



20000157 产品使用说明书

Product Instructions



YUTONG BUS CO.,LTO.

Catalog

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Foreword

Dear users,

Sincerely thank you for trusting in Yutong Company and choosing Yutong product with excellent safety, comfort, dynamic property and economic efficiency. The quality products and sincere services we provide will bring pleasure to your life and work.

Before driving for the first time, please read this *Product Instructions* carefully, so as to fully understand and master the operation methods and precautions for this vehicle. This *Product Instructions* contains important information on safe driving and vehicle maintenance. Use and maintain the vehicle correctly according to the *Product Instructions*, so as to improve driving safety and extend the service life of the vehicle. Ignoring these information could result in vehicle damage or personal injury.

This *Product Instructions* provides information about all the configurations of this vehicle. Due to the different configurations of the vehicle models, the description in this *Product Instructions* may be different from the actual configuration of the vehicle you purchased. Refer to the actual vehicle received. Figures on cover of the *Product Instructions* and inside are schematic diagrams and are for reference only. This *Product Instructions* is part of the vehicle. Please keep it on the vehicle at all times. If you sell or lease this vehicle, please hand over this *Product Instructions* to the new owner. The contents contained in this *Product Instructions* are the latest information at the time of publication. If the subsequent changes in the content need to be notified to the owner, Yutong Company will make supplementary notifications in accordance with relevant regulations.

If you have any question or want to learn other details not

Foreword

mentioned in the data provided with the vehicles, please contact us via contact information shown on the cover of the *Product Instructions*.

Best wishes for you!

Zhengzhou Yutong Group Co., Ltd.

Instruction for use

Standard operation

Please read this *Product Instructions* carefully, understand the important safety information and precautions of the vehicle, and use the vehicle according to the requirements. This *Product Instructions* cannot list all safety information related to the vehicle, therefore, please make a correct judgment of possible dangers based on the actual situation.

Please operate in accordance with the requirements in the *Product Instructions*. If you operate in violation of regulations or use parts that are not approved by the company or accept repair services that are not authorized by the company, for all the consequences therefrom, Yutong Company cannot provide any guarantee and will not bear any responsibility.

Safety tips

Symbol	Meaning
	Notice: Failure to follow such precautions to perform the required operation or performing the prohibited operation may result in vehicle damage.

Instruction for use

Symbol	Meaning
	Warning: Failure to follow such warning information to perform the required operation or performing the prohibited operation may result in general accidents or personal injury.
	Danger: Failure to follow such danger information to perform the required operation or performing the prohibited operation may result in accidents, serious personal injury or even death.
	Environmental protection: Failure to follow such environmental protection precautions may result in environmental damage . During vehicle operation or maintenance, the operation process has no harm or little harm to environment and is good for regeneration and recycling of resources.

This vehicle is a battery electric vehicle, and the working principles and characteristics of many components and systems are significantly different from that of traditional fuel vehicles. Therefore, it is important to carefully read the prompts and precautions in this *Product Instructions* to ensure your personal safety and the safe use of the vehicle. Ignoring these prompts may cause serious consequences for the safety of the driver and passengers and the performance of the vehicle, and may also result in the loss of your maintenance or warranty rights.

High-voltage component

This vehicle contains high-voltage components, and never touch high-voltage components with bare hands without disconnecting the high-voltage power. High-voltage components include the traction motor controller, power wiring harness device, on-board charger, high-voltage cable, traction battery, traction motor, charging socket. In addition, high-voltage components include electric A/C related components, defroster, heater, air compressor, etc. The high-voltage cables inside the vehicle are wrapped in orange bellows, please pay attention to recognizing.

The operation, repair and maintenance of high-voltage components must be carried out by professional personnel and strictly comply with the electrician safety operation rules. Users must not repair, disassemble, remove or replace high-voltage components, cables or connectors without authorization. High-voltage components refer to power components or circuits whose maximum operating AC voltage is above 30V and less than or equal to 1000V, or maximum operating DC voltage is above 60V and less than or equal to 1500V. Professional personnel refers to qualified electricians who have obtained a certificate issued by the local power authority to operate Class B voltage circuits. Class B voltage circuit is the circuit whose maximum operating voltage U meets the following requirements: 60V (DC) $<U \leq 1500V$ (DC) or 30V (AC) (RMS) $<U \leq 1000V$ (AC) (RMS).

High-voltage identification

Symbol	Meaning
	Those marked with this sign are high-voltage system components or high-voltage system components under the covering, indicating that the event described here is related to the high-voltage circuit of battery electric vehicle. It is necessary to strictly follow the requirements and precautions for high-voltage component operation, otherwise it may cause electric shock or more serious injury.
	All orange cables are high-voltage cables.

Treatment of Waste

Battery recycling

The main waste of battery electric vehicle is traction battery, which contains toxic heavy metals and other chemicals. Therefore, the recycling and reuse of batteries are very important. Local governments and environmental protection agencies have formulated relevant regulations and standards for battery recycling, requiring manufacturers and consumers to hand over discarded batteries to legitimate recycling institutions for disposal.

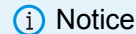
Overall disposal

When the battery electric vehicle reaches the time limit for scrapping or cannot be repaired, the entire vehicle needs to be scrapped. According to regulations in different regions, the

treatment methods for scrapped vehicles may include dismantling, decomposition and recycling. The goal of treatment of scrapped vehicles is to maximize the recycling and reuse of materials and reduce their impact on the environment.

Treatment of other waste

Battery electric vehicle will also generate some other waste, such as waste oil, waste liquid, waste tires, etc. These wastes need to be disposed of reasonably according to local regulations. For example, waste oil can be processed by professional waste oil recycling companies, waste liquid can be processed by treatment equipment, and waste tires can be handed over to qualified waste tire recycling institutions for treatment.



The requirements for the treatment of battery electric vehicle wastes may vary in different regions and countries. Therefore, when disposing of wastes, local regulations and requirements should be followed to ensure that the waste can be disposed of in a reasonable, safe and environmentally friendly manner.

Environmental protection

With the increasing attention to environmental problems, the environmental advantages and carbon emission reduction effects of battery electric vehicle have attracted much attention as a clean energy transportation tool. Compared to traditional fuel vehicles, battery electric vehicle has significant environmental protection advantages and carbon emission reduction effects. This article will explore the environmental advantages and carbon emission reduction effects of battery electric vehicle.

Reduction of noise pollution

Traditional fuel vehicle generates engine noise and exhaust noise during driving, while battery electric vehicle does not have an engine and exhaust pipe, so the noise during driving is very low. This has a positive impact on improving the urban environment

and reducing noise pollution.

Efficient utilization of energy

Battery electric vehicle directly relies on electric energy to drive the motor, and the energy conversion efficiency is much higher than that of traditional fuel vehicles. Traditional fuel vehicles require the conversion of chemical energy into mechanical energy, and energy loss is inevitable in this process. The process of converting electric energy into mechanical energy is very efficient, reducing energy loss and improving energy utilization efficiency. The efficient utilization of energy in battery electric vehicle not only reduces energy waste, but also lowers energy consumption and operating costs. Compared to traditional fuel vehicles, battery electric vehicle has higher energy utilization efficiency, and the conversion and use of electric energy are more

efficient. In addition, the maintenance cost of battery electric vehicle is relatively low, and there is no need to regularly replace parts and components such as engine oil and filters, which also reduces the cost of routine maintenance and repair.

Original Parts of Yutong

Spare parts replacement

- Consult with Yutong central station and Yutong authorized dealer before purchasing parts.
- Use parts with the same performance and quality as original ones. In order to ensure vehicle driving safety, you are recommended to obtain parts from Yutong central station and Yutong authorized dealer and have them replace the parts, to guarantee reliability, safety and applicability of the product.



Danger

If the part replaced and used is inconsistent with the original one, vehicle fire, personal injury or even death could be caused in severe conditions.

Storage and use of vehicle

Vehicle storage lasting for more than 15 days can be divided into short-term storage (15~ 90 days) and long-term storage (above 90 days) according to the storage duration.

Warning

- The vehicle should not be stored for a long period of time. Long-term parking will change the characteristics of vehicle parts, reducing the safety performance of the vehicle, shortening the life cycle of the vehicle and increasing the cost of vehicle operation.
- Inspection and maintenance as required can only slow down deterioration of vehicle parts caused by long-term storage, but cannot resolve the vehicle safety problems caused by change of characteristics of the parts due to long-term storage.

To store the vehicle, the following storage requirements must be met

Requirements on storage location

- Store the vehicle in a special parking lot. The parking lot should be far away from petrol station, natural gas station, hydrogen fueling station, high voltage grid, combustion source, moisture, and corrosive gas, area with flammable and explosive substances

stacked.

- The storage area should not occupy emergency channel. Besides, prevent other sharp or moving objects from impacting or squeezing the battery electric vehicle.
- The parking lot shall be well drained without ponding. In extreme cases, the depth of ponding shall not exceed 250 mm.
- Within 10 m of the parking lot, never carry out metal cutting, welding or grinding.
- The parking lot should be equipped with proper firefighting facilities. The location of firefighting equipment should guarantee immediate and easy access of such equipment in case of a fire.
- The parking lot should be equipped with sufficient water for firefighting.
- Vehicles should be parked at a reasonable distance (the finished vehicle should be kept at about 5m from the enclosure wall, the distance between the vehicles should be kept at 0.5m, and the vehicle can be driven out directly for easy evacuation).
- Vehicles stored for a long time, vehicles to be scrapped and vehicles for faulty repair should be parked in separate designated areas, away from normal used vehicles.
- Never occupy the emergency channel. In order to prevent the secondary impact of accidents, it is recommended that the parking lot should be far away from residential areas or crowded areas.

SOC requirements of traction battery

Storage and use of vehicle

- SOC is within 40% - 70%.
- The SOC of the vehicle to be scrapped shall not exceed 30%.

Danger

- During vehicle storage, if SOC of the battery exceeds 70%, the capacity of the traction battery decays rapidly. In some cases, even traction battery smoke, fire and other safety accidents can be caused.
- If the SOC is less than 40% when the battery of a vehicle not to be used in a long time is stored, it may cause the over-discharging of battery. Irreversible battery damage could be caused, even leading to safety risk.
- To store a vehicle to be scrapped, if the traction battery SOC is high, the safety risk will increase. Under extreme conditions, traction battery smoking, fire and other safety accidents may occur.
- Never consume power abnormally as below: depress the accelerator pedal to drive the vehicle while apply the brake switch synchronously, such as pulling the parking brake or depressing the brake pedal or doing both. The abnormal way of power consumption is likely to cause the tires and other components to smoke and catch fire, which will lead to accidents such as battery and vehicle fire, personal injury, death and other safety accidents.

Storage temperature requirements

- The storage temperature shall be between -35°C and 45°C.
- If the temperature is lower than -35°C, the vehicle must be stored in a warm garage.
- If the temperature exceeds 45°C, the vehicle must be stored at a sunshade area or a garage.

 Notice

- If the environment temperature is lower than -35°C and the vehicle is not stored in a warm garage, it will cause irreversible damage to the traction battery, or even a safety risk.
- If the environment temperature is higher than 45°C, and the vehicle is not stored in a sunshade area or inside a garage, irreversible harm or damage of traction battery will be caused, and there is even safety risk.

Requirements before parking

- Turn off all the electric switches, and press the ENGINE START STOP switch to power off the vehicle, close the windows, lock the doors and compartment doors, and turn off the power handle switch.

 Notice

When a vehicle is stored, never unplug the service disconnect on the traction battery. Otherwise, BMS (battery management system) monitoring function will fail, and the battery status cannot be monitored in real time and the warning cannot be given in time.

- Requirements on monitoring of storage location
- Video monitoring and regular personnel inspection mechanism should be set in the parking lot.

Vehicles stored for 180 days (6 months) and above

- For vehicle stored for 180 days, after maintaining the traction battery, the battery pack shall be removed from vehicle to ensure battery safety (completed within one month). Have it removed by professional personnel under guidance of Yutong authorized service personnel, or contact Yutong customer service manager to operate.
- The traction battery should be properly stored in a dedicated warehouse.
- With the last battery maintenance time before removing the battery as the starting time, the traction battery cell voltage shall be checked by professional personnel every month under the guidance of Yutong authorized service personnel, and battery balance maintenance shall be carried out every 3 months.

- When resuming operation, the traction battery shall be installed by professional personnel under the guidance of Yutong authorized service personnel. And then the traction battery system shall be maintained according to the “requirements before the vehicle is started up after a long period of storage”, and the air tightness shall be checked. If the customer does not have the ability for installation and maintenance, please contact the Yutong authorized service personnel in time.
- Before the vehicle is formally put into operation again, a comprehensive maintenance should be carried out according to the requirements in *Maintenance Manual* provided.

After the traction battery is removed from the vehicle, it shall be stored in a dedicated warehouse. Requirements on warehouse and storage are as follows:

- The warehouse shall comply with national laws and regulations on environmental protection and fire control.
- The warehouse shall be within -35°C~45°C, spacious, flat and safe, far away from petrol station, natural gas station, hydrogen fueling station, dangerous machinery and equipment, combustion source, heat source, moisture, corrosive gas, areas with flammable and explosive substances stacked and so on.
- In addition, it should be away from residential areas and other crowded areas.
- The warehouse should be dry, clean, well ventilated and well drained without ponding.
- Proper firefighting facilities should be equipped.
- Place the traction battery on flat surface. Never stack them or place them upside down. Never lay the battery on the ground

horizontally. Keep the battery free from mechanical impact, squeeze or heavy pressure. Do not expose the battery to sunshine, rain or snow. Keep the battery away from liquid and harmful substances. It is recommended to keep the battery over 5m away from other objects. Never perform metal cutting, welding, or grinding within 10 m from the traction battery to avoid safety accidents such as smoke, fire, etc.

- For the removed traction battery, immediately unplug the manual service disconnect on it and safely store in the designated area.

The storage area should be clearly marked with prominent safety warning signs, clearly indicating “High voltage danger, non professional personnel are strictly prohibited from approaching”, to ensure that unrelated personnel stay away from potential hazards.

- Video monitoring and regular personnel inspection mechanism should be set in traction battery storage area.

Requirements for short-term storage of vehicle:

(Storage duration: 15 to 90 days)

Inspection during storage

Assembly/Parts and components	Inspection item	Technical requirements	Inspection interval
Combination Instrument	Combination instrument indication signal	Start the vehicle. Visually inspect that no fault warning indicator or code is displayed on the combination instrument. If there is any fault warnings, please contact Yutong authorized service personnel in time.	Monthly
Battery	Battery	The battery is not undervoltage. Battery undervoltage indicator is not displayed.	Monthly
A/C	Condenser fan and	All parts of the condenser are fixed	Monthly

Storage and use of vehicle

Assembly/Parts and components	Inspection item	Technical requirements	Inspection interval
A/C	condenser	firmly. The condenser fan is free from sundries and its function is normal. The condenser is clean.	Monthly
Vehicle	Drive the vehicle	Drive the vehicle over 5km, to make all moving fitting surfaces lubricated evenly.	Monthly
Fluid pipelines, air pipelines	Fluid pipelines, air pipelines	Visually inspect that there is no seeping in the fluid pipelines, and inspect that there is no seeping in the air pipelines.	Monthly
Vehicle doors and windows	Open vehicle doors and windows for ventilation	Open the vehicle doors and windows to ventilate for 0.5h. Keep	Monthly

Assembly/Parts and components	Inspection item	Technical requirements	Inspection interval
Vehicle doors and windows	Open vehicle doors and windows for ventilation	the interior of the vehicle dry and odorless.	Monthly

 Danger

- Failure to check as required may result in vehicle fault, fire or even personal injury or death.
- Inspection before resuming use after short-term storage

Assembly/Parts and components	Inspection item	Technical requirements
Combination Instrument	Combination instrument indication signal, operation and control switch	When the vehicle is in “ON” gear status, the vehicle can start normally, and there is no fault warning information on combination instrument. Otherwise, never drive, please contact Yutong authorized service personnel in time.

Storage and use of vehicle

Assembly/Parts and components	Inspection item	Technical requirements
A/C	Condenser fan and condenser	All parts of the condenser are fixed firmly. The condenser fan is free from sundries and its function is normal. The condenser is clean.
	A/C compressor, control panel, air outlet	The A/C should operate normally and the A/C control panel should display normally without a fault code. If the A/C is abnormal, please contact Yutong authorized service personnel in time.
	Air outlet	All air outlets in the driver cabin supply air normally, and the interior temperature changes significantly. If the A/C is abnormal, please contact Yutong authorized service personnel in time.
	High-voltage IPT connector	Check that the bolts of the high-voltage IPT connector are

Assembly/Parts and components	Inspection item	Technical requirements
Motor controller	High-voltage IPT connector	not loose and do not fall off, and the spring washer is flattened without cracks. If any, never drive, contact Yutong authorized service personnel.
	High-voltage connector	Visually check whether the high-voltage connector of the motor controller falls off. Gently pull the connector to check whether the lock pin is firmly locked in place. If the connector falls off or does not lock in place, never drive, contact Yutong authorized service personnel.
	Motor controller and its junction box	1. Visually check that the appearance of the motor controller and its junction box is clean and free of dirt. If any dirt, never drive, contact Yutong authorized service personnel. 2. Visually inspect that appearance of motor controller is

Storage and use of vehicle

Assembly/Parts and components	Inspection item	Technical requirements
	Motor controller and its junction box	not cracked or deformed; bolt on cover plate of junction box is free of looseness or falling off. If any, never drive, contact Yutong authorized service personnel.
	Vent valve	1. Visually inspect that vent valve is not cracked, deformed or loose. If any, never drive, contact Yutong authorized service personnel. 2. The vent hole is not blocked by foreign objects. If any, never drive, contact Yutong authorized service personnel.
	Low-voltage connectors	Visually inspect the low-voltage connectors of the motor controller are not damaged, cracked, fallen off or poorly connected. If any, never drive, contact Yutong authorized service personnel.

Assembly/Parts and components	Inspection item	Technical requirements
Grease	Grease filling point	Refill corresponding grease for the left and right steering knuckle kingpins, tie rod ball pins, front and rear drag link ball pins, steering tie rod intermediate rocker arm pivot, automatic brake clearance adjusting arms of front and rear axles, front and rear axle brake camshafts, etc. (If centralized lubrication is used in the above parts, this item can be neglected)
Traction battery system	Traction battery balance maintenance	For the first use, a "Traction Battery Balance Maintenance" should be carried out.
	Traction battery appearance	1. Appearance of traction battery is not deformed or damaged and there is no corrosion, leakage or peculiar smell; the traction battery protective cover is not damaged.

Storage and use of vehicle

Assembly/Parts and components	Inspection item	Technical requirements
Traction battery system	Traction battery appearance	2. Surface of battery pack is free from muddy water.
	Pressure relief valve or balance valve of traction battery	1. The appearance of pressure relief valve or balance valve of traction battery is not cracked or damaged. 2. The appearance of pressure relief valve or balance valve of traction battery is free of dirt or dust.
	Manual service disconnect on the traction battery	1. Visually check the manual service disconnect for crack, damage, ablation and other abnormal conditions. If any, never drive, contact Yutong authorized service personnel to handle. 2. Visually inspect whether there is a foreign object in the base of the manual service disconnect on the traction

Assembly/Parts and components	Inspection item	Technical requirements
Traction battery system	Manual service disconnect on the traction battery	battery. If any, please contact Yutong authorized service personnel in time. 3. Visually inspect whether the manual service disconnect on the traction battery is installed in place. If it is not installed in place, please contact Yutong authorized service personnel in time.
	Tightening bolts connecting the traction battery to the frame, tightening bolts/nuts of ground wire	Check the following items: tightening bolts connecting the traction battery to the frame; tightening bolts/nuts of ground wire; washers of all bolts are flattened without cracking, red mark lines do not mismatch, all bolts do not break or crack. If it is not in conformity with the requirements, never drive, contact Yutong authorized service personnel.

Storage and use of vehicle

Assembly/Parts and components	Inspection item	Technical requirements
Traction battery system	Cable gland of high-voltage connector (if equipped)	Check whether the cable gland of the high-voltage connector of the traction battery system is tightened fully. If it is not tightened fully, never drive, contact Yutong authorized service personnel.
	High-voltage and low-voltage connectors (if equipped)	Check that the high-voltage/low-voltage connector of the traction battery system is free of looseness, not damaged, cracked or ablated. If any, never drive, contact Yutong authorized service personnel.
	High-voltage and low-voltage wiring harness	Check that the traction battery high/low-voltage wiring harnesses are not damaged, worn, ablated or aging. If any, never drive, contact Yutong authorized service personnel.

Assembly/Parts and components	Inspection item	Technical requirements
Traction battery system	Traction battery compartment	Check that the drain hole of the battery compartment is not blocked by foreign matter, and there is no foreign matter in the battery compartment. If any, never drive, contact Yutong authorized service personnel.
	Water pipelines of liquid cooling traction battery	Visually inspect that water pipe connection areas in liquid cooling traction battery do not leak. Exposed water pipe is not bent or twisted, which may affect the water circulation. The exposed water pipe is not damaged. The expansion tank is not leaking and the liquid level inside the tank is normal. If any, never drive, contact Yutong authorized service personnel.

 Danger

Failure to check as required may result in vehicle fault, fire or even personal injury or death.

Requirements for long-term storage vehicles

Vehicle stored for 90 to 180 days

Inspection during storage

Assembly/Parts and components	Inspection item	Technical requirements	Inspection interval
Combination Instrument	Combination instrument indication signal	Start the vehicle. Visually inspect that no fault warning indicator or code is displayed on the combination instrument. If there is any fault warnings, please contact Yutong authorized service personnel in time.	Monthly

Assembly/Parts and components	Inspection item	Technical requirements	Inspection interval
Battery	Battery	The battery is not undervoltage. Battery undervoltage indicator is not displayed.	Monthly
A/C	Condenser fan and condenser	All parts of the condenser are fixed firmly. The condenser fan is free from sundries and its function is normal. The condenser is clean.	Monthly
Vehicle	Drive the vehicle	Drive the vehicle over 5km, to make all moving fitting surfaces lubricated evenly.	Monthly
Fluid pipelines, air pipelines	Fluid pipelines, air pipelines	Visually inspect that there is no seeping in the fluid pipelines, and	Monthly

Storage and use of vehicle

Assembly/Parts and components	Inspection item	Technical requirements	Inspection interval
Fluid pipelines, air pipelines	Fluid pipelines, air pipelines	inspect that there is no seeping in the air pipelines.	Monthly
Vehicle doors and windows	Open vehicle doors and windows for ventilation	Open the vehicle doors and windows to ventilate for 0.5h. Keep the interior of the vehicle dry and odorless.	Monthly
A/C	A/C, A/C control panel	Turn on the A/C and make it operate for 15min. Check that the A/C operates normally and the A/C control panel displays information normally.	Every 3 months
	A/C air outlet	Turn on the A/C and make it	Every 3 months

Assembly/Parts and components	Inspection item	Technical requirements	Inspection interval
A/C	A/C air outlet	operate for 15min. All air outlets in the driver cabin supply air normally, and the interior temperature changes significantly.	Every 3 months
Traction battery system	Traction battery balance maintenance	Traction battery balance maintenance	Every 3 months
	Traction battery appearance	1. Appearance of traction battery is not deformed or damaged and there is no corrosion, leakage or peculiar smell; the traction battery protective cover is not damaged.	Every 6 months

Storage and use of vehicle

Assembly/Parts and components	Inspection item	Technical requirements	Inspection interval
Traction battery system	Traction battery appearance	2. Surface of battery pack is free from muddy water.	Every 6 months
	Pressure relief valve or balance valve of traction battery	1. The appearance of pressure relief valve or balance valve of traction battery is free of dirt or dust. 2. The appearance of pressure relief valve or balance valve of traction battery is not cracked or damaged.	Every 6 months
	Fasteners	Check the following items: tightening bolts connecting the	Every 6 months

Assembly/Parts and components	Inspection item	Technical requirements	Inspection interval
Traction battery system	Fasteners	traction battery to the frame; tightening bolts/nuts of ground wire; washers of all bolts are flattened without cracking, red mark lines do not mismatch, all bolts do not break or crack.	Every 6 months
	Cable gland of high-voltage connector (if equipped)	Check whether the cable gland of the high-voltage connector of the traction battery system is tightened fully.	Every 6 months
	High-voltage and low-voltage connectors (if	Check that the high-voltage/low-voltage connector of the traction battery system is free of	Every 6 months

Storage and use of vehicle

Assembly/Parts and components	Inspection item	Technical requirements	Inspection interval
Traction battery system	equipped)	looseness, not damaged, cracked or ablated.	Every 6 months
	High-voltage and low-voltage wiring harness	Check that the traction battery high/low-voltage wiring harnesses are not damaged, worn, ablated or aging.	Every 6 months
	Traction battery compartment	Check that the drain hole of the battery compartment is not blocked by foreign matter, and there is no foreign matter in the battery compartment.	Every 6 months
	Water pipes of	Visually inspect that water pipe	Every 6 months

Assembly/Parts and components	Inspection item	Technical requirements	Inspection interval
Traction battery system	liquid cooling battery	connection areas in liquid cooling traction battery do not leak. Exposed water pipe is not bent or twisted, which may affect the water circulation. The exposed water pipe is not damaged. The expansion tank is not leaking and the liquid level inside the tank is normal.	Every 6 months
	Manual service disconnect on the traction battery	1. The housing of manual service disconnect on the traction battery is in good condition. The plug handle is in good	Every 6 months

Storage and use of vehicle

Assembly/Parts and components	Inspection item	Technical requirements	Inspection interval
Traction battery system	Manual service disconnect on the traction battery	condition without fracture. 2. The fuse of manual service disconnect on the traction battery is in good condition. The pins are not damaged, ablated or corroded. 3. There is no foreign object in the base of the manual service disconnect on the traction battery. 4. Manual service disconnect on the traction battery is plugged in place, free of looseness.	Every 6 months

Assembly/Parts and components	Inspection item	Technical requirements	Inspection interval
Traction motor	High-voltage locking head	Check that the distance between locking nut end face and flange end face is less than 1mm, the internal rubber ring tightly holds the wiring harness and the mark line does not mismatch. If it is not in conformity with the requirements, never drive, contact Yutong authorized service personnel.	Every 6 months

 Danger

Failure to check as required may result in vehicle fault, fire or even personal injury or death.

