear combination lamp	Brake lamp	2.2	LED	2
	Turn signal lamp	2.2	LED	2
	Taillamp	0.2	LED	2
Reversing lamp	Reversing lamp	1.5	LED	2
License plate lamp	License plate lamp	0.7	LED	2
Headlamp	High beam	32	LED	2
	Low beam	40	LED	2
Front combination lamp	Daytime running lamp	14	LED	2
	Front turn signal lamp	14	LED	2
	Parking lamp	6.6	LED	2
Front outline marker lamp	Front outline marker lamp	1.7	LED	2
Logo lamp	Logo lamp	1.7	LED	3
Rear working lamp	Rear working lamp	9	LED	1
Side marker combination lamp	Side marker lamp	0.8	LED	6

Lamps	Function	Power (W)	Model	Quantity
Side marker combination lamp	Side marker lamp	1.5	LED	2
Ceiling lamp	Ceiling lamp	9.5	LED	2
Front reading lamps	Front reading lamps	0.6	LED	2
Sleeper reading lamp	Sleeper reading lamp	1.3	LED	1
Lighting lamp	Lighting lamp	0.5	LED	3
Ambient lamp	Ambient lamp	0.4	LED	2

# Data of Protection Device

Technical Data

Name	Material	Connection Position	Connection Method	Diagram of Structural Dimensions
Front underrun protection device	6110A-T6	Frame	Bolt	 <p>The diagrams illustrate the front underrun protection device (FUPD) in various views. The top row shows a side view of a vehicle with the FUPD installed and a front view of the FUPD structure with dimension lines. The bottom row shows detailed cross-sectional views of the FUPD components, including the frame, bolts, and mounting brackets, with labels in Chinese characters.</p>

# Curb Mass, Total Mass, Axle Load, Drive Mode

Technical Data

Model	Mass Parameters		Axle Load (full load)	Axle Load (empty)	Drive Mode
	Curb Weight	Maximum Total Mass (kg)	Front Axle/Middle and Rear Axle (axle group)	Front Axle/Middle and Rear Axle (axle group)	
NCM 3 Motor	23,650lb/10,750kg	55000lb/25000kg	15400lb/39600lb 7000kg/18000kg	11220lb/12430lb 5100kg/5650kg	6×4
NCM 4 Motor	23980lb/10900kg	55000lb/25000kg	15400lb/39600kg 7000kg/18000kg	11220lb/12760lb 5100kg/5800kg	6×4
LFP 3 Motor	26037lb/11835kg	55000lb/25000kg	15400lb/39600kg 7000kg/18000kg	12210lb/13827lb 5550kg/6285kg	6×4
LFP 4 Motor	26367lb/11985kg	55000lb/25000kg	15400lb/39600kg 7000kg/18000kg	12210lb/14157lb 5550kg/6435kg	6×4
LFP 3 Motor	26180lb/11900kg	54212.4lb/24642kg	14300lb/39912.4lb 6500kg/18142kg	12320lb/13860lb 5600kg/6300kg	6×4

# Barometric Pressure Characterization Data

Technical Data

Air Compressor/Pressure Relief Valve		Multi-Circuit Protection Valve	Minimum Design Pressure of the Service Brake System for Calculation
Maximum cut-off pressure = 1.25MPa	Minimum opening pressure = 1MPa	Static closing pressure = 0.5MPa	0.6MPa