- Inspection before activation after long-term storage

Assembly/Parts and components	Inspection item	Technical requirements
Combination Instrument	Combination instrument indication signal, operation and control switch	When the vehicle is in “ON” gear status, the vehicle can start normally, and there is no fault warning information on combination instrument. Otherwise, never drive, contact Yutong authorized service personnel.
A/C	Condenser fan and condenser	All parts of the condenser are fixed firmly. The condenser fan is free from sundries and its function is normal. The condenser is clean.
Traction battery system	Traction battery balance maintenance	For the first use, a “Traction Battery Balance Maintenance” should be carried out.
	Traction battery appearance	1. Appearance of traction battery is not deformed or damaged and there is no corrosion, leakage or peculiar

Assembly/Parts and components	Inspection item	Technical requirements
Traction battery system	Traction battery appearance	smell; the traction battery protective cover is not damaged. 2. Surface of battery pack is free from muddy water.
	Manual service disconnect on the traction battery	1. Visually check the manual service disconnect for crack, damage, ablation and other abnormal conditions. If any, never drive, contact Yutong authorized service personnel. 2. Visually inspect whether there is a foreign object in the base of the manual service disconnect on the traction battery. If any, please contact Yutong authorized service personnel in time.
	Pressure relief valve or balance valve of traction	1. Visually inspect whether the appearance of pressure relief valve or balance valve of traction battery is

Assembly/Parts and components	Inspection item	Technical requirements
Traction battery system	battery	cracked or damaged. If any, never drive, contact Yutong authorized service personnel. 2. Visually inspect whether the appearance of pressure relief valve or balance valve of traction battery is free from dirt or dust. If any, please contact Yutong authorized service personnel in time.
	Tightening bolts connecting the traction battery to the frame, tightening bolts/nuts of ground wire	Check the following items: tightening bolts connecting the traction battery to the frame; tightening bolts/nuts of ground wire; washers of all bolts are flattened without cracking, red mark lines do not mismatch, all bolts do not break or crack. If it is not in conformity with the requirements, never drive, contact Yutong authorized service personnel.

Assembly/Parts and components	Inspection item	Technical requirements
Traction battery system	Cable gland of high-voltage connector (if equipped)	Check whether the cable gland of the high-voltage connector of the traction battery system is tightened fully. If it is not tightened fully, never drive, contact Yutong authorized service personnel.
	High-voltage and low-voltage connectors (if equipped)	Check that the high-voltage/low-voltage connector of the traction battery system is free of looseness, not damaged, cracked or ablated. If any, never drive, contact Yutong authorized service personnel.
	High-voltage and low-voltage wiring harness	Check that the traction battery high/low-voltage wiring harnesses are not damaged, worn, ablated or aging. If any, never drive, contact Yutong authorized service personnel.
	Traction battery compartment	Check that the drain hole of the battery compartment is not

Assembly/Parts and components	Inspection item	Technical requirements
Traction battery system	Traction battery compartment	blocked by foreign matter, and there is no foreign matter in the battery compartment. If any, never drive, contact Yutong authorized service personnel.
	Water pipelines of liquid cooling traction battery	Visually inspect that water pipe connection areas in liquid cooling traction battery do not leak. Exposed water pipe is not bent or twisted, which may affect the water circulation. The exposed water pipe is not damaged. The expansion tank is not leaking and the liquid level inside the tank is normal. If any, never drive, contact Yutong authorized service personnel.
	Traction battery air tightness check	According to the traction battery air tightness test method and standard. Airtightness check is a professional operation. Never drive, contact Yutong authorized service

Assembly/Parts and components	Inspection item	Technical requirements
Traction battery system	Traction battery air tightness check	personnel.
Traction motor	Start and operate the vehicle to check traction motor	After the traction motor runs (the vehicle operates) for more than 15min, the vehicle runs normally.
	High-voltage locking head	Check that the distance between locking nut end face and flange end face is less than 1mm, the internal rubber ring tightly holds the wiring harness and the mark line does not mismatch. If it is not in conformity with the requirements, never drive, contact Yutong authorized service personnel.
	Appearance of traction motor	1. Appearance of the traction motor is clean and free from dirt. If any dirt, please contact Yutong authorized

Assembly/Parts and components	Inspection item	Technical requirements
Traction motor	Appearance of traction motor	service personnel in time. 2. Appearance of the traction motor is not cracked or deformed. If any, never drive, contact Yutong authorized service personnel. 3. Bolts on cover plate of junction box are not loose or does not fall off. In case of falling off, please contact Yutong authorized service personnel in time. 4. The output shaft and the mud protection structure are free of mud and debris accumulation. If any, please contact Yutong authorized service personnel in time.
	Vent valve	1. Visually inspect that vent valve is not cracked, deformed or loose. If any, never drive, contact Yutong authorized service personnel.

Assembly/Parts and components	Inspection item	Technical requirements
	Vent valve	2. The vent hole is not blocked by foreign objects. If any, never drive, contact Yutong authorized service personnel.
Low-voltage wiring harness	Appearance of low-voltage connectors	The connectors are not damaged and free from foreign objects. The connectors are connected firmly. Check that the connector housing has no cracks or other abnormal conditions. Gently pull connectors to check the buckle is firmly locked in place.
Motor controller	High-voltage IPT connector	Check that the bolts of the high-voltage IPT connector are not loose and do not fall off, and the spring washer is flattened without cracks. If any, never drive, contact Yutong authorized service personnel.

Assembly/Parts and components	Inspection item	Technical requirements
Motor controller	High-voltage connector	Visually check whether the high-voltage connector of the motor controller falls off. Gently pull the connector to check whether the lock pin is firmly locked in place. If the connector falls off or does not lock in place, never drive, contact Yutong authorized service personnel.
	The appearance of motor controller	1. Visually check that the appearance of the motor controller and its junction box is clean and free of dirt. If any dirt, please contact Yutong authorized service personnel in time. 2. Visually inspect that appearance of motor controller is not cracked or deformed; bolt on cover plate of junction box is free of looseness or falling off. If any, never drive, contact Yutong authorized service personnel.

Assembly/Parts and components	Inspection item	Technical requirements
Motor controller	Vent valve	1. Visually inspect that vent valve is not cracked, deformed or loose. If any, never drive, contact Yutong authorized service personnel. 2. The vent hole is not blocked by foreign objects. If any, never drive, contact Yutong authorized service personnel.
	Low-voltage connectors	Visually inspect the low-voltage connectors of the motor controller are not damaged, cracked, fallen off or poorly connected. If any, never drive, contact Yutong authorized service personnel.
Grease	Grease filling point	Refill corresponding grease for the left and right steering knuckle kingpins, tie rod ball pins, front and rear drag link ball pins, steering tie rod intermediate rocker arm pivot,

Storage and use of vehicle

Assembly/Parts and components	Inspection item	Technical requirements
Grease	Grease filling point	automatic brake clearance adjusting arms of front and rear axles, front and rear axle brake camshafts, etc. (If centralized lubrication is used in the above parts, this item can be neglected)
Vehicle	Maintenance	Comprehensive maintenance should be carried out according to the requirements in the <i>Maintenance Manual</i> provided.



Danger

Failure to check as required may result in vehicle faults, fire or even personal injury or death.

Safety of new energy system

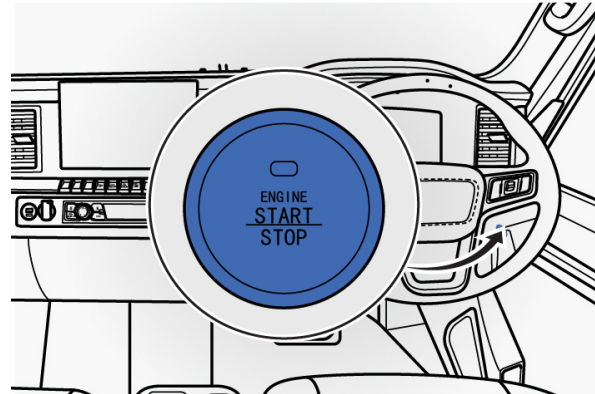


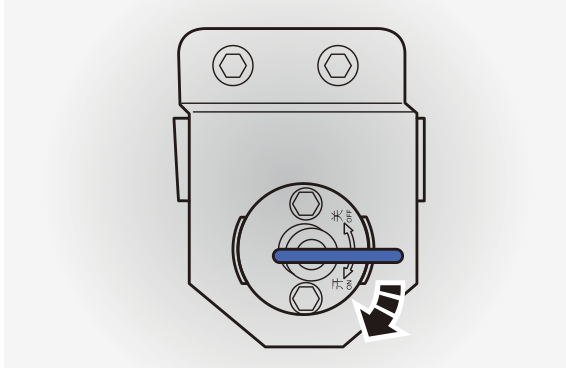
Operation qualification on new energy system maintenance

Maintenance of new energy system high-voltage circuits must be performed by professional personnel who has valid special operation certificates for electricians in strict accordance with safe operation regulations for electricians. Non-professional maintenance personnel must not touch high-voltage electrical elements.

Safety preparations before maintenance

When relevant personnel carry out routine maintenance and other operations on vehicles, except for maintenance items such as battery balance maintenance and air compressor fan inspection that require power on inspection, the following five operations must be carried out in sequence before the implementation of other maintenance items:





1. Turn off the switch to shut down the vehicle. Disconnect the mechanical master power switch on the battery.
2. Disconnect the manual service disconnect on the traction battery.
3. After 15min from power-off, use a multimeter to confirm that the voltage at the positive and negative terminals of the high-voltage input of the assembly to be maintained is less than

36V.

Requirements on operation environment

The operation environment should be ventilated, cool, rainproof, and free from corrosive gas, explosive gas, insulation-destroying gas, and conductive dust. This environment should also be kept far away from combustion source, heat source, dangerous machinery and equipment, inflammable and explosive substance, and corrosive chemicals, as well as equipped with necessary fire-fighting facilities.

Warning on maintenance of high-voltage components

When maintaining high-voltage components, professional personnel should wear insulating gloves during operation. Never wear metal trimmings such as jewelry or watches. When using a metal tool, make sure to completely protect one end of the tool handle with insulating tape to prevent the tool from becoming a

short-circuit conductor and causing a danger; a working area with the radius no less than 5m should be set up and irrelevant persons must be kept away.

Danger

All orange wires of the vehicle are high-voltage wiring harnesses. All components connected to high-voltage wiring harnesses are high-voltage components. Do not touch high-voltage wiring harnesses and component at will. Otherwise, there may be a risk of high-voltage electric shock.

Safety on maintenance of high-voltage components



- Tools required for insulation detection: 1000V megameter, 800V multimeter, 1000A clamp meter, insulating tools, insulating gloves, etc. Before using the testing instrument, it is necessary to ensure that it can work properly to avoid high-voltage accidents caused by internal problems in the instrument.
- When checking the motor insulation, the motor connection cable should be separated from the main controller.
- When welding the vehicle, the negative electrode cable on the battery must be disconnected and all low-voltage connectors of

the motor controller, vehicle control unit, ABS, CAN module, BMS and other controllers must be unplugged.

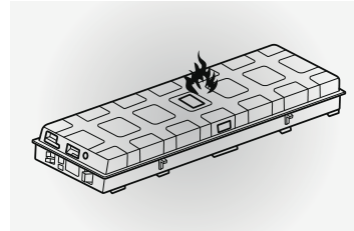
- When working around the motor or under the chassis, be sure to disconnect the negative electrode cable of the battery.
- During general repair, avoid electric leakage due to insulation layer damages of the high-voltage wiring harness.
- When cleaning vehicles, please keep away from the high-voltage components and never directly wash high-voltage components with water gun. Never flush the low-voltage connector and control module with water.

Warning

- When the vehicle is connected to a high-voltage system for charging, operators must not perform any operations and insulation detection at the high-voltage charger and charging port.

- During the insulation detection, the high-voltage capacitors of loads must be discharged to zero, the switch of the traction battery pack is separated, and the high-voltage charger must not be connected.

Fire protection precautions for high-voltage system



Short circuit, poor contact, overload, improper operation and other reasons of electrical circuits or equipment can cause fire caused by electrical appliances or circuits. Therefore, please focus on the following prevention measures:

- Flammable materials are strictly prohibited from approaching all types of high-voltage components and wiring harness connectors.
- Never flush high-voltage components, traction battery, high/low-voltage control module and connectors, etc. with a water gun.
- Never modify/install circuits or electrical equipment, etc. without permission, to avoid circuit overload and damage to the insulation layer of the wiring harness during modification, resulting in a short circuit.
- When replacing electrical elements, select the electronic elements of original Yutong parts to avoid fire caused by leakage of fake and inferior electronic elements.
- Check the environment of the traction battery to ensure there are no foreign objects or abnormal situations.
- When driving, check whether the vehicle emits abnormal noise and odor. If yes, please stop immediately to find out the cause.
- Observe whether the appearance of each visible surface of the traction battery is varied in color or status. In case of yellowing, blackening, bulging, burn marks, etc., please contact Yutong authorized service personnel in time.
- Check whether the protective end cover of the charging socket is intact. If the end cover is damaged, replace it in time. Check whether there is foreign matter or ponding inside the socket. If there is ponding inside, dry it with hot air blower. Do not touch with hands directly to avoid electric shock.
- Check the followings: whether the bracket is bent and deformed; whether the welding seam cracks; whether the flat washer and spring washer of the fixed bolt are intact; whether the spring washer is flattened. Shake the whole bracket with hands and check whether the bracket wobbles or shifts. If the bracket has a problem, stop the vehicle, repair or replace the

bracket.

- Check whether high-voltage wiring harness is too close to the heat source (air outlet of air compressor, etc.). Check the aging status of the wire insulation layer. If the insulation is aged, replace the wiring harness immediately.
- When performing regular maintenance, pay attention to checking the followings: whether fixing point of the electrical circuit is loose and worn; whether the wire is too close to the moving parts; whether the wire is worn; whether the wiring harness protective sleeve is broken or lost. If any, check whether the insulation is damaged immediately. Take tightening measures and protection measures.
- Check whether various high-voltage connectors are loose and whether the contact points contact poorly. If any, tighten in time. Check whether color and status of the insulation layer of the cable at the connector area are abnormal, such as yellowing,

blackening, ablation etc. If any, please contact Yutong authorized service personnel in time.

- Check and clean the top surface of high-voltage components regularly (especially dust and contaminants near contact points). The cleaning process requires standard operation. All high-voltage components, wiring harness fixing points, etc. must be regularly inspected and maintained. If any problem is found, please contact Yutong authorized service personnel in time.

Notice

Please maintain the vehicle according to maintenance requirement on Yutong new energy vehicle.

Precautions for system maintenance

- If maintenance work is performed only on low-voltage electric

appliances under non driving condition, shift the gear to the neutral position while ensuring high-voltage power off, and then perform maintenance according to methods for the normal fuel/gas vehicle (maintenance work on high-voltage powering-on must be done by Yutong authorized service personnel). If only the mechanical device is repaired under non driving condition, operate when the ignition key and power handle switch are turned off.

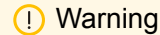
- During general maintenance, avoid electric leakage due to insulation layer damages of high-voltage wiring harnesses.
- During the maintenance process, if it is necessary to remove the high-voltage components, please contact Yutong authorized service personnel in time, disconnect the traction battery connector, and ensure that the high-voltage power supply is cut off before proceeding.
- When cleaning the vehicle, avoid high-voltage/low-voltage

elements. Never flush high-voltage/low-voltage elements directly with water gun.

- The torque at each bolt connection shall be in strict accordance with the requirements of bolt torque.

Traction battery system

A traction battery is high-voltage DC power supply. Because of its high danger, it must be operated by professional repairing personnel, The maintenance process should be carried out in a standardized manner by wearing insulating gloves and using insulating tools. If metal tools are used, be sure to completely protect the end of the tool handle with insulating tape, so as to prevent the tool from becoming a short-circuit conductor, thus avoiding risks.



- Never touch the positive and negative poles of the traction battery with both hands at the same time without taking any insulation measures.
- Never disassemble or assemble any component of the power supply system assembly without authorization.
- Never disassemble or assemble the traction battery or unplug/plug the high/low-voltage terminal connector without authorization.
- Never over-discharge or over-charge the battery.
- Never contact the positive and negative electrodes of the traction battery with metal or conducting wire simultaneously, to prevent a short circuit.
- Never use the traction battery as a load-bearing platform.

- Never expose the traction battery to any fire source.
- During charging, stop charging immediately in case of unpleasant odor or abnormal noise from the traction battery.
- During driving, stop the vehicle for checking immediately in case of unpleasant odor or abnormal noise from the traction battery.
- If this is the case, please contact Yutong authorized service personnel in time and do not disassemble it without authorization to prevent an internal short circuit in traction battery.

Motor and controller

During operation, stop the motor to handle in case of:

- Occurrence of accident of human electric shock;

- Smoke from the motor or controller;
- Violent vibration of the motor;
- Mechanical damage to the load driven by the motor;
- Very hot motor;
- The motor presenting shift moving, shock, eccentric rotor, and sudden drop in speed.

Before performing system maintenance, turn off the ignition key, ensure that the power handle switch is turned to the "OFF" position, and unplug the manual service disconnect on the traction battery.

Warning

- It is prohibited for technicians without professional training to conduct system maintenance.
- Never conduct any maintenance without powering

off.

- It is prohibited for non-professional personnel to remove the junction box of the motor.
- All maintenance operations must be performed 15min after power-off, and never perform maintenance immediately after power-off.

Safety of electric system

Safety precautions for electric system

- Disconnect the power supply from the vehicle to prevent battery undervoltage if the vehicle is not in use for a long time.
- Never use non-original fuse.
- Never replace the fuse with one having not the same specification.
- Never flush the electrical compartment and electrical equipment with water gun.
- Never start the vehicle continuously.
- Never make unauthorized modification of the electric system.
- Never unplug electrical component with power on.
- Never use a water gun to flush the rear tail light, the power handle switch, the rear sealed electric box and the electrical parts in the driver cabin.

Check of fuse and electric box

Regularly check the electric box, if you suspect a fuse blown, check it in accordance with the following procedures:

- Shut down and turn off all electrical switch.
- Open the fuse box and check each fuse. Pull the corresponding fuse outward to pull it out and observe whether it is blown.
- If the fuse is blown, first check whether the wire or electrical equipment is short-circuited. If not, remove a spare fuse of the same amperage from the fuse box and install with a new one, and ensure that the fuse fits well with the seat slot.

Warning

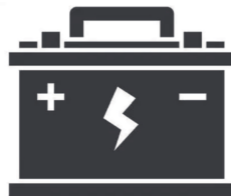
- Never use unsuitable or repaired fuse, which may cause fire and personal injury or even death!
- Never use a fuse with a rated current higher than the

specified value.

- The rated current and size of the new fuse must be exactly the same as those of the original fuse (with the same color and marking).
- Never use any substitute for the fuse.
- If the newly replaced fuse blows again in a short period of time, please contact Yutong authorized service personnel in time.

- Install a new relay.
- If the fault persists after replacement, please contact Yutong authorized service personnel in time.

Battery



- Under normal operating conditions, the battery is almost maintenance-free. However, it is recommended to check the electrolyte level from time to time (if there is a charging status indicator) when the ambient temperature is high or during long-distance daytime driving.
- It is recommended that batteries that are used for more than 3 years should be replaced.

Check whether the relay is plugged firmly regularly. If you suspect that there is damage to the relay, operate in accordance with the following procedures:

- Locate the relay with the corresponding function according to the instruction labels on the electric box, and pull fuse outwards.

Warning

- Handle with special care when performing all operations on a battery.
- There may be risks of injury, erosion, accident and fire when operating the battery and electrical equipment.
- Please wear protecting glasses and do not allow electrolyte or particles containing lead into contact with eyes, skin or clothing.
- Electrolyte of the battery is strongly corrosive. Please wear protective gloves and protecting glasses. Do not turn the battery upside down. Otherwise, the electrolyte will flow out of the vent holes.
- If electrolyte accidentally splashes into the eyes, please rinse with clean water for a few minutes

immediately and seek medical attention immediately. If the electrolyte splashes onto the skin or clothing, immediately neutralize it with soap solution and rinse with plenty of water. If you accidentally swallow electrolyte, please seek medical attention immediately.

- No open flames or electric sparks are allowed around the battery. Never use a unshaded lamp. No smoking. Avoid the use of cables and electrical appliances, and causing electric sparks due to electrostatic discharge. Never short the battery electrodes. High-energy electric sparks may cause injury.
- When the battery is being charged, strong explosive gas mixture will be generated! Please ensure that the

battery charging environment is well ventilated.

- Keep electrolyte and batteries away from children.
- Turn off the ENGINE START STOP switch and all electrical appliances before working on any electrical unit. Disconnect the negative electrode cable from the battery. When replacing a bulb, turn off the corresponding light.
- When removing the battery from the on-board power grid, turn off the ENGINE START STOP switch, then remove the negative terminal cable, and finally remove the positive terminal cable.
- To install the battery, first connect the positive electrode cable and then the negative electrode cable. Never exchange the connecting cables, which may cause fire hazard of cables! Tighten the cable by

6 ± 1 N.M for cable re-installation.

- If the battery freezes or has just thawed, do not charge it, otherwise there is a risk of explosion and injury. If the battery has frozen, replace it in time. The discharged battery will be frozen at about 0°C.
- Never use a damaged battery. Otherwise, explosion may occur. Replace a damaged battery in time.
- Never disconnect the battery while the ENGINE START STOP switch is turned on, which may cause damage to the electrical unit or electrical components.
- Do not directly expose the battery to the sunshine for a long time to avoid damages to the housing caused by ultraviolet.
- When the vehicle is stored for a long time, the battery

needs to be treated with antifreeze to avoid freezing and damage to the battery.

Charge the battery

A well charged battery is a prerequisite for starting a vehicle.

Please read the contents in this section carefully before charging the battery.

- Turn off the ENGINE START STOP switch and all electrical appliances.
- Only when “fast charging”: Disconnect both cables (first the “negative electrode” and then the “positive electrode”).
- Connect the electrode clamp of the charging device to the electrode of the battery according to the operating specifications (red = “positive electrode”, black or brown = “negative electrode”).
- First insert the power supply cable of the charging device into the power supply socket, and then turn on the charging device.
- After charging, turn off the charging device and unplug the power supply cable. Now, remove the electrode clamps of the charging device.
- Reconnect the cable onto the battery (first “positive electrode” and then “negative electrode”).
- When charging with a low current intensity, (e.g. with a low current charging device), usually it is not necessary to disconnect the battery connecting cables. However, be sure to disconnect both cables before “fast charging” at high current intensity. Be sure to observe the instructions of the charging device manufacturer.
- Fast charging of battery is dangerous. The fast charging of battery requires specialized charging device and compliance with relevant regulations. For details, please refer to “Operation

of Battery". Therefore, if fast charging of the battery is required, please contact Yutong authorized service personnel in time.

- A discharged battery may freeze at around 0°C. Be sure to ensure that the battery has thawed before charging. However, it is recommended not to continue to use a thawed battery, which may cause electrolyte leaking from the battery due to housing freezing and cracking.
- When charging, do not open the sealing plug of the battery.
- If the battery will be not used for a long time, it shall be removed from the vehicle, fully charged and stored in a dry, cool, well-ventilated room, and re-charged once a month afterwards,.

 Notice

Never charge a frozen battery. Otherwise, there is a risk of explosion.

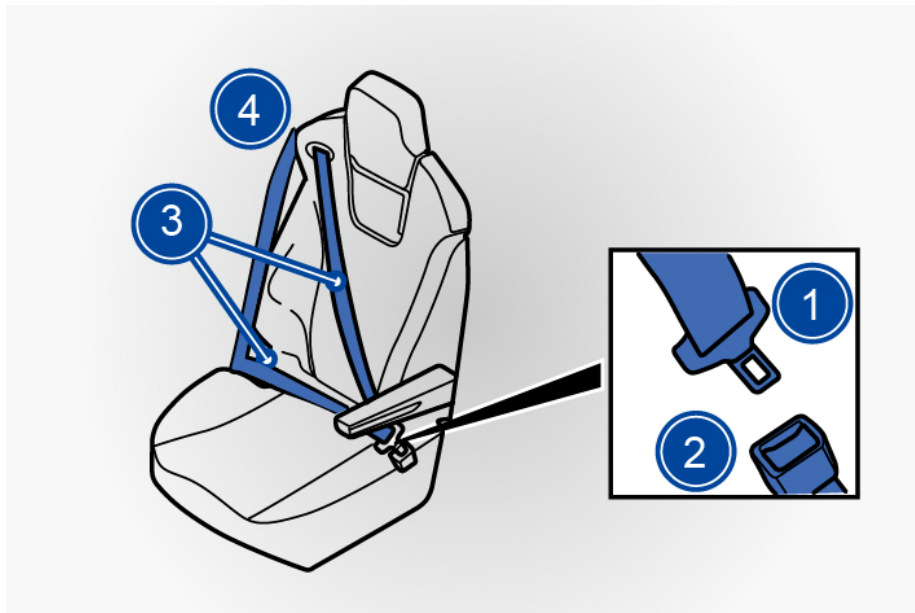
Precautions for use of seat belt

personal injury or death.

In the event of a collision or emergency braking during vehicle operation, the pre-tightening device of the vehicle will quickly tighten, and the seat belt can restrain the occupants in their original positions to prevent them from being thrown out. When the seat belt is tightened to a certain extent, it will be appropriately released to maintain stable chest force for the driver and passengers. Seat belts can effectively play the role of restraint and protection, appropriately resolving the inertia of vehicles during collisions and greatly reducing the degree of injury to driver and passengers. If the seat belt is not worn correctly, the driver is likely to die because of his/her chest hits the steering wheel during a collision, and even due to the lack of restraint from the seat belt, the driver and passengers may directly hit the window under the action of inertia, causing

Type of seat belt

3-point seat belt



Type of seat belt



Buckle tongue



Webbing

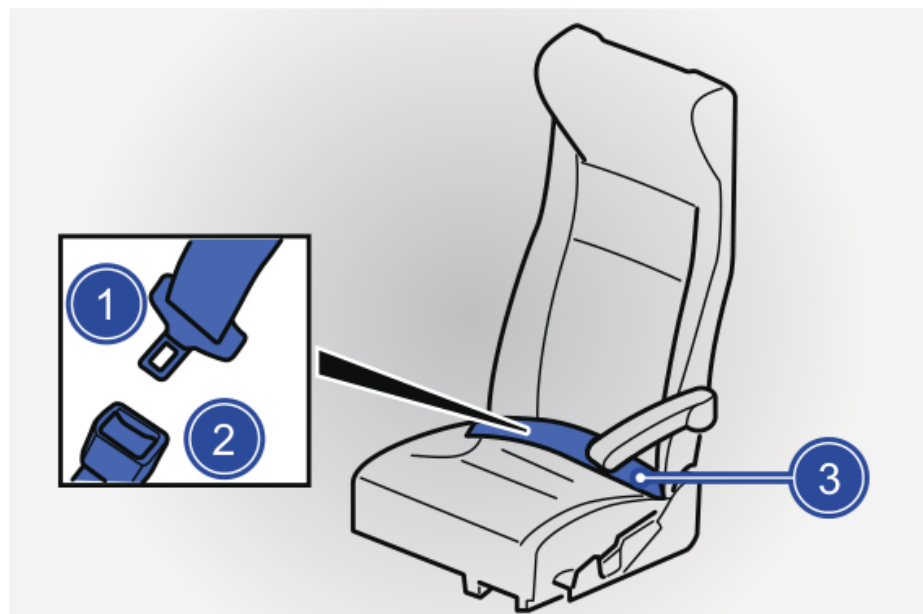


Buckle



Retractor

2-point seat belt



1

Buckle tongue

2

Buckle

3

Webbing

Warning

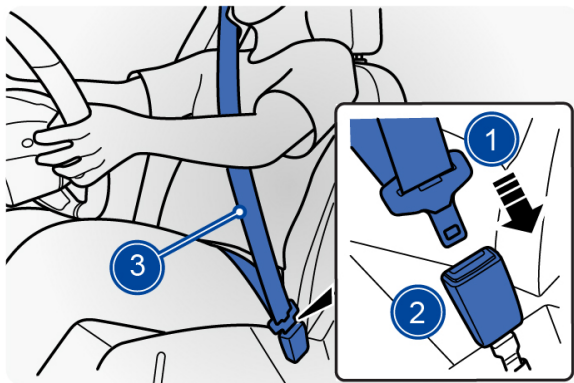
- Never wrap the seat belt around objects with sharp edges, otherwise it may be damaged in an accident.
- Never wear seat belts that have been subjected to strong impacts or have been damaged due to accidents.
- Never remove, disassemble or modify the seat belt.
- Never wear the seat belt with foreign objects inside the lock body.
- Please keep the seat belt clean and do not stick oily or water-based substances such as soil, oil, water, beverages, food residues, etc. to the seat belt to ensure that it can be smoothly pulled out and retracted.
- Never use organic substances such as benzene and gasoline to clean the seat belt, and do not bleach or dye the seat belt.
- Never place anything around the seat belt retractor; otherwise, the seat belt retractor could be damaged.

Notice

- Correctly fasten the seat belt.
- Maintain an upright posture.
- The waist seat belt should be fixed as close as possible to the lower position of the hipbone.

- Never hang the shoulder seat belt around the neck or pass it under the armpit.
- Only wear one seat belt for one person, and it is prohibited for multiple persons (including children) to wear one seat belt at the same time.
- If two or more persons wear one seat belt, in the event of a collision, the seat belt not only fails to disperse the impact, but also poses a risk of two persons colliding with each other.
- The seat belt must not be twisted or loose.

Wear the seat belt



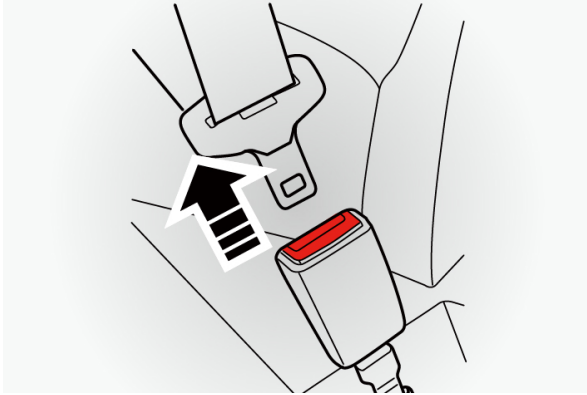
seat belt to check that the buckle tongue is locked in the buckle ②.

Notice

When the driver does not wear the seat belt or fastens it improperly while driving, the vehicle alarms.

1. Hold the buckle tongue ①, slowly pull out the webbing ③ and make it pass across shoulder to chest and hip smoothly. Insert the buckle tongue ① into the seat buckle ② until it makes a “click” sound.
2. Gently pull the webbing ③ or the buckle tongue ① of the

Release the seat belt



1. Hold the webbing at the end of the buckle tongue, press the red button on the buckle, the buckle tongue is released. When the webbing is slowly retracted into the retractor, release the buckle tongue.

Seat belt release warning indicator



unfastened is achieved by the pressure sensing device on the seat cushion to determine whether there is a person sitting on the seat. When it is determined that there is a person on the seat, a signal will be output; at this time, if the driver's or co-driver's seat belt is not inserted into the buckle, the system will remind them to fasten the seat belt through a display light or prompt sound.

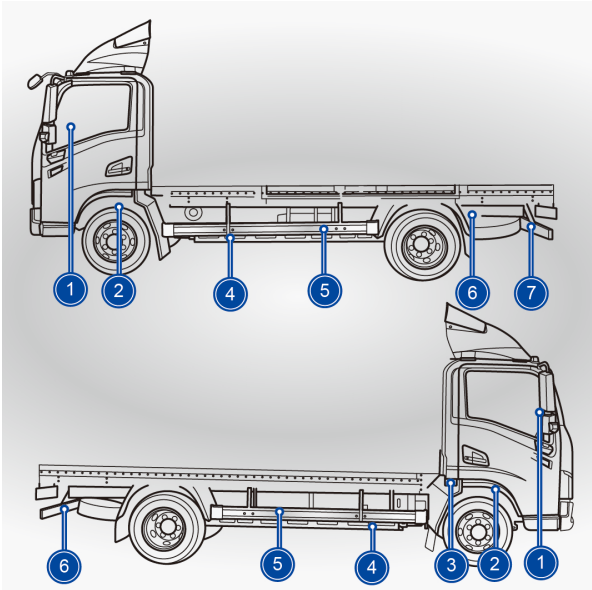
When the vehicle detects that the driver and passengers are not wearing seat belts, the instrument panel displays an indicator to remind them immediately. When the vehicle speed exceeds a certain speed, it gives audible alarms to remind the driver and passengers to fasten their seat belts. The reminder of seat belt

Special precautions for pregnant women

1. Pregnant women should follow doctor's advice when using seat belt.
2. When a pregnant woman wears a seat belt, position the hip seat belt below hip joints or attach it to thighs closely.
Otherwise, her abdomen may be stressed, increasing the risk of serious injury or even death to the pregnant woman or fetus.

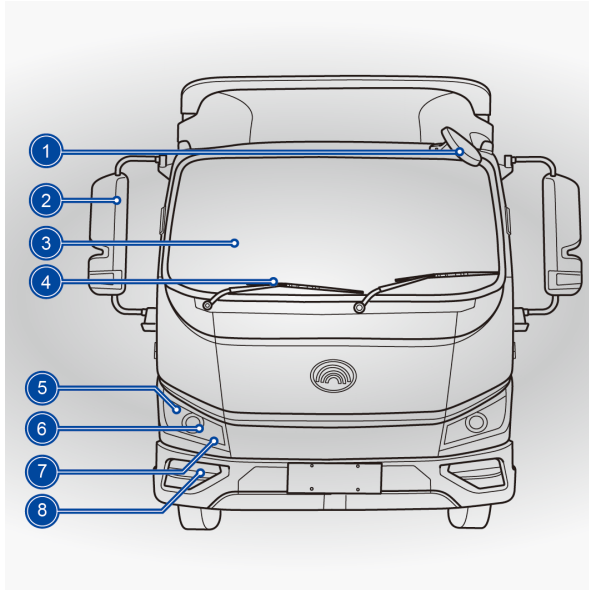
Vehicle Appearance

Side view of the vehicle



S/N	Component name
①	Driver cabin
②	Battery
③	Controller
④	Traction battery
⑤	Side protection
⑥	Traction motor
⑦	Rear protection

Front view of the vehicle



S/N	Component name
①	Front clearance lamp
②	Rear-view mirror
③	Front windshield
④	Wiper
⑤	Position light/turn signal light/daytime running light
⑥	Low beam/high beam
⑦	High beam (auxiliary high beam)
⑧	Front fog lamp (optional)

The appearance figures of the vehicle are only for illustration.
Different optional configurations and coating requirements may

Vehicle Appearance

affect the actual vehicle status. The details are subject to the actual vehicle.

Rear protection device

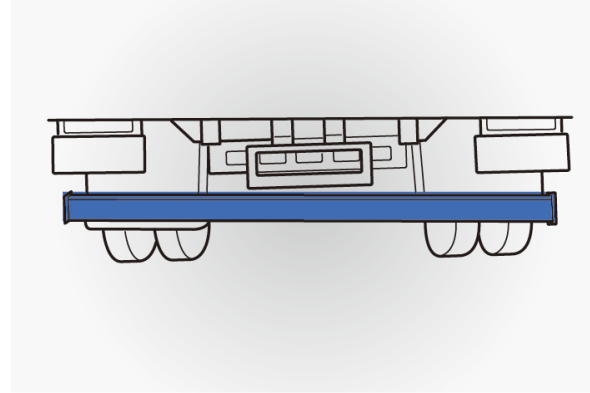
⚠ Warning

For the sake of driving safety, please do not change the position and structure of the rear protection without permission.

ℹ Notice

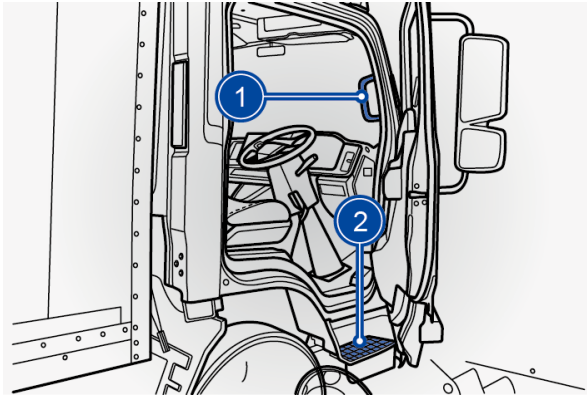
Check the connecting parts of the rear protection regularly. If they are loose or fall off, please recover and fasten them in time, and if necessary, please contact Yutong authorized service personnel in time.

Illustration of rear protection device



The rear protection device consists of transverse components and longitudinal connecting members. It has sufficient blocking ability in the direction parallel to the longitudinal axle of the vehicle in a rear-end collision to prevent rolling under the vehicle and collision.

Auxiliary devices for getting on/off the vehicle



Handrail for Getting On/Off the Vehicle

- It is fixed on the upper part of the inner side of the first left and right pillars for the driver and passengers to grab when getting on/off the vehicle, as shown in the figure **1**.

Fixed step

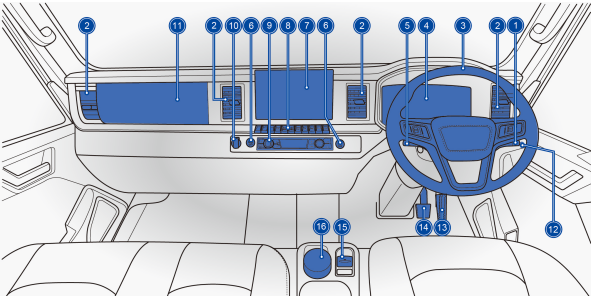
- The steps are located under the doors on both sides of the driver cabin for stepping on when getting on/off the vehicle, as shown in the figure **2**.

! Warning

- Please keep the surface of the handle and steps clean and dry, avoiding oil stains or other debris to prevent difficulty in grasping.
- When getting on/off the vehicle, face the inside of the vehicle and use the handle and steps to stabilize the movement. Pay attention to firmly grasping and stepping on it to avoid loosening or misstep and avoid losing balance.
- If the handrails for getting on/off the vehicle and fixed

steps are loose or damaged, they should be repaired and replaced in time.

Driver zone



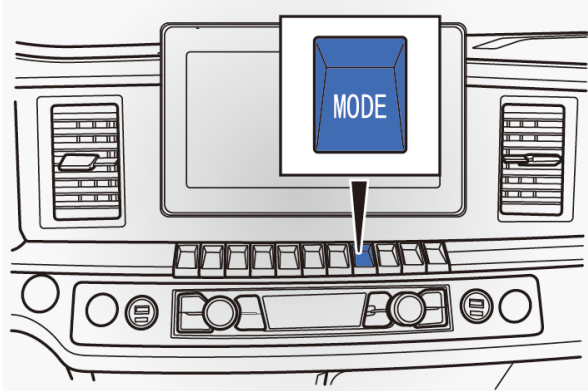
S/N	Component name
①	Gear switch
②	Air outlet
③	Steering wheel
④	Combination Instrument

S/N	Component name
⑤	Combination Switch
⑥	USB interface
⑦	Center Console Display
⑧	Switch group
⑨	A/C panel
⑩	Power-getting interface
⑪	Storage box
⑫	ENGINE START STOP switch
⑬	Accelerator pedal
⑭	Brake pedal

S/N	Component name
15	EPB switch
16	Ashtray

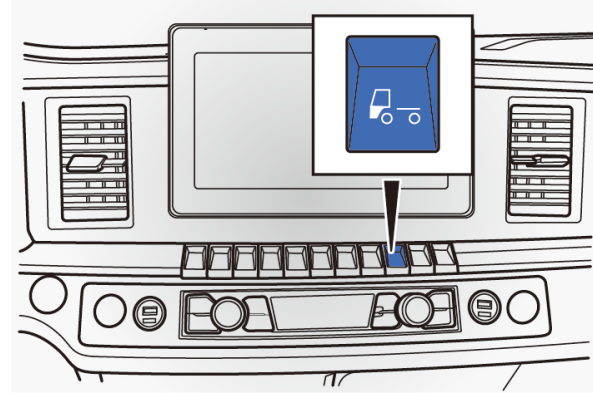
Switch Panel

Driving mode selection switch



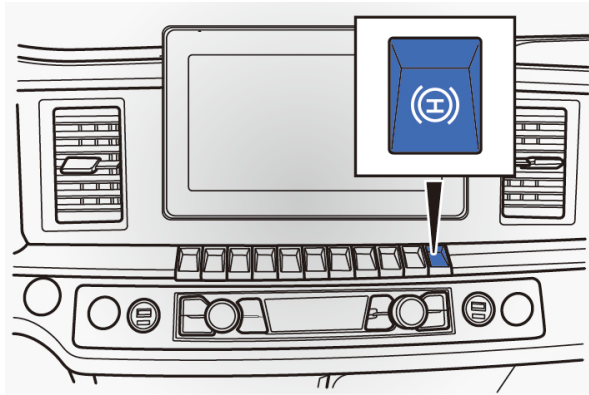
Used to switch driving modes with different dynamics.

Roof warning light switch



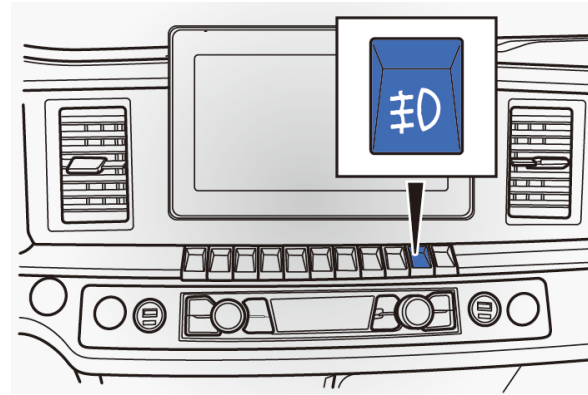
Used to turn on/off the roof warning light.

Rain and snow mode switch (regenerative brake switch)



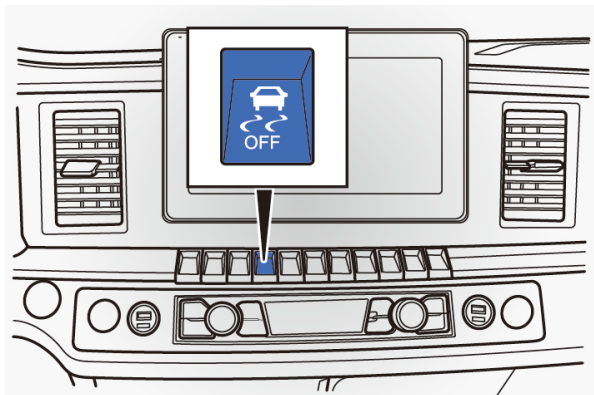
If the vehicle runs on a wet or icy and snowy road surface for a long time, press this switch for reducing the motor braking force, and increasing the braking safety.

Front fog lamp switch



Used to turn on/off the front fog lamps.

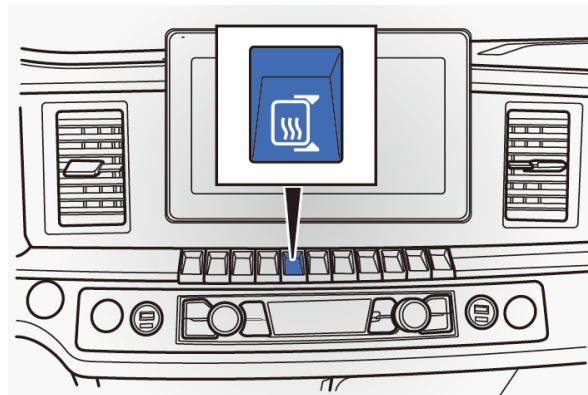
ESC Off switch



Used to turn on/off the ESC function.

⚠ Warning

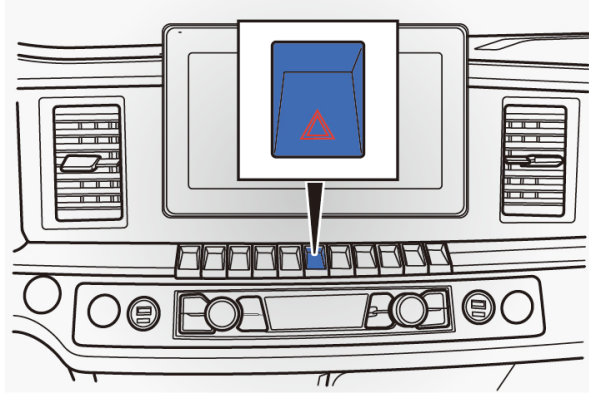
After this switch is operated, the ESC system on the vehicle will be turned off, which will affect the driving stability. Please use it with caution.



Used to turn on/off the electric heating function of the exterior rear-view mirrors. When they need to be defrosted or defogged, press this switch. During heating, operate this switch again to stop heating.

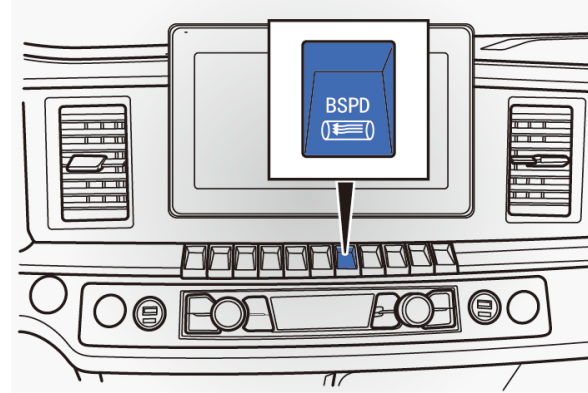
Emergency lamps (emergency flashers) switch

Rear-view mirror defrosting switch



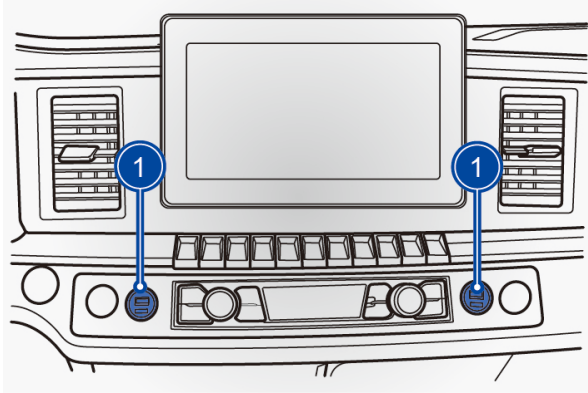
The turn signal lights on both sides are flashing, and the green turning indicators on the instrument are flashing.

De-icing mode switch



Used to remove the moisture in the brake pipeline in low temperature environment to ensure that the brake pipeline is dry.

USB Charging Port



1 USB charging port: It has a rated voltage of 5V, a current of 2.1A, and is for charging mobile phone or tablet only.

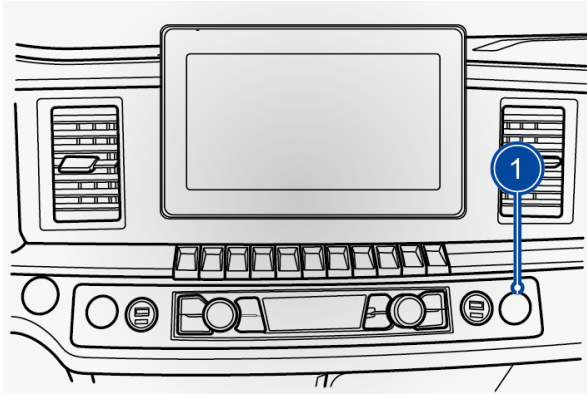
i Notice

- Before use, make sure that the electric appliance

matches the USB specifications to avoid damage.

- Use the USB charging port only after starting the vehicle, to prevent battery depletion.
- Do not use the USB charging port for charging without supervision.

Cigarette Lighter



1 Cigarette lighter: A device powered by the vehicle's power supply for lighting cigarettes.

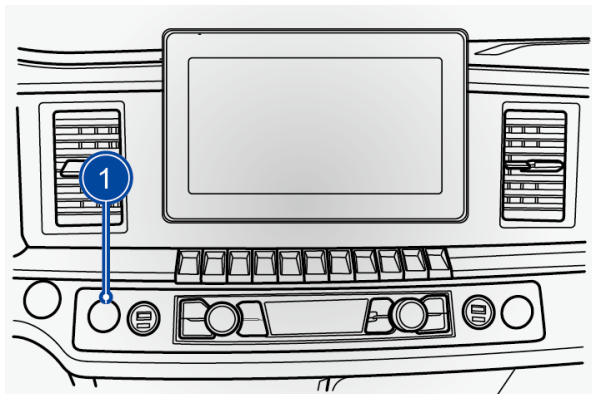
i Notice

- Use the cigarette lighter only after starting the vehicle

to prevent battery depletion.

- Ensure that the power rating of the electrical device matches the cigarette lighter to avoid damage.

Power Outlet



1 Power outlet: a device used to convert the power and charge by taking power from the on-board power supply.

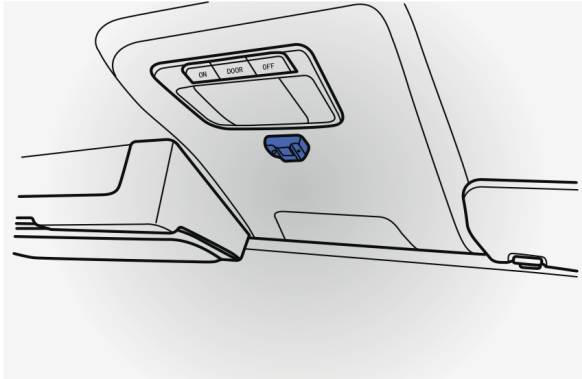
1. Open the protective cover of the power outlet, insert the electrical equipment into the power outlet, and fasten the cover

after use.

i Notice

- Please use the power outlet after vehicle is started to avoid battery undervoltage.
- The power of the electrical equipment should be matched with the power outlet to avoid damage to the power outlet.
- Avoid rinsing the power outlet with water or wiping it with corrosive cleaning agents, as it may damage the power outlet.

SOS key (if equipped)



In the event of sudden dangers such as robbery, vehicle accidents, or breakdowns, press and hold the SOS button for more than 2 seconds. The vehicle's emergency warning and rescue system will send out a distress signal.

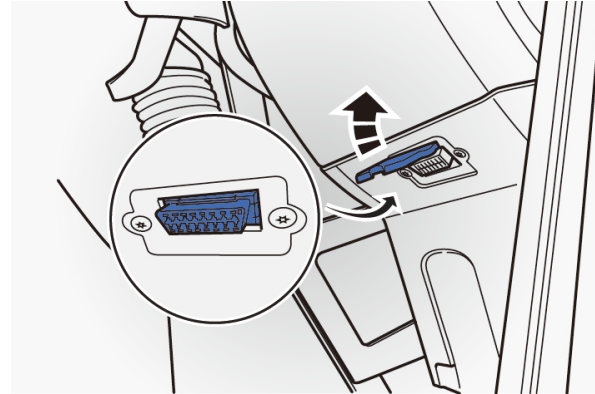
On-board diagnostics (OBD)

OBD function

- It can be connected to the vehicle CAN line through the OBD interface to monitor and read the data on the CAN line and obtain some data information of the vehicle.

Read information

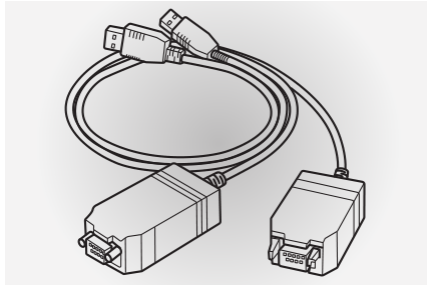
The OBD interface is located on the lower left side of the dashboard.



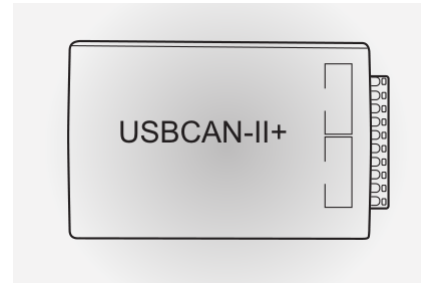
1. Open the OBD interface cover plate.
2. Connect the CAN information reading tool to the OBD interface to obtain some data information on the vehicle CAN line.

 Notice

German PEAK CAN or domestic equivalent equipment of ZLG can be used as CAN information reading device.

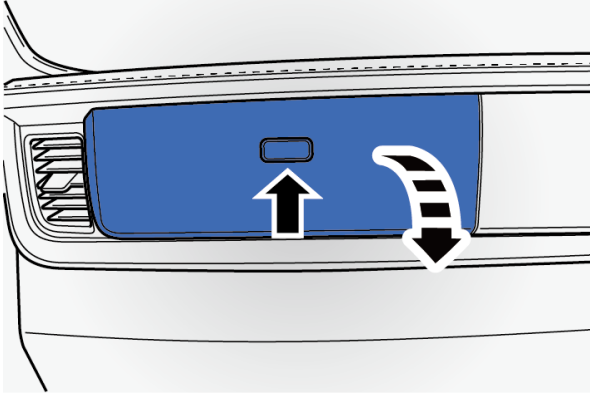


- PEAK CAN device



- ZLG device

Storage box



Open the storage box

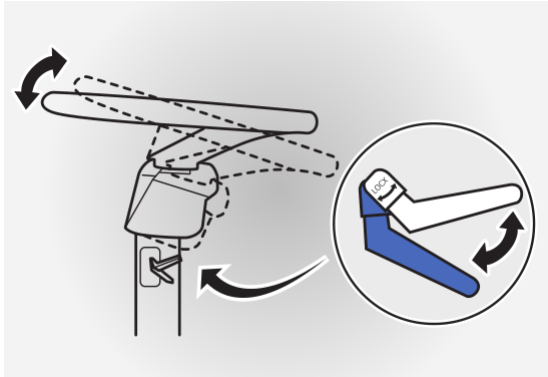
- Touch the center key and the box will automatically open.

Close the storage box

- After opening the storage box, if it needs to be closed, push the storage box cover plate upward until it is closed in place.

Steering wheel

Adjust the steering wheel



1. Release the locking lever near the steering pillar. Turn over the steering wheel forward and backward to adjust the front and rear position and angle of the steering wheel.
2. Pull the steering wheel up and down to adjust its up and down

position. Please adjust the steering wheel to a position that does not block the instrument, to ensure that the steering wheel can be operated comfortably and freely.

3. After adjusting the steering wheel, adjust the locking lever to the original locking status to lock the steering wheel position.

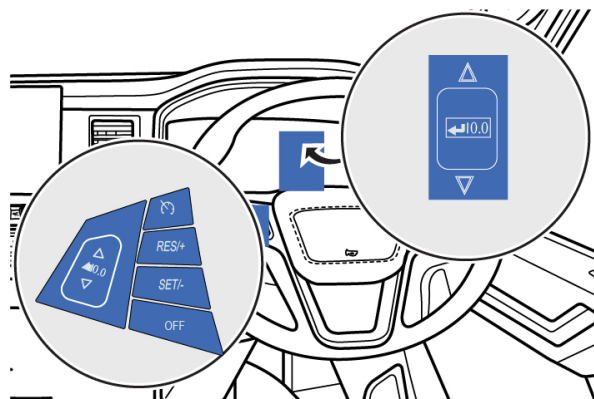
Danger

When adjusting the seat and steering wheel, the vehicle must be stopped. Never adjust the seat or steering wheel during driving as it will affect driving safety.

Steering wheel keys

Left keys

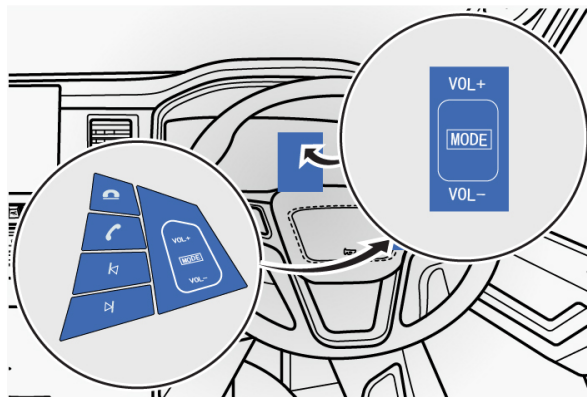
Steering wheel



- : Cruise enable switch.
- OFF: Turn off the cruise function.
- RES/+ : Cruise reset/Cruise speed+.
- SET/- : Cruise setting/Cruise speed-.
- ▲ : Scroll up/down the knob to set the meter or page up/down.
- ▼ : Press the knob for confirmation.

- OK:

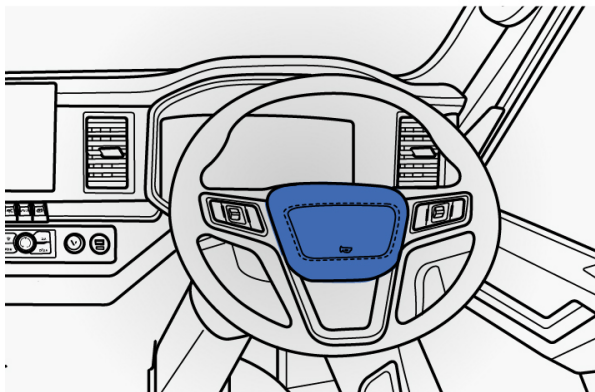
Right keys



- : Answer key.
- : Hang-up key.
- : Previous page in multimedia mode, or previous song;
- : Next page in multimedia mode, or next song;

- **MODE:** Scroll up/down the knob to adjust the volume of the player. Press the knob to switch between multiple multimedia modes.
- The Bluetooth of the mobile phone is connected to the Bluetooth of the audio player, so you can make or answer calls by pressing the  .

Horn



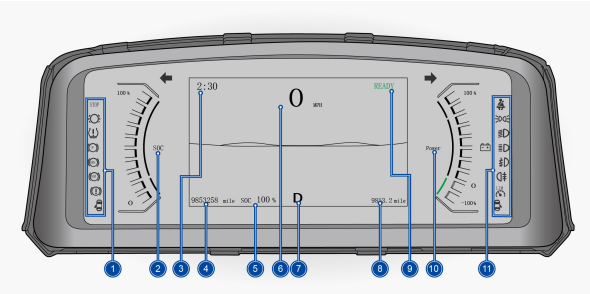
Press the horn button  to sound the horn.

Notice

- The horn can not work continuously over 30s each time. Otherwise, the horn will be damaged.

- Please use the horn reasonably. In non-emergency situations, strictly obey regulations on the use of motor vehicle horns.

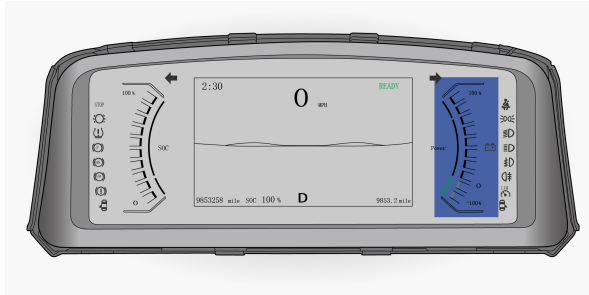
Combination Instrument



S/N	Description
①	Indicator zone
②	Battery capacity meter
③	Time
④	Total mileage

S/N	Description
⑤	Battery capacity meter
⑥	Speedometer
⑦	Gear position
⑧	Trip mileage
⑨	Vehicle operating status
⑩	Power meter
⑪	Indicator zone

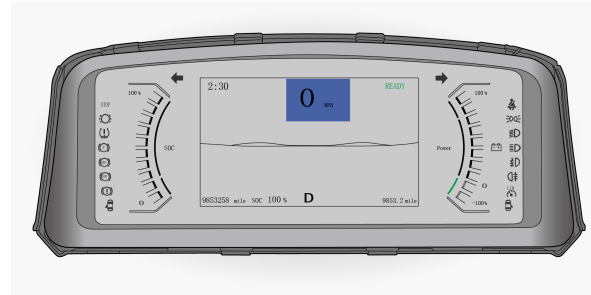
Power percentage meter



The motor power meter is used to display the motor power percentage, which indicates the percentage value of the motor's current output power to the motor's rated power.

- The indication range for the motor power percentage is -100 to +100%.

Speedometer

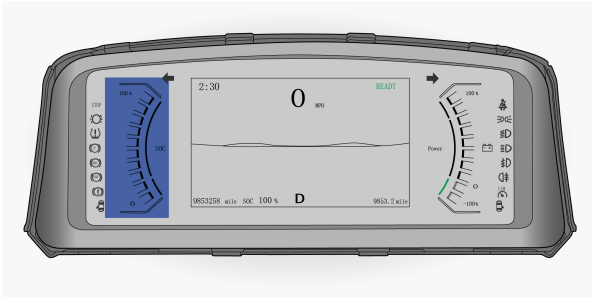


The speedometer indicates the instantaneous speed of the vehicle with a range of 0 to 140 km/h. For this vehicle, the speed limit function has been activated according to the national laws and regulations before it leaves factory; do not overspeed in daily driving. When the vehicle speed exceeds the speed limit, the overspeed warning indicator  comes on, and the built-in warning buzzer of the instrument works synchronously, reminding the driver to pay attention to driving safety and do not overspeed.

! Warning

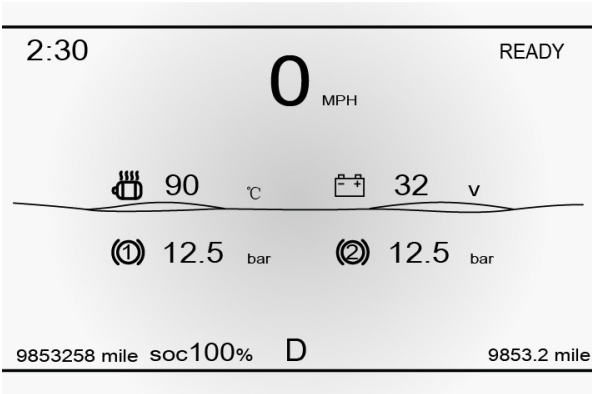
The user shall not change the speed limit function set in the factory after the vehicle is delivered. If speed limit function parameters are modified without authorization, the vehicle speed limit function will not work properly, the vehicle will not meet the regulatory requirements, and even dangers will be caused.

Battery capacity meter



The battery capacity meter is used to display the SOC of the traction battery, ranged from 0 to 100%. This progress bar displays the contents consistent with those shown on the battery capacity meter in the display screen.

Driving information interface



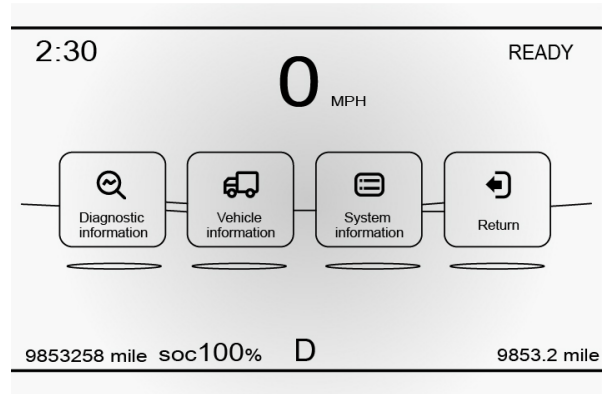
In the first interface of the instrument, scroll to the driving

Combination Instrument

information interface by pressing the key Up/Down of the multi-function steering wheel instrument.

- Driving information interface:
- Motor temperature
- Battery voltage
- Air pressure 1 (for vehicle with air brake)
- Air pressure 2 (for vehicle with air brake)

Setting interface



- In the home interface of the instrument, pressing the instrument keys on the multi-function steering wheel to enter the setting interface.
- The setting interface is designed with four options including “Diagnosis information”, “Vehicle information”, “System information” and “Back”, which can be accessed by pressing the instrument key ▲ and ▼.

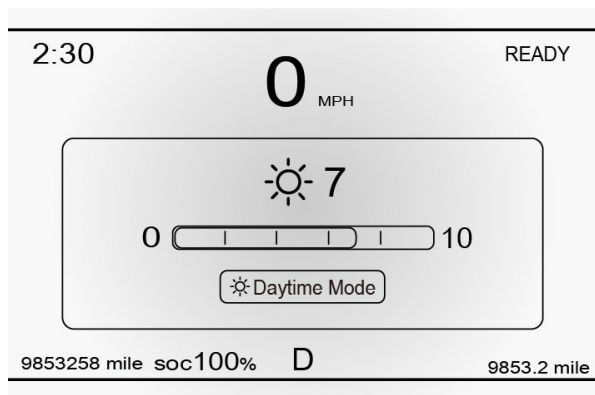
- The “Diagnosis information” interface includes sub-interfaces such as “New energy fault”, “Pin inquiry”, etc.
- The “Vehicle information” interface includes sub-interfaces such as “Power information” and “Battery pack information”, etc.
- The “System information” includes sub-interfaces such as “Clear trip mileage”, “Brightness setting” and “Product information”, etc.



Trip mileage

- With the instrument keys ▲ and ▼ on the multi-function steering wheel, select the option Clear and press it for clearing the trip meter.

Brightness adjustment

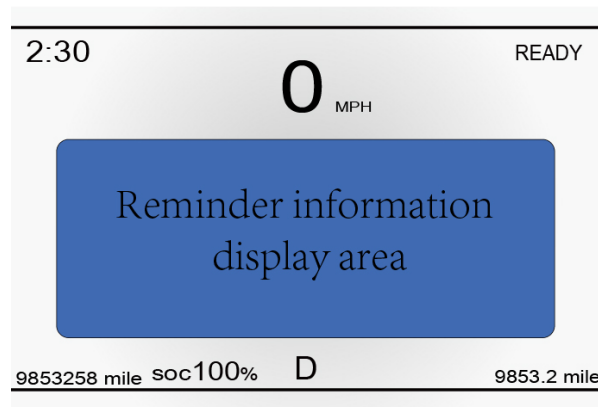


- In the Brightness setting interface, set the brightness of the instrument panel by pressing the instrument keys ▲ and ▼ on the multi-function steering wheel and the instrument will automatically memorize the values after successful setting.

Driving Behavior Reminder

The combination instrument displays the driver's driving behavior

reminder to remind the driver of abnormal operation, and guide the driver to operate correctly.



- This reminds the driver that the accelerator pedal is depressed when the parking brake is active. In this case, the power has been outputted. Please be careful.
- This reminds the driver that doors are closed. Release the

accelerator pedal first, and then depress the accelerator pedal to make the vehicle start to move.

- This reminds the driver to depress the brake pedal before selecting a gear.
- This reminds the driver to depress the brake pedal when starting the vehicle.
- This reminds the driver that the accelerator pedal is nearly fully depressed during starting. The driver should ensure safety.
- This reminds the driver that the vehicle is in "N" gear, the parking brake switch is not pulled.
- This reminds the driver that it is not allowed to engage a gear while depressing both the brake and accelerator pedals.
- Confirm that the parking brake is released, step on the brake pedal and press the "P" key to release the EPB.
- Press the brake pedal first, and press the parking switch to release the EPB.
- The door is open. Please close the door before driving.
- The accelerator pedal is pressed. Please pay attention to safety.
- Emergency flashers are turned on, and no-driving with open door(s) function is deactivated. Please pay attention to driving safety.
- The pressure in the parking brake chamber is low. Wait till the pressure rises or contact the maintenance service for repair. Pay attention to safety.
- Emergency flashers are turned on. Release the accelerator pedal and press it again before driving.
- The driver gets out of the seat, and the vehicle slows down.
- The regenerative braking is weak. If you need to slow down, please brake in advance and press the brake pedal deeply.

- Make sure that the parking brake is released, step on the brake pedal and press the parking switch to release the EPB.
- The vehicle is in neutral gear. Please pay attention.
- The seat signal is invalid. Please check.
- Wrong direction. Please shift again.

Warning

- Never depress the accelerator pedal before the door is completely closed!
- Never depress the accelerator pedal to turn on the brake release switch!
- Never drive with the door open.
- Before passing the test line, undergoing transporting, towing and other special operating conditions, the braking function should be released according to the actual situation. Otherwise drag brake phenomenon

will occur, resulting in vehicle damage or even fire.

- Never fully depress the accelerator pedal to start off. Otherwise, the vehicle speed may be too high, causing safety accidents.
- Never select a gear with accelerator pedal depressed. Otherwise, the vehicle will rush out, causing a safety accident.
- Before leaving the seat, the “N” gear must be restored and the parking switch must be pulled!
- Never leave the seat before pulling the parking switch. Otherwise, the vehicle may slip, causing a safety accident.
- It is necessary to ensure that the doors are closed before the vehicle starts to move, otherwise other traffic participants could be injured during driving.

 Notice

- When the vehicle power is restricted, the combination instrument will display a yellow restricted power indicator. Please contact Yutong authorized service personnel in time.
- When the accelerator signal and the brake signal are valid at the same time, the vehicle will respond to the brake signal. In this case, it is invalid to depress the accelerator pedal.
- If the combination instrument has a fault warning when the vehicle is driving, stop the vehicle to a safe area immediately and contact Yutong authorized service personnel.
- In non-emergency situations, never turn off the ignition key or the power handle switch during

driving! Otherwise, serious damages to the controller may occur, affecting the operation of the vehicle!

Indicator/warning indicator

Red indicator

STOP Stop indicator

It indicates that the vehicle has a serious fault. The indicator will come on in the following situations:

- The brake air pressure of the front axle air reservoir is too low.
- The brake air pressure of the rear axle air reservoir is too low.
- The level of coolant is too low.



Electric drive system and battery fault indicator

It indicates that the electric drive system and the battery have a fault. Combining with warning text displayed on instrument,

determine the specific fault.

- If the power system has a fault, this warning indicator comes on.
- If any of the following situations occur, it indicates that there is a fault in one of the components monitored by the warning indicator system. Please contact Yutong authorized service personnel in time:
- When the power supply gear is in the “ON” position, this warning indicator remains on.

This warning indicator remains on during vehicle driving.



Warning

Try not to drive the vehicle when the warning indicator comes on. Please contact Yutong authorized service

personnel in time.

Notice

This indicator remains on and then goes off, indicating that the system self-inspection is completed.

EBS

EBS warning indicator

It indicates that the electronic control braking system has a serious fault.



Seat belt release warning indicator

When the power supply gear is in the "ON" position, if the seat belt of the driver is not fastened, the seat belt indicator will come

on. This indicator remains on until the seat belt is fastened.



Charging connection indicator

It indicates the vehicle is in charging connection status.



Motor temperature warning indicator

It indicates that the motor temperature is too high.



Driver off-seat warning indicator (if equipped)

It indicates that the driver leaves the seat while the vehicle is moving.



Air pressure warning indicator

Indicator/warning indicator

It indicates that the brake air pressure of the vehicle is low. Combined with the warning text on the instrument, determine the specific under-pressure position.



Hill-start assist fault indicator

It indicates that the hill-start assist function has a fault.



Battery voltage warning indicator

It indicates that the battery voltage is abnormal. If this indicator comes on while driving, it indicates that there is a problem with the DC system or low-voltage power supply system. Please turn off the A/C, fan, radio, etc., and immediately pull over the vehicle while ensuring safety, and contact Yutong authorized service personnel.



Parking brake indicator

It indicates that the vehicle is in the parking state.



Cruise control fault indicator

It indicates the ACC fault.



Steering fault warning indicator

It indicates that the electric steering system has a fault.



Passenger side door status indicator

It indicates that the passenger side door is in open status. When the system detects that the passenger side door is not closed, this indicator remains on.

**Driver side door status indicator**

It indicates that the driver side door is in open status. When the system detects that the driver side door is not closed, this indicator remains on.

EPH**EPH fault indicator (red)**

It indicates that the EPB system has a serious fault.

EPH release prohibited indicator

It indicates that EPB is prohibited to release.

Yellow indicator**High speed warning indicator****Brake pad wear warning indicator**

It indicates that the brake pad needs to be replaced or its sensor has a fault.

**ASR working indicator**

It indicates that the ASR function is activated.

**ABS warning indicator**

It indicates that the anti-lock braking system has a fault. When the anti-lock braking system has a fault, this indicator remains on.



Drive power restriction indicator

It indicates that the power of the vehicle is restricted, the vehicle cannot accelerate normally, and the driving speed is slow.

The indicator will come on in the following situations:

- The motor temperature is too high.
- The motor controller temperature is too high.
- The traction battery power is low.



EPB fault indicator

It indicates that the EPB system has a fault.



Tire pressure fault warning indicator

It indicates that the tire pressure system has a fault.

- When the power supply gear is in the “ON” position, this warning indicator comes on. If the tire pressure monitoring system is working properly, this warning indicator will go off after a few seconds.
- If the system has a fault, this warning indicator will come on again.



ESC indicator

- When the indicator remains on, it indicates that the electronic stability control system has a fault.
- When the indicator flashes, it indicates that the electronic stability control system is working.

**ESC OFF indicator**

It indicates that the ESC system is turned off.

**Traction battery low voltage warning indicator**

It indicates that the traction battery capacity is low. Please charge the vehicle as soon as possible.

**Traction battery charging status indicator**

It indicates that the traction battery is in a charging status.

**TCS warning indicator**

It indicates that the traction control system has a fault.

**Low speed buzzer off indicator**

It indicates that the low speed buzzer system is turned off.

**Steering calibration reminder**

It indicates that the electric steering system needs to be calibrated.

**Maintenance reminder**

It indicates that the vehicle mileage is approaching the maintenance mileage.

**Rear fog indicator**

It indicates that the rear fog lamps come on.

**EPH fault indicator (yellow)**

Indicator/warning indicator

It indicates the EPB system has a fault.

EBS

EBS warning indicator

It indicates that the electronic control braking system has a fault.

Blue indicator



High beam indicator

It indicates that the high beams come on. This indicator remains on when the high beams are turned on.

Green indicator

READY

Vehicle status indicator

It indicates that the vehicle is in neutral gear after the vehicle is started.



Hill-start assist indicator

It indicates that the down-hill assist control function is enabled.



Cruising operation indicator

It indicates that the ACC function is activated.



Clearance lamp indicator

It indicates that the clearance lamps come on. This indicator remains on when the clearance lamps are turned on.



Low beam indicator

It indicates that the low beams come on. This indicator remains on when the low beams are turned on.

**Front fog indicator**

It indicates that the front fog lamps are on.

**Left turn indicator**

It indicates that the left turn signal lights come on.

- The turning indicator flashes when the left turn signal lights are turned on.
- The turning indicator also flashes when the hazard warning lamps are turned on.

**Right turn indicator**

It indicates that the right turn signal lights come on.

- The turning indicator flashes when the right turn signal lights

are turned on.

- The turning indicator also flashes when the hazard warning lamps are turned on.

Gear position indication**Reverse gear indicator (red)**

It indicates that the vehicle is in reverse gear status.

**N gear indicator (green)**

It indicates that the vehicle is in N gear status.

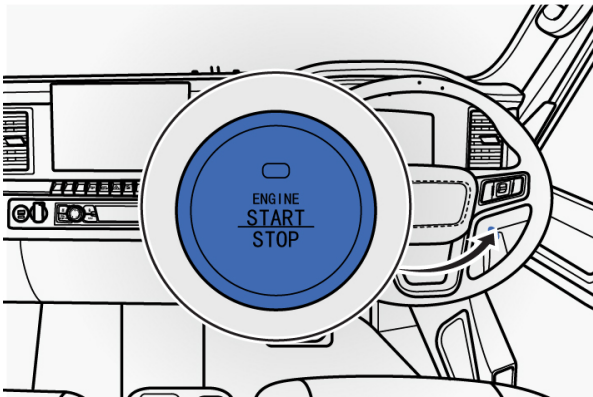
**Forward gear indicator (white)**

It indicates that the vehicle is in forward gear status.

 Warning

When the warning indicator comes on, park the vehicle at a safe place immediately for troubleshooting or please contact Yutong authorized service personnel in time. Never continue driving. Otherwise, vehicle damage could be caused.

ENGINE START STOP switch



Status	Indicator
OFF	The indicator goes off
ACC	The indicator

Status	Indicator
ACC	comes on (orange)
ON (before motor starts)	The indicator comes on (orange)
Start conditions are met	The indicator comes on (green)
Starting/Started successfully	The indicator comes on (green)

Normal start and shutdown

In OFF/ACC/ON status, depress the brake pedal, and press the ENGINE START STOP switch to start the vehicle. Press the ENGINE START STOP switch again to shut down the vehicle.

Emergency start of vehicle

- When the battery of the remote controller is low, place the remote controller close to the dashboard in front of the left leg of the driver to start the vehicle.
- If you depress the brake pedal during normal start, press and hold the ENGINE START STOP switch for 15s to force the vehicle to start.

Emergency flameout

When press the ENGINE START STOP switch while driving, the vehicle will not stall. Press the ENGINE START STOP switch 3 times within 2s, or press and hold for 3s to power off the vehicle.

Warning

- Power off immediately when leaving the vehicle.

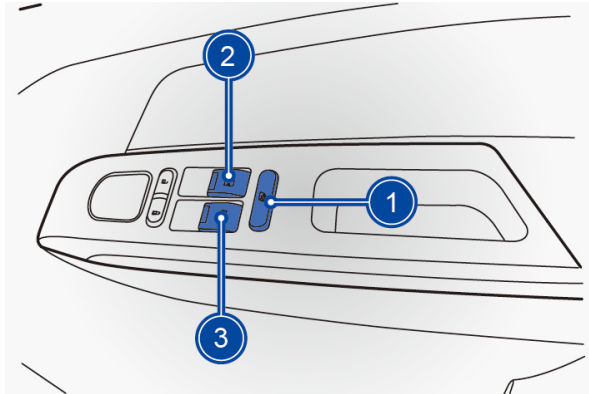
- Always keep the remote well to prevent others from starting the vehicle or operating the vehicle by mistake. Otherwise, accidents may be caused.

Notice

- Release the ENGINE START STOP switch immediately after the vehicle starts.
- When the vehicle does not operate and the ignition switch is placed in the “ACC” or “ON” status for a long time, the battery capacity will be depleted.
- If the vehicle starts difficultly or stalls frequently, immediately contact Yutong customer service manager.

Open the window

Driver side switch group



① Window locking switch

- Press the window locking switch. Only the driver side window switch can control the window glass to lift and lower. The passenger side window switch cannot control the window to lift

and lower.

- Press the window locking key again, the red indicator for window lock will go off, and at the same time, the passenger side window switch will resume normal operation.

② Drive side window switch

- Used to control the lifting and lowering of the drive side window glass.

③ : Passenger side window switch

- Used to control the lifting and lowering of the passenger side window glass.

Operation of switches:

- Including inching lifting/lowering functions, as well as automatic lowering function.

Open the window

- Press the window switch for more than 0.5s to control the inching lifting/lowering of the glass.
- Press the window switch for less than 0.5s, the glass will automatically lower.

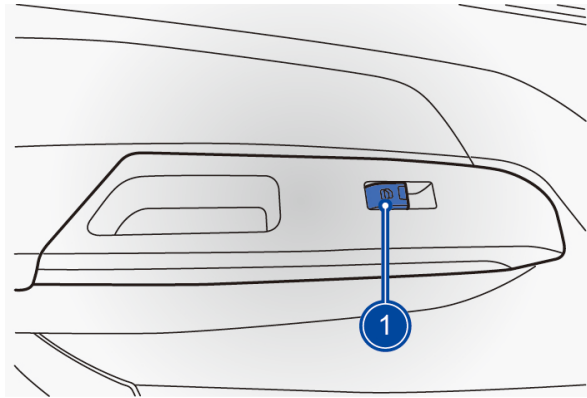
Danger

- Never put head, hand or other part of the body outside the window except in an emergency evacuation. Otherwise, accidents such as impact may occur, even endangering life.
- It is forbidden for people in the vehicle to lean on the window. Otherwise, under abnormal circumstances, the window will be broken or fall off, leading to personal injury.

Notice

- During the operation of the window, if contact occurs, the window must be moved in the opposite direction.
- When the driver operates the passenger side electric lifting switch, ensure that there are no obstacles that prevent the windows from closing correctly.
- The driver must ensure that passengers use the window switch correctly.

Passenger side switch group



① : Passenger side window switch

- Used to control the lifting and lowering of the passenger side window glass.

i Notice

- When the window locking switch is pressed, the

passenger side window switch function is disabled.

Operation of switches:

- Including inching lifting/lowering functions, as well as automatic lowering function.
- Press the window switch for more than 0.5s to control the inching lifting/lowering of the glass.
- Press the window switch for less than 0.5s, the glass will automatically lower.

Danger

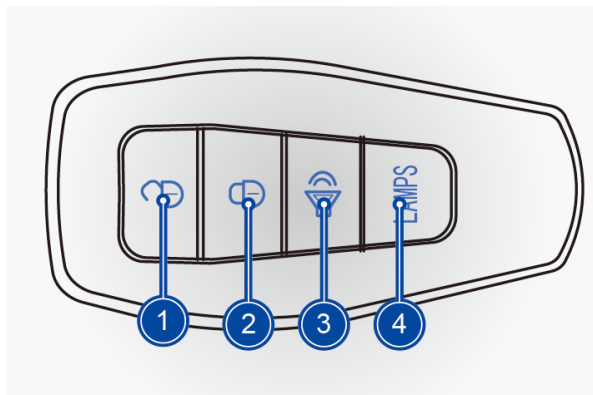
- Never put head, hand or other part of the body outside the window except in an emergency evacuation. Otherwise, accidents such as impact may occur, even endangering life.

- It is forbidden for people in the vehicle to lean on the window. Otherwise, under abnormal circumstances, the window will be broken or fall off, leading to personal injury.

Notice

- During the operation of the window, if contact occurs, the window must be moved in the opposite direction.
- The driver must ensure that passengers use the electric glass lifter switch correctly.

Remote control key



- ① "Unlock" key
- ② "Lock" key
- ③ "Vehicle search" key

- ④ "Light inspection" key

Unlock

- Press the "Unlock" key ① to unlock all doors simultaneously. The turn signal lights flash three times, and pull the door handle to open the door.

Lock

- Press the "Lock" key ② to lock all doors simultaneously. The turn signal lights flash once, and the horn sounds once.

Vehicle search

Press the "Vehicle search" key ③, the turn signal lights flash three times, and the horn sounds three times.

Light inspection

Press and hold the "Light inspection" key ④, all exterior lights

turn on and the turn signal lights flash.

Notice

- When you leave the vehicle, be sure to take all kinds of keys with you to avoid accidents caused by others starting or mistakenly operating.
- Take care of various keys properly. If you accidentally lose or need to make the keys, please contact Yutong authorized service personnel in time. Do not place the key in a high-temperature environment, such as exposing it to sunlight on the dashboard in summer.
- Do not disassemble the key at will.
- Do not use the key to forcefully strike other objects or let it fall to the ground.
- Do not immerse the key in water or use an ultrasonic

washer for cleaning.

- Do not place the remote control key with devices that emit electromagnetic waves, such as mobile phones.
- Check whether there are any nearby radio stations or airport radio transmitters that may interfere with the normal operation of the remote control key.
- The battery capacity of the remote control key may have been depleted. Check the battery inside the remote control key. If you need to replace the battery, please contact Yutong authorized service personnel in time.

Vehicle search function

- Press the Vehicle search key, the vehicle will emit three beeps, and the turn signal lights flash three times. When you cannot

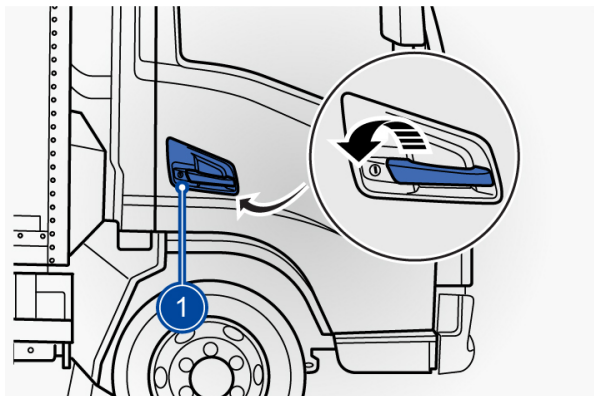
confirm the position of your vehicle, this function can be used to find the specific position of the vehicle.

Open the windows with remote controller

- Press and hold the “Unlock” key for 3s to lower the window glass.

Press and hold the “Lock” key for 3s to lift the window glass.

Lock/unlock with the mechanical key



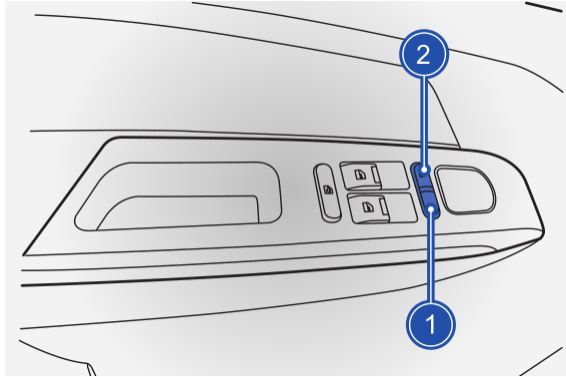
1 Door lock and handle

- Insert the mechanical key into the door lock and turn it.
- Turn the key clockwise to unlock the driver door.
- Turn the key counterclockwise to lock the driver door.

i Notice

The driver side door is locked and the passenger side door is also locked. The passenger side door is locked and the driver side door is not locked.

Lock/unlock with the center control lock



① “Lock with center control lock” key

② “Unlock with center control lock” key

Lock

Press the “Lock with center control lock” key ① to lock all

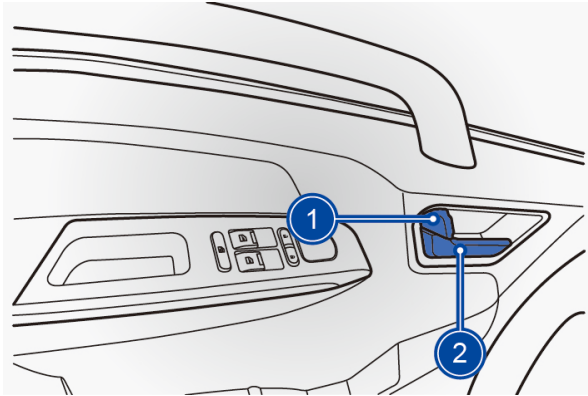
doors simultaneously.

Unlock

Press the “Unlock with center control lock” key ② to unlock all doors simultaneously.

Open the door with the inner opening handle of the door

Open the door with the inner opening handle of the door



① Lock button

② Inner opening handle of the door

- In the unlocked status of the vehicle, pull the inner opening

handle of the door to open the door from interior.

- In the locked status of the vehicle, first move the inner lock key backwards, then pull the inner opening handle of the door to open the door from interior.

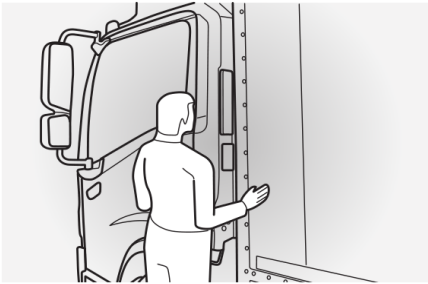
Notice

- The driver side door is locked and the passenger side door is also locked. The passenger side door is locked and the driver side door is not locked.

Driver cabin tilting operation

Check the new vehicle

- After receiving a new vehicle, check whether the driver cabin is smoothly tilted, whether the support rod is firmly limited and whether the rear locking mechanism functions normally.
- The driver cabin tilts without being stuck, movement or abnormal noise.



Precautions for driver cabin tilting operation

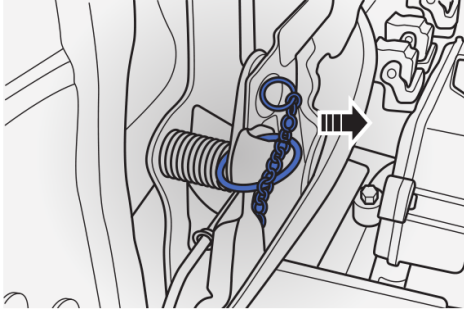
- Before tilting the driver cabin, the vehicle must be parked on a level road surface.
- Engage neutral gear of the vehicle.
- Pull up the parking brake switch.
- Close all doors.

Warning

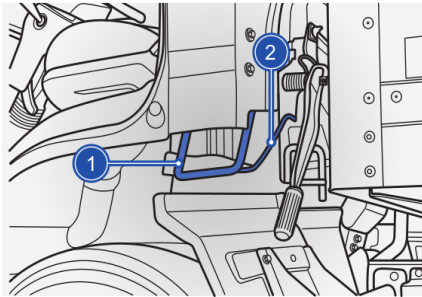
- Never place heavy objects in the driver cabin.
- No passengers are allowed to stay in the vehicle.
- There are no running vehicles passing by on the left side of the vehicle, and no personnel stay in front of the vehicle.

Tilt the driver cabin

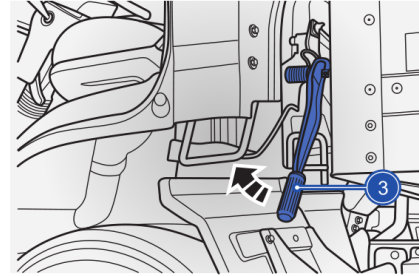
Driver cabin tilting operation



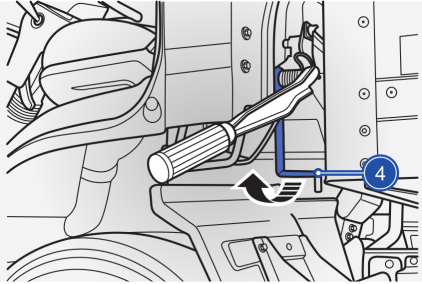
1. Pull out the safety lock handle lock pin.



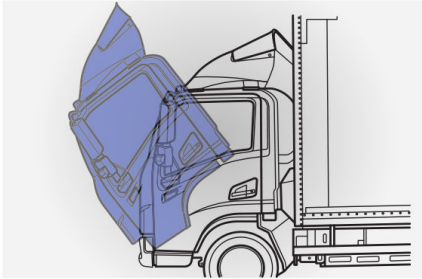
2. Simultaneously grip the tilting handle ① and buckle ②.



3. Pull up the safety lock handle ③ to unlock the driver cabin from the locking device.

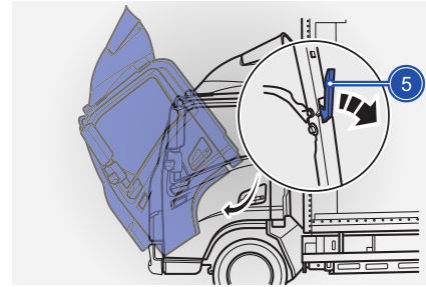


4. Release the limit handle ④ from the lock hook limit bracket.



5. Continue tilting the driver cabin upwards to its maximum

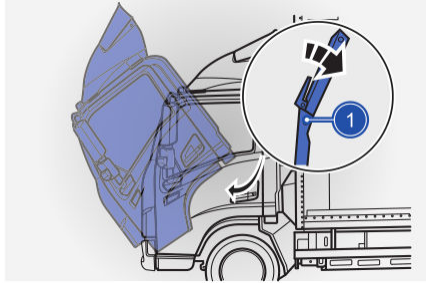
position until the tilting support rod locks vertically.



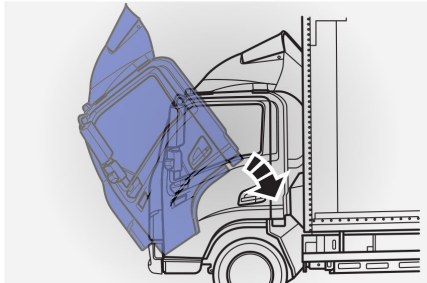
6. The self-locking handle ⑤ on the tilting support rod will automatically pop out and lock the tilting support rod.

Lock the driver cabin tightly

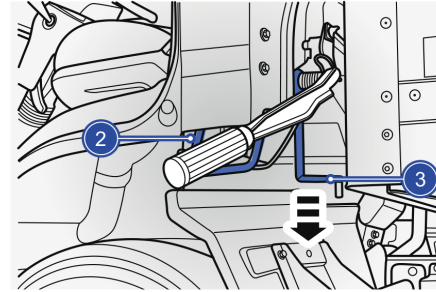
Driver cabin tilting operation



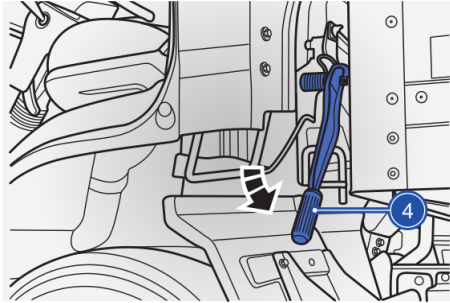
1. Hold the tilting handle and push in the self-locking handle ① to unlock the tilting support rod.



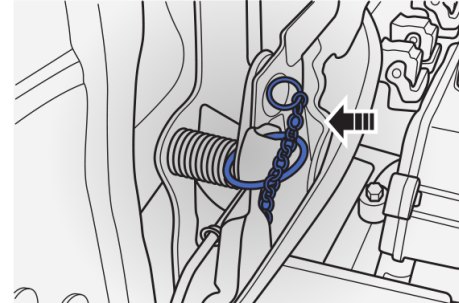
2. Under its own weight, the driver cabin will automatically tilt downwards.



3. After the driver cabin lowers to a certain angle, the lowering speed will slow down. Continue to press down the tilting handle ② until the limit handle ③ hooks the lock hook limit bracket on the frame.



4. Press down the safety lock handle ④ until the driver cabin is locked.

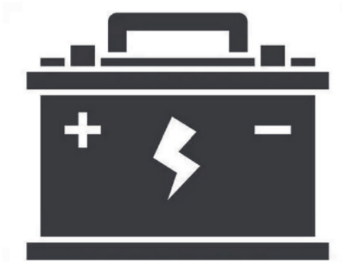


5. Insert the safety lock handle lock pin.

i Notice

- When the driver cabin automatically tilts downwards, avoid staying under the driver cabin.
- When tilting and lowering, please confirm that there are no other objects placed under the driver cabin.

Battery



Icon and description

Icon	Meaning
	No fire
	Keep away from children
	Beware of corrosion
	Beware of explosion

Icon	Meaning
	Wear protecting glasses
	Follow the specifications for operation

No fire

- When storing, replacing and using the battery, keep away from open flames and sparks, and prohibit contact with fire.

Keep away from children

- Batteries should be kept out of the reach of children to prevent children from being injured by strong acids or heavy metals.

Beware of corrosion

- There is strong acid liquid inside the battery. When moving, installing and replacing, personal protection should be done to

prevent the battery from being damaged and the acid liquid splashing out and causing injury.

Beware of explosion

- The battery has the potential to explode. When installing, avoid short circuits.
- When charging, pay attention to maintaining ventilation and protection.
- Keep away from open flames and sparks, and prohibit contact with fire.

Wear protecting glasses

- There is strong acid liquid inside the battery. When moving, installing and replacing, wear protecting glasses to prevent the battery from being damaged and the acid liquid splashing out and causing injury.

Follow the specifications for operation

- Battery should be operated in accordance with the operation requirements and local regulations to avoid accidents.

Store the battery

- Never store the battery in the open air. Be sure to protect the battery from rain and snow. Otherwise, external short circuit of the battery will be caused. Also, impurities could enter the battery, increasing self-discharge.
- Check status indicator of the battery (when the wire is disconnected). Ask Yutong authorized service personnel to charge the battery if it is undervoltage.
- When the vehicle is stored over 15 days, tilt angle of the battery shall not be over 10°. Never place the battery upside down or impact it. Keep it free from all mechanical shock or heavy pressure.

Battery

- Avoid direct sunlight and keep it over 2m away from the heat source (heating equipment, etc.).
- The battery shall be stored in a dry, clean and well-ventilated environment at temperature within 5-40°C. If the battery or the vehicle is not to be used for a long period of time, charge the battery fully first before storage. Otherwise, battery life will be affected.

⚠ Warning

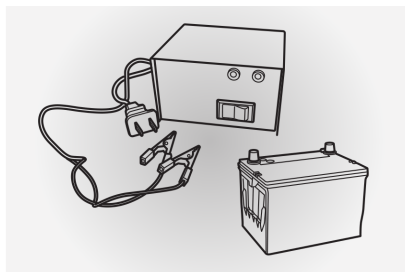
If there is acid on the surface of the battery, rust on the pole, etc., please contact Yutong authorized service personnel for cleaning.

i Notice

The battery should be kept out of reach of children to

prevent children from being injured due to strong acids, heavy metals and so on.

Battery charging by an external power supply



When an external power supply is required for charging, please contact Yutong authorized service personnel for operation, and the charging personnel need to wear insulating gloves.

 **Danger**

Failure to wear insulating gloves may result in electric shock or serious injury.

1. Turn off the ENGINE START STOP switch and all electrical components, and then turn off the power handle switch.
2. Disconnect both battery cables, first the “negative electrode” and then the “positive electrode”.
3. Connect the electrode clamp of the charging device to the positive electrode (red) and negative electrode (black or brown) of the battery, and after ensuring the connection is reliable, turn on and start the charging device for charging.
4. Charging is completed when the status indicator on the battery is green.
5. After charging, turn off the charging device, disconnect power supply cable, and remove electrode clamps of the charging

device.

6. For other precautions, please follow the requirements of the charging device manufacturer.

Warning

- Never charge the frozen battery to prevent the battery from bursting.
- Ensure good ventilation in the charging environment and avoid environments with smoke and fire.

Notice

- When charging, do not open the sealing plug of the battery.
- Please make sure the battery is flat and firmly connected before charging.

Replace the battery

Battery

For battery replacement, please contact Yutong authorized service personnel in time. Never operate by yourself.

Warning

The battery is corrosive and cannot be disassembled or repaired without permission.

Adjust the driver side seat

Adjust the seat armrest



- Lower the armrest and provide elbow support for the driver.
- Rotate upwards and retract the armrest.

 Notice

- Do not lean against or sit on the armrest, which may cause damage to the armrest.

Adjust the seat forward or backward



- Grasp the middle of the adjusting rod and pull it upwards, then use slight body pressure to slide the seatback forward and

Adjust the driver side seat

backward to the desired position and release the adjusting rod.

- After adjusting the front and rear positions, slide the seat forward and backward to ensure that you hear the sound of the slide rail locking, and confirm that the seat is locked in place.

⚠ Warning

- When adjusting the seat, never put your hands near the moving parts to avoid injury.
- Do not place items under the seat to avoid getting caught between the seat and the guide rail, which may hinder the movement of the seat and cause accidents.

Adjust the seatback



- Pull up the adjustment handle and use your back to lean against the seatback and tilt forward or backward, adjust to the desired position, and release the handle.

⚠ Warning

- Do not adjust the driver seat while driving to avoid

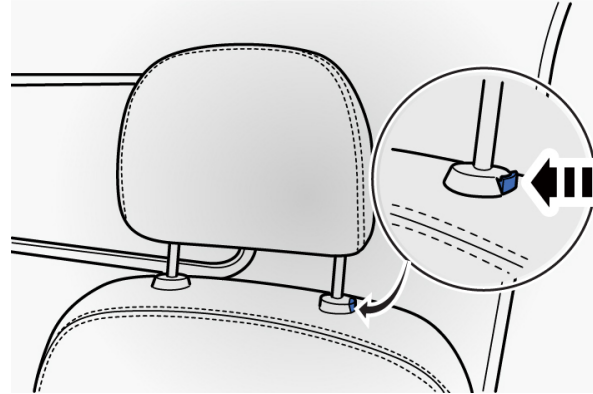
sudden tilting of the body, which may cause the lost of control of the vehicle.

- Before driving, it is necessary to adjust the seat correctly and wear seat belts. Improper sitting posture may lead to serious consequences.
- Never use a damaged or defective seat.

i Notice

- After adjusting the seat, the handle or button must be locked to avoid seat adjustment failure or seat damage.

Adjust the head rest



Lift the head rest

Pull up the head rest along the direction of the head rest rod to the appropriate position, and release it after hearing the locking sound.

Lower the head rest

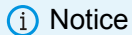
Press the head rest height adjustment button, lower the head rest to the appropriate position, and release it.

Remove the head rest

Press the head rest height adjustment button, remove the head rest, and release the button.

Install the head rest

Insert the head rest connecting rod into the bushing and keep the groove facing forward. Press the head rest height adjustment button, then press down the head rest to the appropriate position and release it.

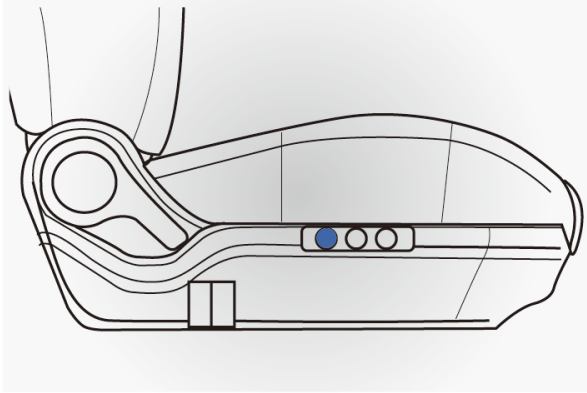


- Head rests can help you and your passengers avoid neck injuries and other head injuries.
- Do not tie anything to the head rest.

Seat belt

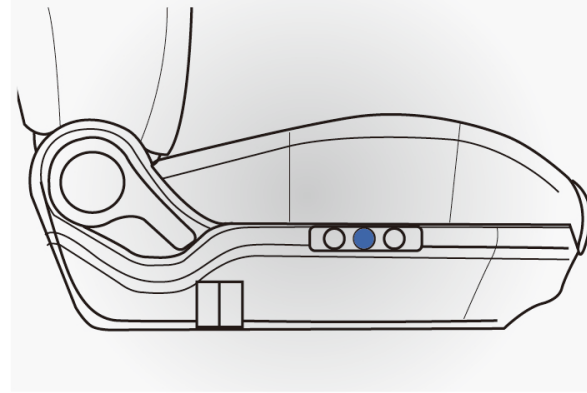
Refer to “Safety Information” for details.

Adjust the massage function (optional)



Press the button to switch between first gear, second gear, third gear and Off in sequence.

Adjust the heating function (optional)



Press the button to switch between second gear, first gear and Off in sequence.



Warning

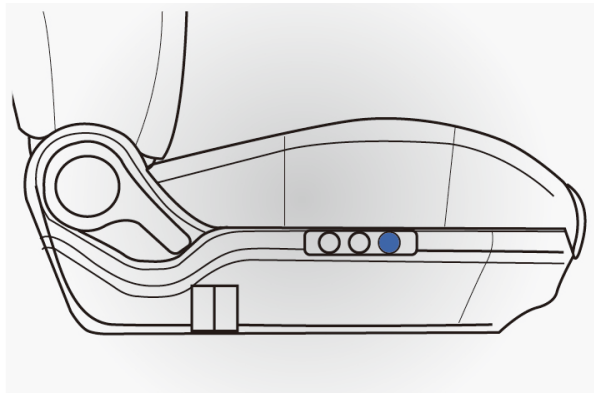
- People with limited pain perception and those with sensitive skin are strictly prohibited from using the

Adjust the driver side seat

seat heating for a long time, otherwise it may cause burns.

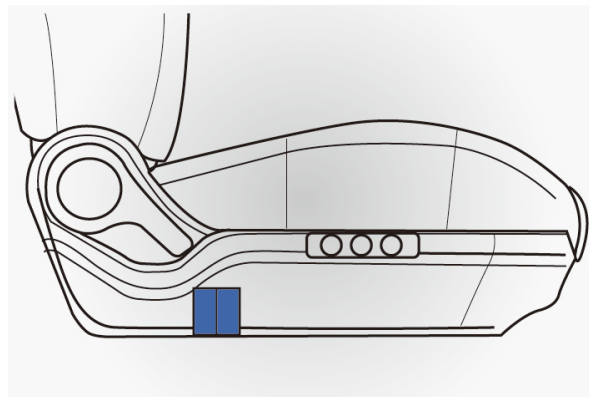
- When using the seat heating function, it is prohibited to cover the seat with a blanket or a cushion; or it may cause burn.

Adjust the ventilation function (optional)



Press the button to switch between second gear, first gear and Off in sequence.

Adjust the lumbar support (optional)



- Press the upper part of the button to adjust the lumbar support and release to lock.
- Press the lower part of the button to reset the lumbar support.

Adjust the side seat

Adjust the seatback



Pull up the adjustment handle and use your back to lean against the seatback and tilt forward or backward, adjust to the desired position, and release the handle.

⚠ Warning

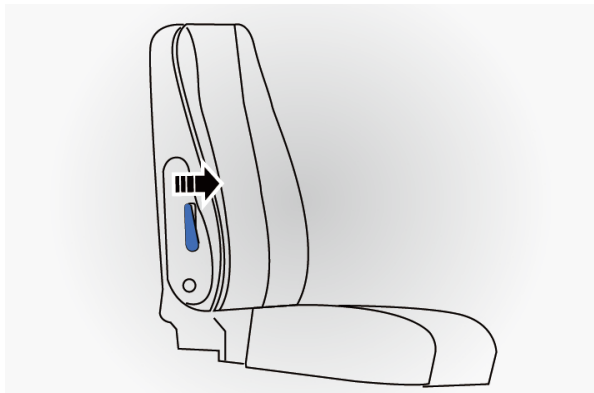
Before driving, it is necessary to adjust the seat correctly and wear seat belts. Improper sitting posture may lead to serious consequences.

i Notice

After adjusting the seat, the handle or button must be locked to avoid seat adjustment failure or seat damage.

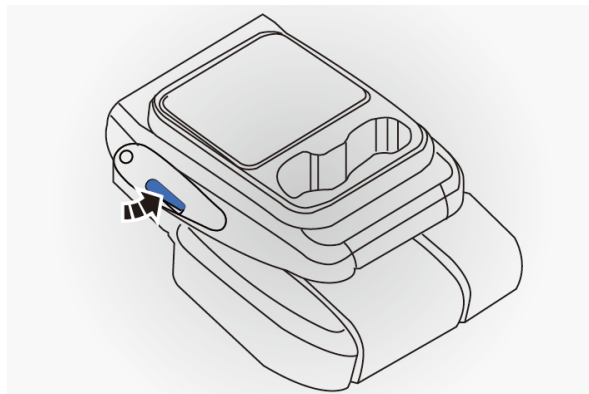
Adjust the middle seat back

Put the seat back flat



Push the handle to unlock the seat back, turn the seat back to the horizontal position to automatically lock it, and then release the handle.

Reset the seat back

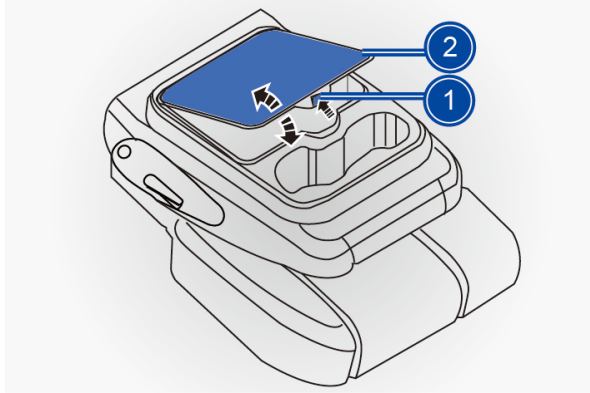


Press the handle to unlock the seat back, restore the seat back to its original position, and release the handle.

Notice

While adjusting the seatback, avoid bumping against it.

Open and close the storage box

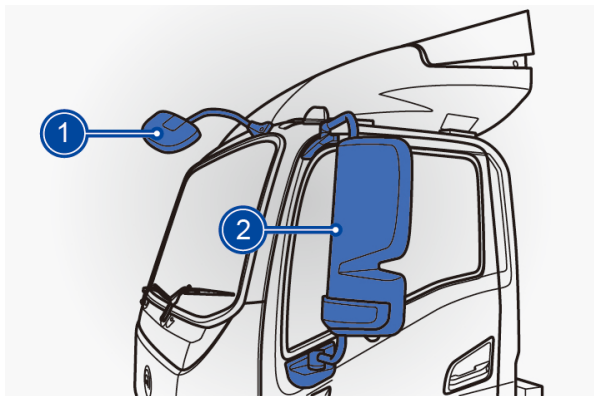


Press ① and rotate ② upward to open the storage box; turn down

② and press it to lock the storage box.

Rear-view mirror

Used to observe the road conditions behind, on both sides of and under the vehicle. Use a soft cloth to wipe the mirror surface until it is clear and the field of view is good.



1

Front downward-view mirror

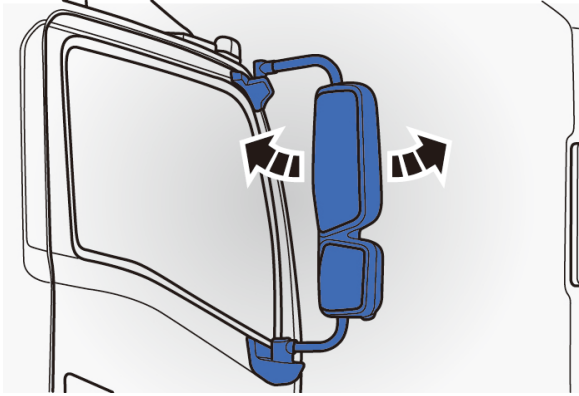
2

Exterior rear-view mirror

⚠ Warning

- Wiping the mirror surface may change the angle of the mirror surface, resulting in poor visibility and increasing the possibility of accidents. Please pay attention to adjusting the mirror surface to the ideal status in time.
- Unclean mirror surface cannot provide ideal rear-view effects, increasing the possibility of accidents.
- Before driving, check the field of view of the rear-view mirror; during driving, especially in rainy and foggy weather, please keep the rear-view mirror clean at all times.

Adjust the exterior rear-view mirror



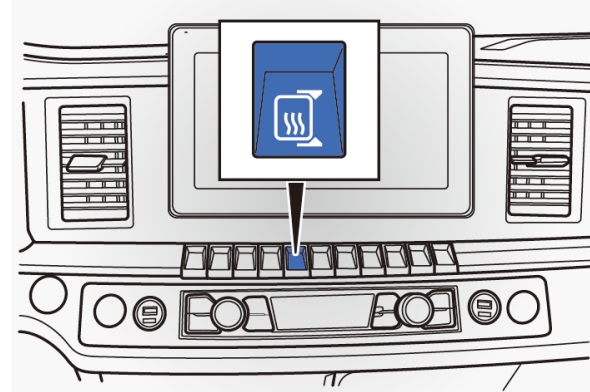
⚠ Warning

After wiping the mirror surface, if the mirror surface angle changes, please adjust it in time.

i Notice

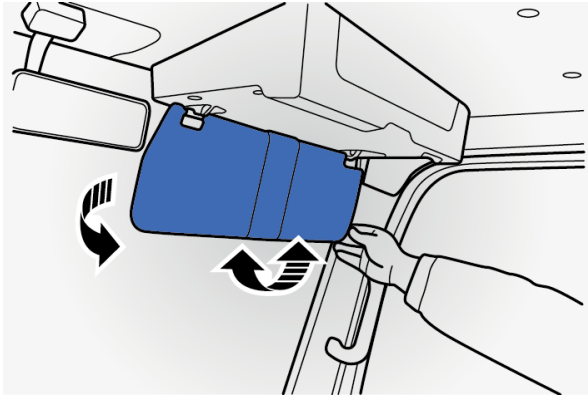
- Never adjust the rear-view mirror while driving.
- Never wipe the rear-view mirror while driving.

Lens defroster



Press this switch to heat the exterior rear-view mirrors to defrost and defog them. Press this switch again to stop heating.

Sun visor



It is used to block sunlight which comes in from the front windshield. When driving in strong sunshine, if light outside affects sight of the driver, the driver can adjust position of the sun visor as needed to get a good driving sight.

- Turn the sun visor downward to unfold the sun visor, and close

the sun visor in reverse order.

- Remove the sun visor from the hook, tilt it to the right, and use the sun visor on the side.

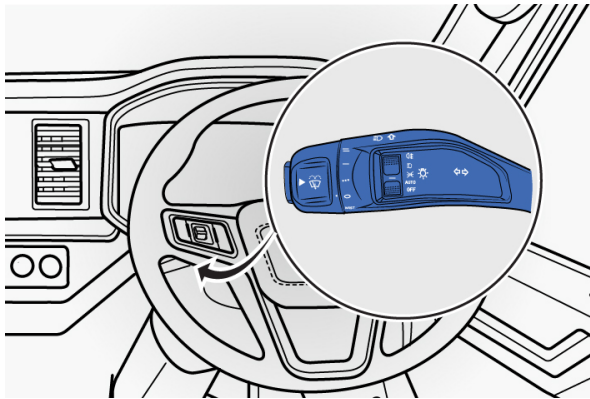
⚠ Warning

- Never adjust the sun visor at random while driving. Otherwise driving may be affected due to distraction, bringing a risk of traffic accidents.
- Never adjust the sunshade too low. Otherwise, it will block the field of view, affecting driving, and causing the risk of traffic accidents.
- Never hang items on the sunshade. Otherwise, it will block the field of view, and there is a risk of traffic accidents.

Wiper

The wiper is used to remove rain, snow and dust on the windshield.

Wiper combination switch



The control rod is used to control the windshield glass wipers and

washers. This rod is divided into five positions:

0 Turn off the wiper

MIST Inching gear position

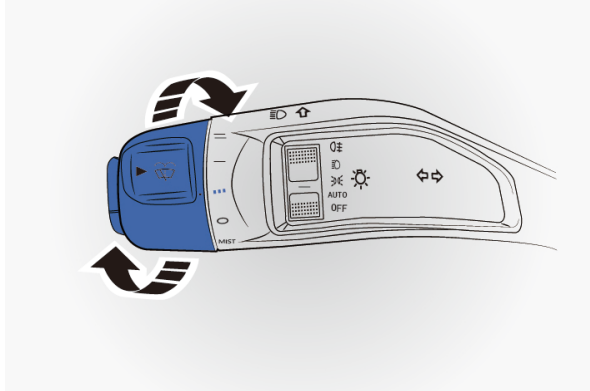
... Intermittent gear position

I - Low speed gear position

II - High speed gear position

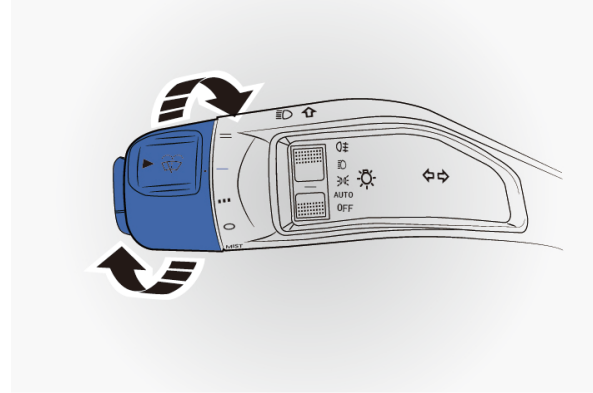
Use the wiper

Turn on the wiper intermittent gear



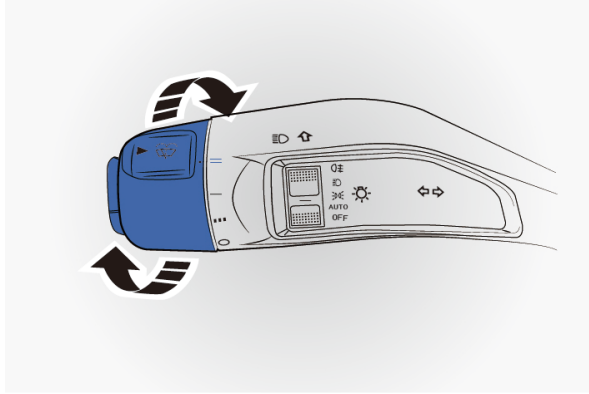
Turn the wiper combination switch to “...” gear position to turn on the wiper high-speed mode.

Turn on the wiper low speed



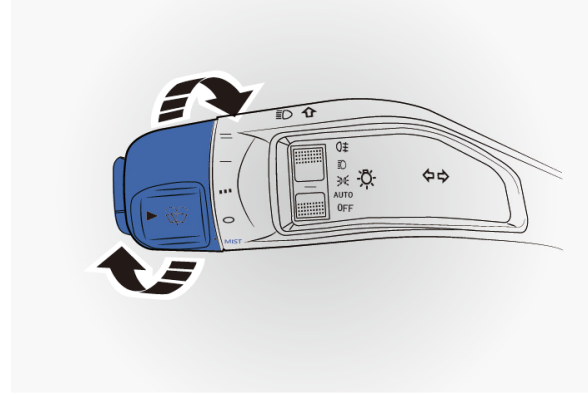
Turn the wiper combination switch to “I” to turn on the wiper low-speed mode.

Turn on the wiper high speed



Turn the wiper combination switch to "II" to turn on the wiper high-speed mode.

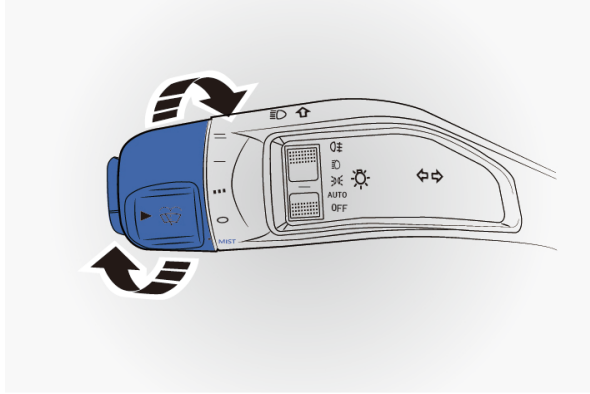
Turn off the wiper



After the wiper combination switch is turned from "0" to "MIST" gear position, it automatically returns to "0" gear position and wipers make one wipe.

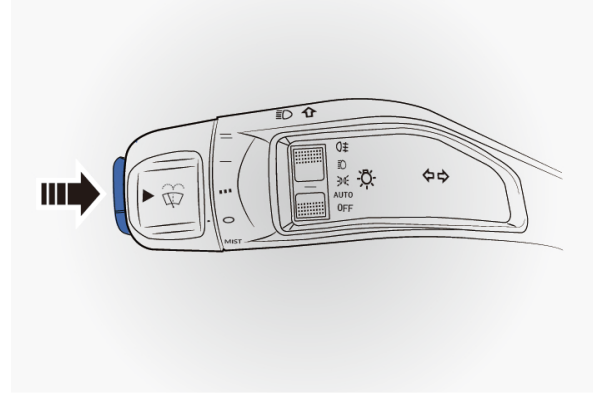
Turn off the wiper

Use the wiper



Turn the wiper combination switch to “0” to turn off the wiper.

Wiper spraying water

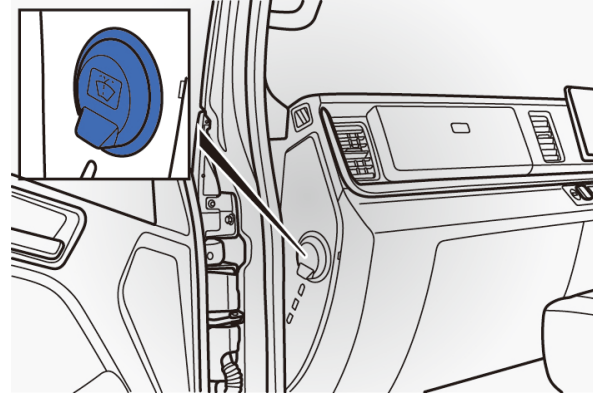


- Press the end of the switch, spray the washer fluid to the glass, loosen the handle to stop spraying the washer fluid.

Notice

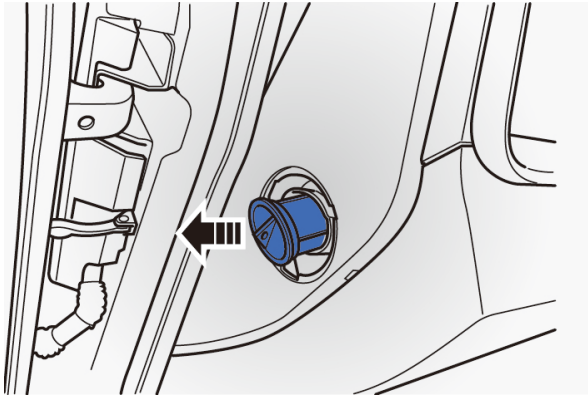
- The washer's water spraying motor must not work for a long time, and must not work for 30s consecutively when the washer is filled with water.

- Do not use the washer when there is no washer fluid or the washing water is frozen, otherwise it will cause damage to the washer motor.
- When the temperature is below zero, the washer fluid may freeze on the windshield, blocking the view. Turn on the warm air control switch to remove ice, and then use the wiper.



Add washer fluid

1. Open the passenger side door and open the access cover on the right side of the dashboard.

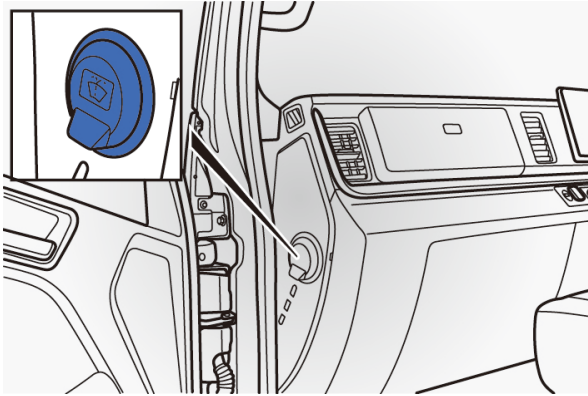


- In freezing weather, please add the antifreeze washer fluid of corresponding level.
- Never mix water into washer fluid.

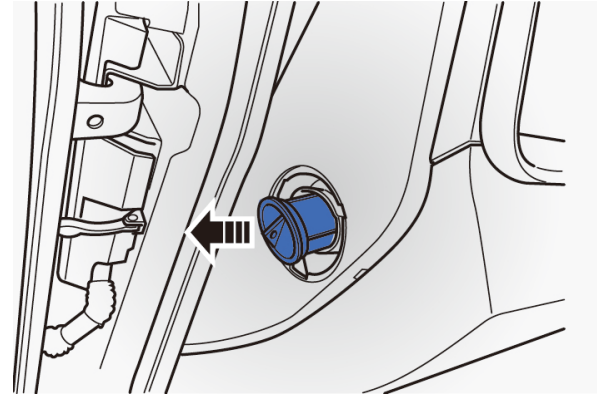
2. Pull out the washer fluid refilling port outward.
3. Check the liquid level in the reservoir. Add washer fluid, if necessary, according to the level gauge.
4. Close the washer fluid refilling port.
5. Close the access cover on the right side of the dashboard.

 Notice

Add washer fluid



1. Open the passenger side door and open the access cover on the right side of the dashboard.



2. Pull out the washer fluid refilling port outward.
3. Check the liquid level in the reservoir. Add washer fluid, if necessary, according to the level gauge.
4. Close the washer fluid refilling port.
5. Close the access cover on the right side of the dashboard.

 Notice

- In freezing weather, please add the antifreeze washer fluid of corresponding level.
- Never mix water into washer fluid.

Replace the wiper blade

Check before use

- Check whether the wiper blade is pressed on the glass.
- Check whether there are obstructions on the movement track of the wiper.

Warning

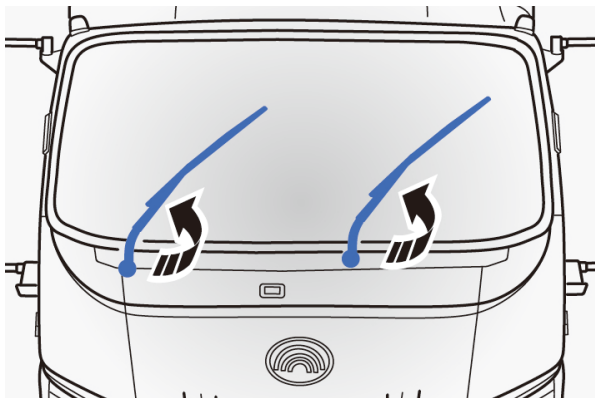
- Worn and dirty wiper blades can affect the field of vision ahead and reduce driving safety!
- Driving safety can only be ensured with a clear windshield field of vision.
- Wash the wiper blades regularly;
- Never use wipers without water.
- Never clean or soak the wiper blades with gasoline.

Notice

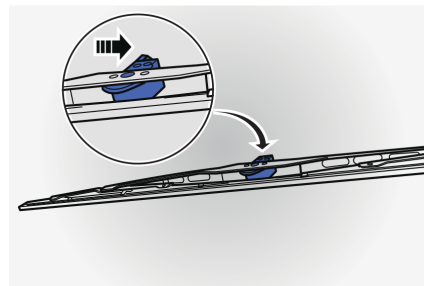
- If a wiper blade is damaged or cannot wipe the windshield clean, replace it in time.
- In the following cases, never turn on the wiper to avoid damage to the wiper:
 - No washer fluid is sprayed, dry running of the wiper.
 - Wiper blade is separated from the windshield.
 - Wiper blades are frozen.
 - A foreign object is found on the windshield.
- When using an automatic washer to wash the vehicle.

Replace the wiper blade

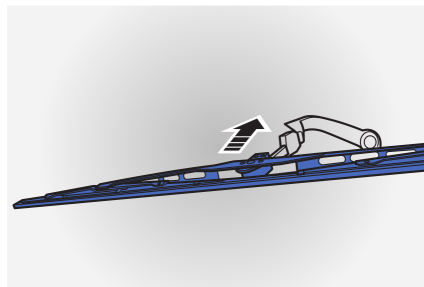
Replace the wiper blade



1. Lift the wiper arm from the windshield at a certain angle.



2. Press the wiper blade locking device in the direction of the arrow.



3. Push down the wiper blade and disconnect it from the wiper

arm joint, then remove the wiper blade.

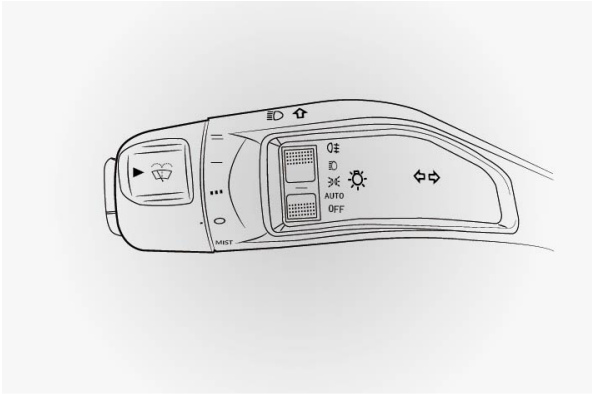
4. Install the new wiper blades in the opposite order.

 Notice

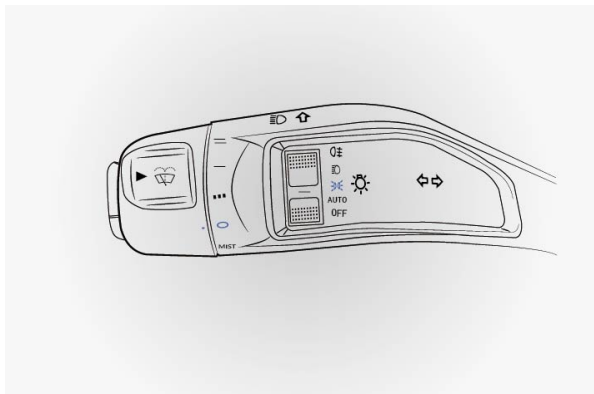
When placing wiper blades, never directly push the wiper arm and let the blades hit the windshield glass directly.

Combination lamp switch

Combination lamp switch



Turn on the clearance lamps



auxiliary role during driving, helping improve the visibility and safety of the vehicle.

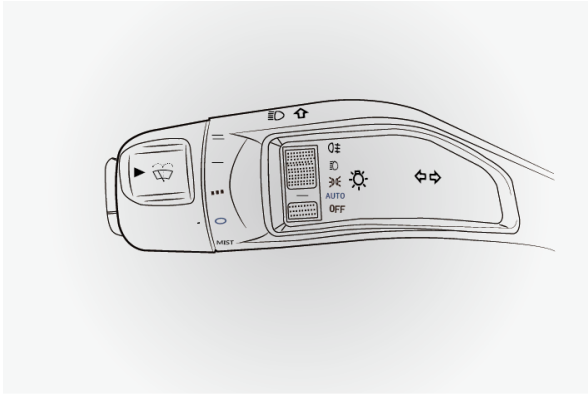
Turn the combination lamp switch to  position, the clearance lamps are turned on.

Notice

The clearance lamps play a marking, warning and

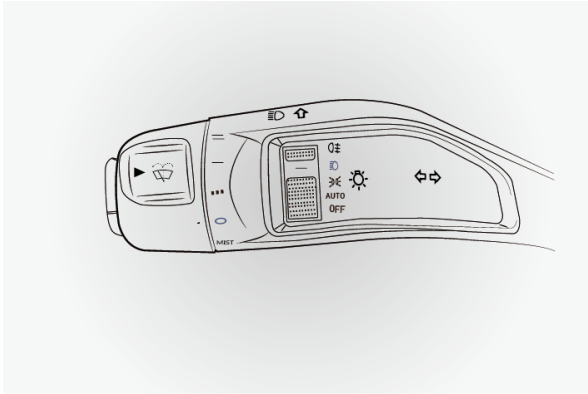
Turn on the auto light

Turn on the auto light



Turn the combination lamp switch to AUTO, when the light outside the vehicle is dim, the low beams are turned on.

Turn on the low beams

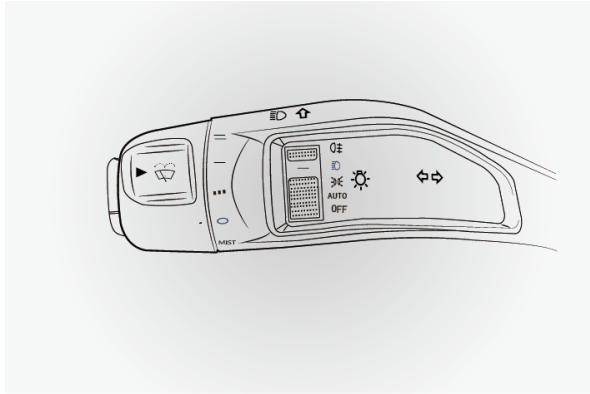


Turn the combination lamp switch to  position, the low beams are turned on.

Warning

Turn on in low daylight or nighttime environments.

Turn on the high beams

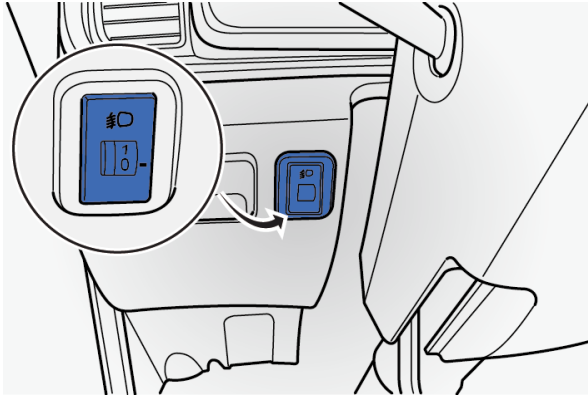


⚠ Warning

When oncoming vehicle approaches or following a vehicle at a short distance, the high beams will cause dazzling to others, affecting driving.

Turn the combination lamp switch to  position, and push down the combination lamp switch (away from the steering wheel) to turn on the  high beams; after the handle switch is reset, pull the combination lamp switch downward (away from the steering wheel) to turn off the high beams.

Headlight height adjustment



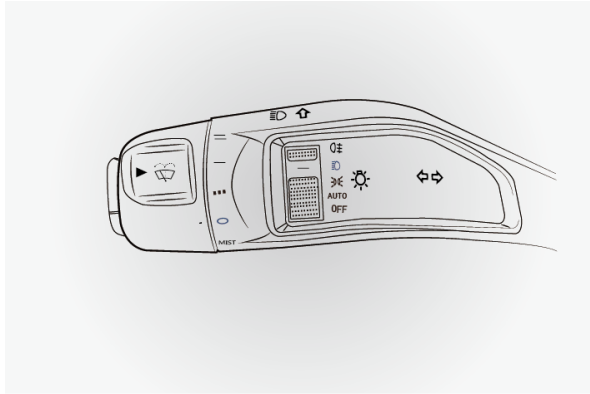
The manual light height adjustment function only provides a way to manually adjust the height of the headlights, and the adjustment process should comply with local traffic regulations and rules.

The headlight height adjustment provides four optional heights. Rotate the headlight height adjustment knob to select different headlight heights.

 Notice

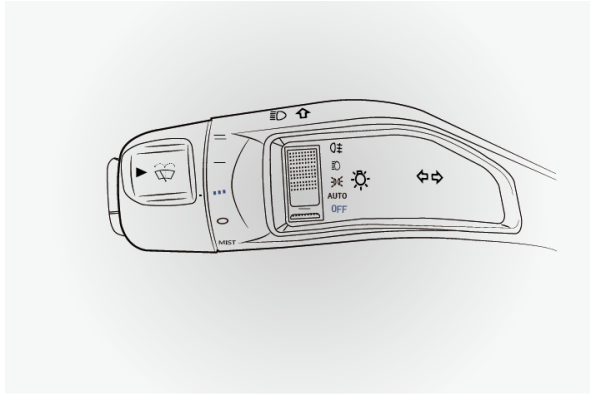
Turn on the overtaking lights

Turn on the overtaking lights



Lift the combination lamp switch upwards (close to the steering wheel) and the overtaking lights are turned on; after releasing, the combination lamp switch automatically resets and the overtaking lights go off.

Turn off the lights

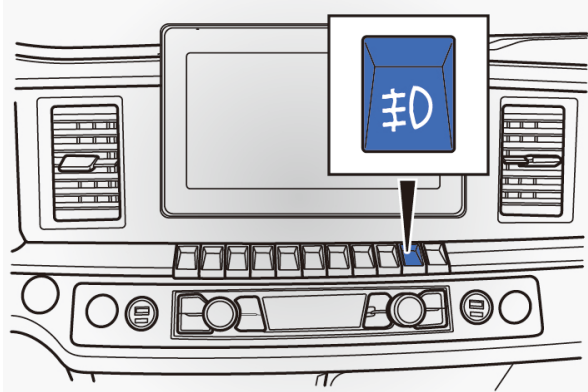


Turn the combination lamp switch to “OFF” to turn off the low beams, high beams, clearance lamps and side marker lights.

Turn on the fog lamps

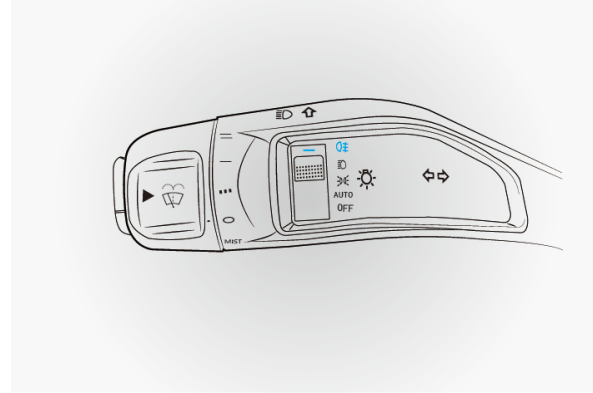
Turn on the fog lamps

Front fog lamps



Turn on the front fog light rocker switch to turn on the front fog lights.

Rear fog lamps



Turn the switch to the rear fog light position to turn on the rear fog lights.

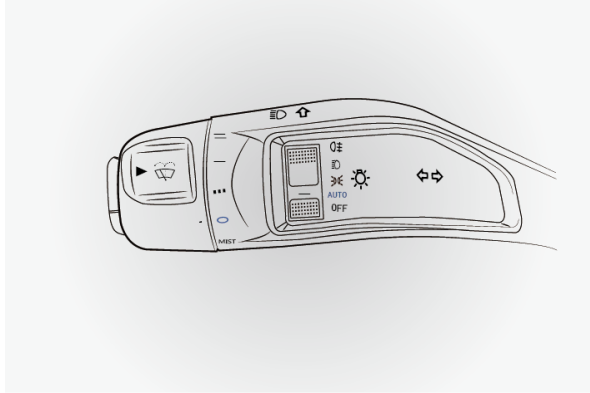
Notice

- When driving in low visibility weather such as rain or fog, turn on the front and rear fog lamps to obtain a

clearer view. At the same time, it can help other traffic participants obtain warnings from the vehicle.

- In good visibility conditions, it is not recommended to use fog lamps to avoid interference with other drivers.

Turn on the turn signal light



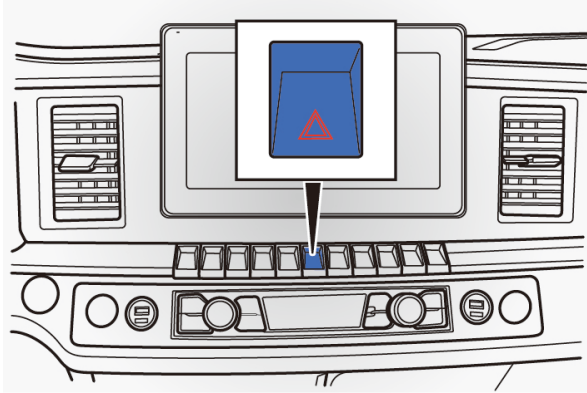
- Push the combination lamp switch upwards, the right turn signal light and the instrument turning indicator  start flashing simultaneously.
- Pull the combination lamp switch downwards, the left turn signal light and the instrument turning indicator  start

flashing simultaneously.

Notice

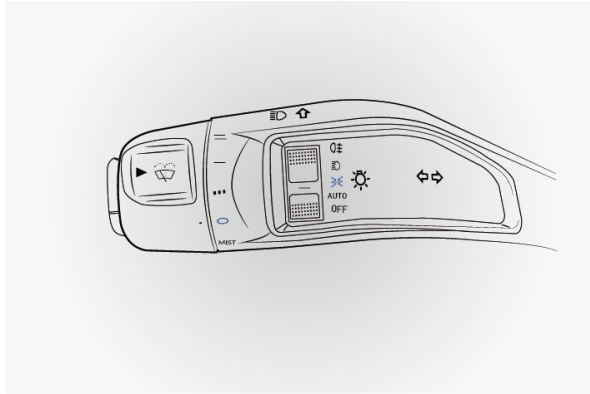
When the vehicle turns or changes lane, turn on the turn signal lights in advance to remind the surrounding vehicles and pedestrians to pay attention.

Turn on the emergency lamps



When the vehicle has a fault and cannot be moved to a safe area in time, press the emergency lamp switch immediately, all turn signal lights flash at the same time to warn other vehicles and pedestrians with warning signs.

Turn on the side marker lights



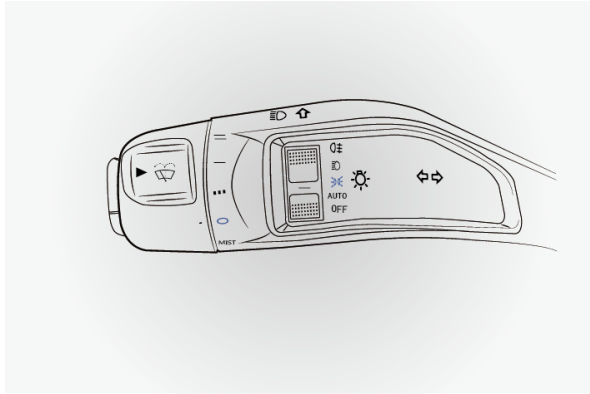
and improving visibility during driving, which helps promote safe and smooth road traffic.

Turn the combination lamp switch to  position, the side marker lights are turned on with the clearance lamps.

Notice

Side marker lights play a role in assisting in warning

Turn on the license plate light



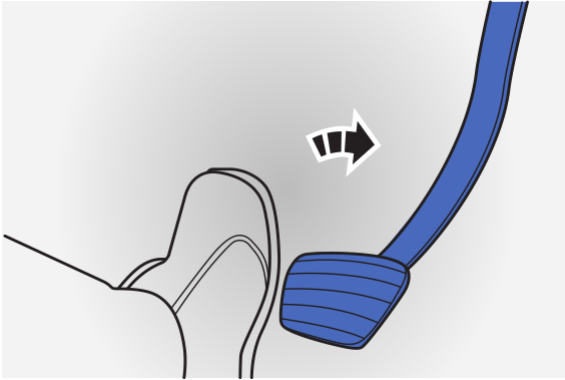
It is recommended to turn on the license plate light when driving at night or in low light conditions. License plate light can make the license plate number clear and visible, facilitating identification and verification by other drivers and traffic management personnel.

Turn the combination lamp switch to  position, the license plate light is turned on along with the clearance lamps to provide illumination for the license plate.

 Notice

Turn on the brake lights

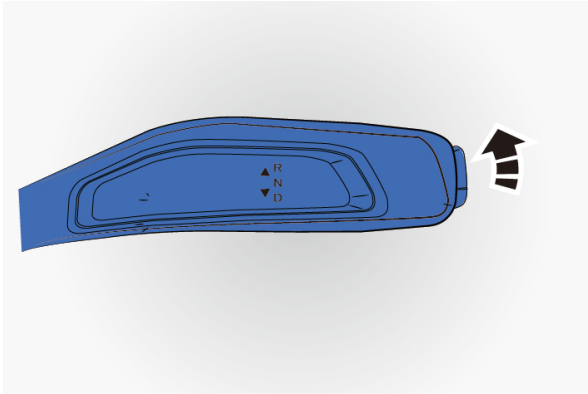
to stop or slow down to avoid rear-end accidents.



When depressing the brake pedal, the brake light are turned on.

The brake lights are located at the rear of the vehicle and will come on when the driver depresses the brake pedal. The illumination of the brake lights can promptly send a braking signal to the driver behind, reminding them to pay attention and prepare

Turn on the reverse lights



When the vehicle shifts to reverse gear, the reverse lights come on. Remind personnel behind the vehicle to pay attention.

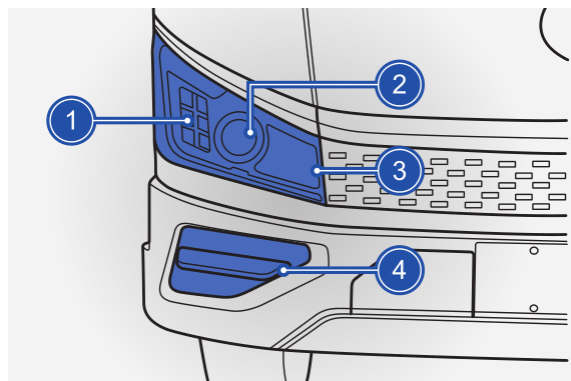
Turn on the daytime running lights

Turn on the daytime running lights

When the vehicle is started, the daytime running lights will automatically turn on without manual operation.

Lamps

Front wall lamps



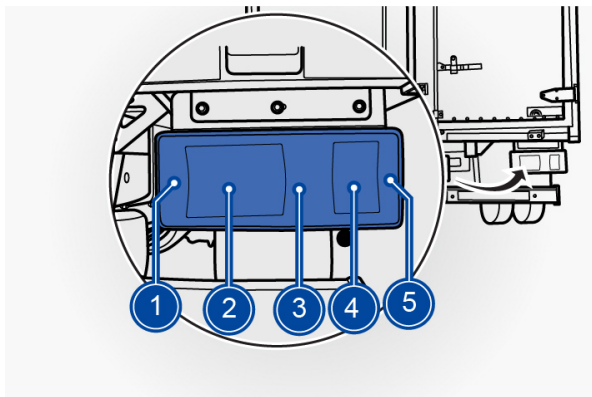
- ① Position light/turn signal light/daytime running light
- ② Low beam/high beam

- ③ High beam (auxiliary high beam)
- ④ Front fog lamp (optional)

Notice

Daytime running light: When the ENGINE START STOP switch is in the “ON” position and the position lights are turned off, the daytime running light will automatically turn on.

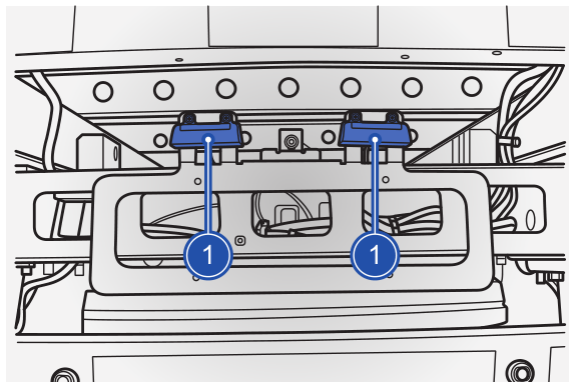
Rear wall lamps



- ① Rear fog lamp
- ② Turn signal light
- ③ Rear reflector

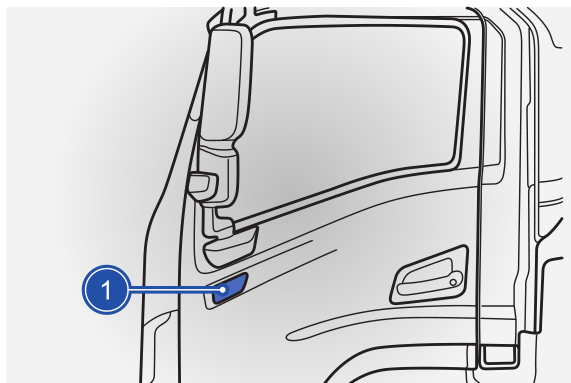
- ④ Reverse light
- ⑤ Brake light/rear position light

License plate lights



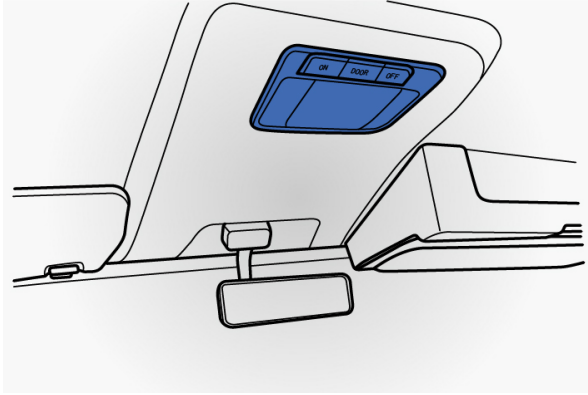
- ① License plate light

Side wall lamps



1 Side turn signal light

Driver cabin light



Turning On and Off

- **ON** key: The driver cabin light remains on regardless of whether the door is opened or closed.
- **DOOR** key: When the door is opened, the driver cabin light automatically comes on; when the door is closed, the driver

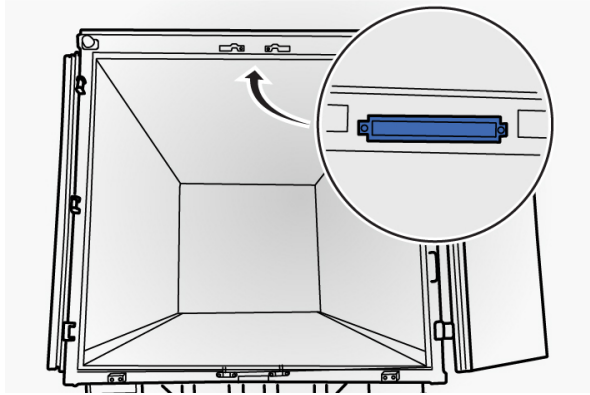
cabin light automatically goes off.

- **OFF** key: The driver cabin light does not come on regardless of whether the door is open or closed.

Prompt

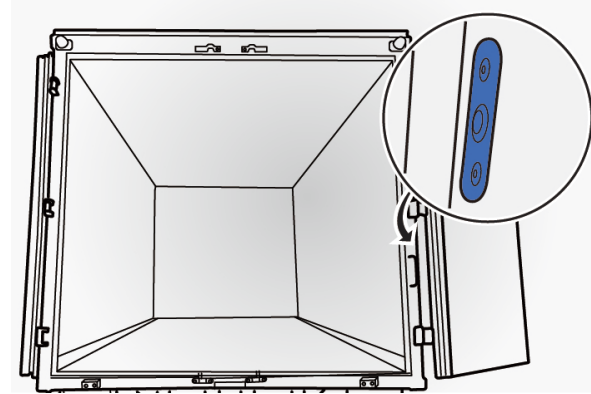
When driving at night, the interior lights may affect the driver's sight. It is recommended not to turn on interior lights at will.

Freight Box Light



The freight box light is located above the rear door inside the box.

Turning On and Off



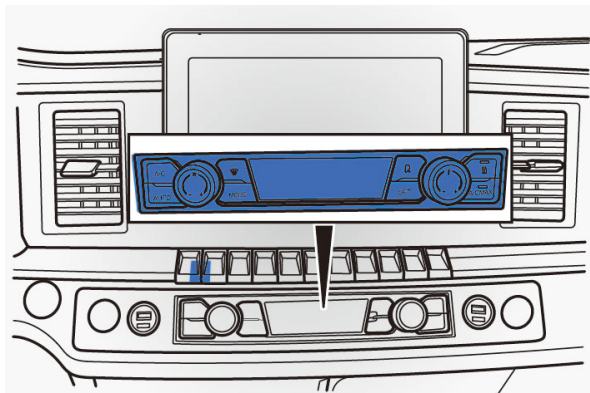
The freight box light switch is located on the inner side of the right pillar near the rear door of the freight box.

Notice

The freight box light provides sufficient illumination, ensuring a clear view of the freight box interior at any

time, whether during the day or at night.

A/C control panel



A/C Cooling key

- Press this key, and the key light will come on. And the A/C will start to cool when the blower is turned on.



One-touch defrosting/defogging key

- Press this key, and the A/C system enters the one-key defrosting and defogging mode.

MODE

Blowing mode switching key

- The cycle switches between face blowing, face blowing/foot blowing, foot blowing, foot blowing/defrosting, and defrosting.



Heating key

- Used to turn on/off the A/C heating mode.



Internal/external circulation key

- Used to switch the internal/external air circulation in the driver zone.
- When the key indicator comes on, the internal air circulation of

A/C control panel

the driver zone starts.

- When the key indicator goes off, the external air circulation of the driver zone starts.



Temperature adjustment knob

- When rotating it clockwise, the temperature goes from low to high.
- When rotating it counterclockwise, the temperature goes from high to low.
- After 3s of no operation during temperature adjustment, the setting is successful.



Air speed adjustment knob

- When rotating it clockwise, the air speed goes from low to high.
- When rotating it counterclockwise, the air speed goes from high

to low.

A/C MAX

A/C rapid cooling key

- Turn on the rapid cooling mode of the A/C to meet the demand for rapid cooling.

AUTO

Auto A/C key

- When operating the A/C automatically, press the key, the indicator on the key will come on, and the automatic mode will be turned on.

Cooling mode

Operating step

- Manual mode:
 1. Open the air outlet grille.
 2. Press the *A/C* key.
 3. Turn on the blower to the appropriate gear by rotating the air speed adjustment knob.
 4. Switch to the face blowing mode by pressing the blowing mode key.
 5. Adjust to the appropriate temperature by turning the temperature adjustment knob.

Notice

In the cooling mode, the driver cabin temperature can

reach the set temperature quickly, and be kept constant by automatic regulation of the compressor revolution and controlling the stop/start of the compressor. It is normal if the air outlet temperature is changed.

Heating mode

- The heating system equipped on the vehicle is a PTC electric heater.

Operating environment

- The heating function will be activated if the ambient temperature is low, generally below 10°C. Customers can also use this function according to their own heating demand.

Operating step

- Manual mode:
 1. Open the air outlet grille.
 2. Press the  key.
 3. Turn on the blower to the appropriate gear by rotating the air speed adjustment knob.
 4. Switch to the foot blowing mode by pressing the blowing mode

key.

5. Adjust to the appropriate temperature by turning the set temperature adjustment knob.

Notice

In the heating mode, the driver cabin temperature can reach the set temperature quickly, and be kept constant by automatic adjustment of the PTC power and controlling the stop/start of the compressor. It is normal if the air outlet temperature is changed.

Auto mode

1. Open the air outlet grille.
2. Press the key.
3. Adjust to the appropriate temperature by turning the set temperature adjustment knob.

Notice

In the Auto mode, the last cooling/heating/ventilation status is memorized by default. The Auto mode will exit by adjusting the blower position.

Recommendations for use:

- High temperature in summer
- Turn on the A/C rapid cooling mode for rapid cooling by clicking the A/C MAX key. After the appropriate temperature is reached,

an appropriate temperature may be set in the Auto mode for constant temperature regulation.

- Low temperature in winter
- Meet the demand for rapid temperature rise by moving the blower to the maximum position. After the appropriate temperature is reached, an appropriate temperature may be set in the Auto mode for constant temperature regulation. For heating, priority is given to the foot blowing or defrosting/foot blowing mode, avoiding the face blowing mode.

Notice

- The A/C compressor and PTC electric heater are powered by the vehicle power supply. Before starting the A/C, turn on the vehicle power supply. Otherwise, the A/C can not work. Before turning off the A/C, the

key must be placed in the "LOCK" position before powering off. Do not cut off the power when the A/C is operating.

- The A/C cannot be turned on when the SOC of the vehicle is lower than 12%.
- For cooling, never allow cold air to blow to the glass directly, which may cause mist and affect the driver's field of vision.
- Do not open the windows and doors when the A/C is operating, which may affect the cooling or heating effect of the A/C.
- If the vehicle is parked for a long time and the interior is directly exposed to high temperature, the interior may be cooled down rapidly by opening the windows and doors for a short time to ventilate the vehicle.

- If the ambient temperature and humidity are high, it is normal that condensed water in the cooling equipment flows on the ground under the vehicle from the drain hole in the front wall of the driver cabin.
- The most comfortable temperature range for human body is 22-26°C, which is good to the human body to adapt to temperature difference between inside and outside of the vehicle as soon as possible, and good to lowering energy consumption.
- Under cloudy and rainy weather conditions with high humidity, the internal air circulation is recommended to avoid condensed water near the air outlet on the dashboard.
- If the ambient humidity is high and the A/C is turned

on for cooling, do not open the doors or windows for a long time to avoid condensed water formed near the surface of the A/C box.

- If the A/C works abnormally, turn off the A/C in time and contact Yutong authorized service personnel as soon as possible to avoid further losses.
- Start the A/C again at an interval of 3min or longer, with the starting time of 2min or longer. Do not start the A/C more than 10 times per hour to avoid damage to the compressor.
- Turn off the A/C first and then vehicle power supply to avoid compressor fault.

Ventilation mode

and close the windows a few minutes later.

Turn on the blower and set the air inlet mode to external circulation mode to meet the demand for ventilation and air change in the driver cabin.

Operating step

1. Open the air outlet grille.
2. Select the ventilation mode by clicking the  internal/external circulation key.
3. Adjust the blower to the appropriate gear through the knob.

Notice

Unpleasant odor may occur in the vehicle if the vehicle is parked for a long time. When using the A/C, the user shall first open the windows in the initial running phase

Front windshield defrosting

Operating step

- Method I:

Click the  one-touch defrosting/defogging key.

- Method II:

Switch to defrosting or foot blowing/defrosting mode by pressing the ^{MODE} blowing mode key, and select cold air/warm air/natural air.

Warning

- If the A/C suddenly stops, observe whether the A/C cooling, heating and defrosting functions are all turned off (for example, whether the A/C and PTC

indicators go off). If not, stop the vehicle as soon as possible and power off without affecting the driving safety, avoiding damage to the A/C parts and components.

- Do not turn off the ventilation mode for a long time. If the cooling equipment is turned off when no fresh air enters the vehicle, the window glass may be misted, causing a risk of accident!

Notice

When defrosting and defogging, make sure that the air outlet in the front of the dashboard is not blocked.

Video Player

The integrated central console can realize functions such as listening to the radio, playing music, and linkage control with the multi-function steering wheel, and also supports reverse view and video monitoring.

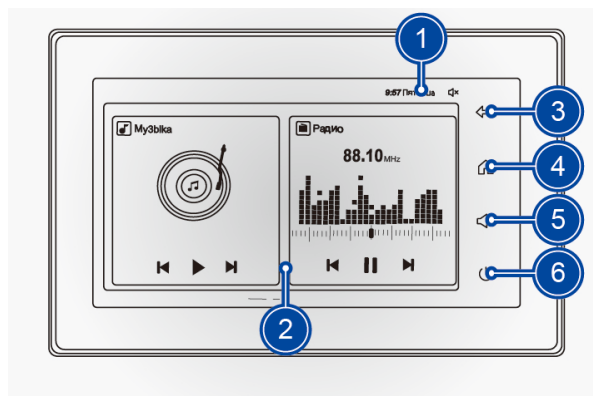
Notice

- Do not spill liquid on the screen, otherwise it may cause the fault of the center console device.
- In extremely hot or cold environments, the product performance may be affected, and it will return to normal when it returns to normal ambient temperature.
- Please do not disassemble or repair the center console display without permission. If you need to

repair, please contact Yutong authorized service personnel in time.

- Do not use strong chemicals, cleaning agents or strong detergents to clean the device, if necessary, wipe it with a soft item.
- Do not use sharp objects, such as ballpoint pens, knives, etc., to operate the center console display.

Introduction of panel functions



1 Information area:

- Display time, Bluetooth status, etc.

2 LCD screen:

- Slide the screen left and right to switch the interface.

3 ← Back key:

- Click to exit the application after entering the application.

4 🏠 Homepage key:

- Click to return to homepage.

5 🔊 Volume adjustment:

- Click and enter the volume adjustment interface to adjust the volume with the interactive progress bar.

6 ⏻ Power supply button:

- Turn on/off the display screen.

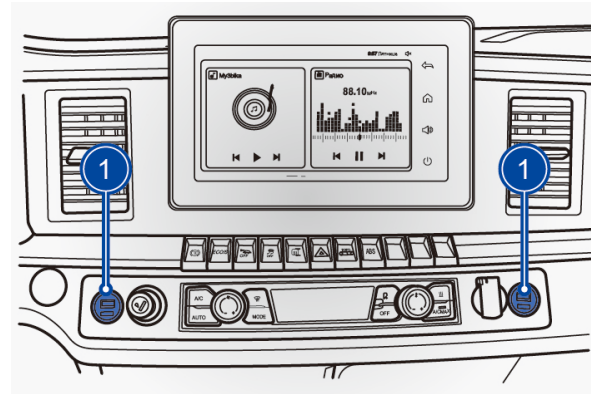
Function description

- This product is only as an auxiliary tool during driving. It does not mean that you can be distracted, careless or lose the judgment when driving. If you need to operate this system, please park your vehicle at a safe place. Do not watch the video during driving.
- If your vehicle is parked in direct sunlight and therefore the interior temperature is too high, use it after the interior temperature drops. If your vehicle is parked in the open air under very cold whether conditions, start the vehicle first and wait for the temperature to rise before using this product.
- The center control product is designed with a high-definition capacitive screen. Do not scratch the display screen with a sharp object or press the display screen vigorously with a hard object, which will cause damage to the display screen.
- The functions are varied with different models. Some functions are optional, depending on the vehicle model and subject to the

physical model.

- If the center console display has been disconnected from the battery for a long time, some information stored in the center console display may return to the initial value and need to be reset.

USB interface





USB port

- It has a rated voltage of 5V and a current of 2.1A. It is only for charging a mobile phone or tablet.

Media player

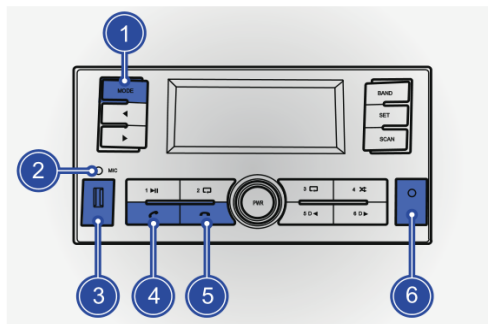
The media player has the following functions: listen to radio, save and play audio files, adjust sound volume of microphone and so on.

Notice

- Do not spill liquid on the screen, otherwise it may cause the fault of the device.
- In extremely hot or cold environments, the product performance may be affected, and it will return to normal when it returns to normal ambient temperature.
- Please do not disassemble or repair the device without permission. If you need to repair, please contact Yutong authorized service personnel in time.

- Do not use strong chemicals, cleaning agents or strong detergents to clean the device, if necessary, wipe it with a soft item.

Mode switching area overview



1 MODE Mode switching:

- Used to change the operating mode of the radio and external

devices. The switching sequence is: Radio/Bluetooth/USB/AUX.

2 MIC:

- Microphone for Bluetooth calls.

3 USB:

- USB port.

4 Answer key:

- In the Bluetooth call mode, after the Bluetooth is successfully connected, press this key to answer or make a call.

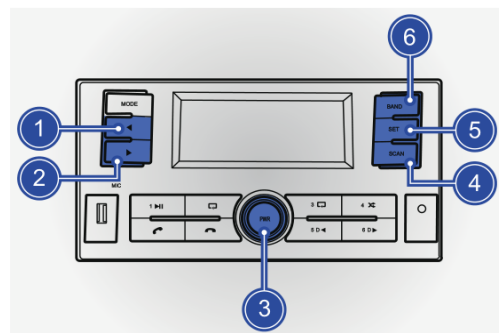
5 Hang up key:

- In the Bluetooth call mode, after the Bluetooth is successfully connected, lightly press this key to hang up an incoming call, or activate the Mute function in case of no incoming call.

6 AUX interface:

- Used to play audio files via the AUX cable.

Functional adjustment area overview





Previous track:

- Press this key to switch to the previous track.
- In the Radio mode, lightly press this key to manually search upward the radio channels. Press and hold for automatic search radio channels upward.



Next track:

- Press this key to switch to the next track.
- In the Radio mode, lightly press this key to manually search downward the radio channels. Press and hold for automatic search radio channels downward.



PWR Power supply key:

- Press and hold it to turn off the sound, with display brightness

halved and clock display presented. Turn on the sound by pressing the key again. After the sound is turned on, the backlight will be displayed, and the backlight of functional keys comes on, and then the machine operating status is displayed. Rotate this knob left and right to adjust the volume or sound effect mode.



SCAN key:

- In Radio mode, lightly press this key to search and save radio channels automatically.



SET key:

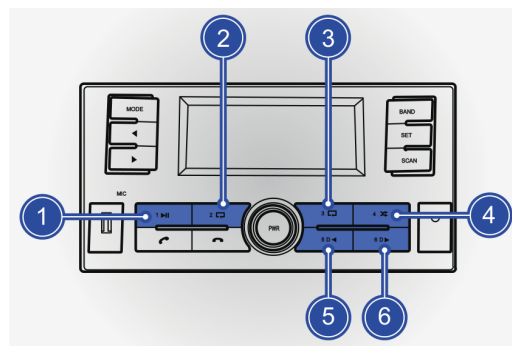
- Press it briefly for sound effect setting, switching BAS (bass) to TRE (treble) to BAL (balance) to EQ (equalization).
- Press and hold it for the DISP function, press and hold the SET

key for the clock display. Now, the LCD screen displays the clock. In Clock mode, press and hold this key to display hour (HH); then, press this key briefly, the minute (MM) flashes. Rotate the VOL key to adjust the MM. In the clock mode, press and hold this key to flash the clock. Rotate the VOL key to adjust the clock, which will be automatically confirmed and saved without operation after 3 seconds.

6 BAND key:

Lightly press this key in Radio mode, and the band will cycle in a way of FW1-FW2-FW3-AM1-AM2.

Channel selection area overview



1 Play/Pause:

- In Play mode, lightly press this key to pause the playing of the current MP3 track, and press it again to resume the playing status.

2 Full loop:

- In the Play mode, press this key to enable looping of all songs.

- In Radio mode, lightly press the key to play the saved radio channels. Press and hold this key to save the current radio channel onto this number key.



Single-track repeat function:

- In Play mode, lightly press to play a single track, and then lightly press it again to resume the normal order of playing.
- In Radio mode, lightly press the key to play the saved radio channels. Press and hold this key to save the current radio channel onto this number key.



Random function:

- In Play mode, lightly press to play randomly a single track (not subject to the original order), and then lightly press it again to resume the normal order of playing.

- In Radio mode, lightly press the key to play the saved radio channels. Press and hold this key to save the current radio channel onto this number key.



Previous folder selection:

- In Play mode, if the second folder is being played, lightly press to play the first folder.
- In Radio mode, lightly press the key to play the saved radio channels. Press and hold this key to save the current radio channel onto this number key.



Next folder selection:

- In Play mode, if the second folder is being played, lightly press to play the third folder.
- In Radio mode, lightly press the key to play the saved radio

channels. Press and hold this key to save the current radio channel onto this number key.

Reversing Monitor System

The reversing monitoring screen can be displayed on the video player to assist the driver in safe driving.

1. Start the vehicle and shift to Reverse gear, the display will show the image transmitted from the reversing camera with a delay of 1s-2s.
2. Perform reversing in combination with the exterior rear-view mirrors and interior rear-view mirror.
3. After reversing, deactivate R gear, and the screen displays the previous image.

Warning

- The reversing monitor system only provides reversing assistance. Never rely solely on the

reversing monitor system to drive.

- Never adjust the reversing monitor system or watch video entertainment programs during driving.

Notice

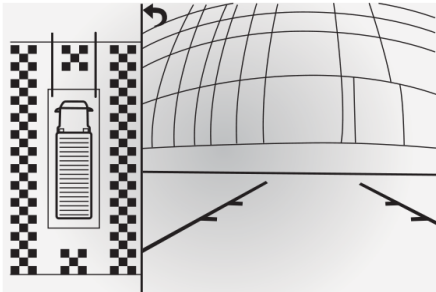
- If the camera image is blurred, wipe the camera with a clean cloth.
- Don't splash liquid into the reversing monitor system, which may cause a short circuit or malfunction of the reverse monitoring system.
- Never use corrosive detergents to clean the reversing monitor system.

360° Panoramic View System

This system can display the angle of view around the vehicle in all directions to facilitate safe driving.

Notice

The 360° panoramic view system is used to assist driving the vehicle, which cannot completely replace the driver.



- The display interface features a bird's-eye view on the left and a single view on the right.
- The bird's-eye view is composed of images from the four cameras (front, rear, left, and right), while the single view displays images from one selected camera (front, rear, left, or right).
- A small icon at the top center of the single view helps users to quickly identify which single view is currently displayed.
- A warning message, "Please ensure the safety of the surrounding environment", is displayed below the single view.

Access 360° panoramic view

1. Click the "360° panoramic view" soft switch on the center console display to enter. The single-view area defaults to displaying the 2D front view.
2. Move the left/right steering lever to enter. The single view area

defaults to displaying the 2D left or right view, respectively.

3. Shift to the R gear to enter. The single-view area defaults to displaying the 2D rear view.

Switch views by gear

- When switching from a non R gear to R gear, the single view area displays a 2D rear view.
- When switching to a non R gear, the single view area displays a 2D front view.

Switch views by steering lever

- In a non R gear state, when the steering lever is turned to the left, the single view area displays a 2D left view.
- In a non R gear state, when the steering lever is turned to the right, the single view area displays a 2D right view.

Touch to switch views

- Click the top, left, right, or bottom areas of the bird's-eye view

icon to display the 2D front, left, right, or rear views in the single view area.

Exit 360° panoramic view

- Click the upper left corner of the single view to return to the arrow area and exit the 360° panoramic view.
- When vehicle speed is greater than 30km/h, 360° panoramic view will exit.
- After turning the left/right steering lever to enter the 360° panoramic view, if no other operations are performed, the steering lever returns to the center and 360° panoramic view will exit.
- After entering the 360° panoramic view in R gear, if no other operations are performed and the R gear is switched to a non R gear, 360° panoramic view will exit.

 Warning

- Never block the cameras and radars.
- Do not move, disassemble, or modify the parameters of the cameras and radars, otherwise the 360° panoramic view system will be disabled.

Prompt tone

Low-speed prompt tone

- Electric vehicles make less noise while driving, and in order to attract the attention of surrounding road users (such as pedestrians, vehicles, etc.), the vehicle is equipped with loudspeakers on the outside. When the vehicle speed is low, a sound is emitted through the loudspeaker to remind surrounding road users that a vehicle is approaching.

Notice

- When the vehicle is stationary or the vehicle speed is greater than 20km/h, the low-speed pedestrian warning sound will not sound an alarm prompt tone.
- If the vehicle does not emit a warning sound when driving at a low speed, please go to a service center

for inspection or repair.

Reversing prompt tone

- The reversing voice prompt tone is a voice prompt system used in vehicles. It mainly emits a prompt tone when the vehicle is reversing to warn surrounding pedestrians or vehicles to ensure safety.
- The system is usually composed of a speech synthesis chip, a sound amplifier and a loudspeaker. When the vehicle is engaged in reverse gear, the speech synthesis chip will output an audio signal according to the preset voice prompt content. After being amplified by the sound amplifier, it drives the loudspeaker to make a sound.
- The advantage of the reversing voice prompt tone is that it can provide a more intuitive and three-dimensional sound prompt

effect, which is more eye-catching than traditional reverse lights. It can better attract the attention of surrounding pedestrians or vehicles and reduce the occurrence of reversing accidents.

Inspection before Driving

Before checking, to ensure driving safety, the following items need to be visually inspected or adjusted before the vehicle starts to move:

High-voltage component

1. Before inspecting, make sure that the power handle switch is off.
2. Tilt the driver cabin and visually inspect high-voltage components inside.

Inspection items are as follows:

- Observe whether the mark line on high-voltage cable gland is misplaced.
- Observe appearance of the high-voltage cable to check if there is any color change and abnormal status, such as yellow, black,

ablation, bulge, damage, interference, etc.

- Observe whether the manual service disconnect is inserted in place without gaps, free of looseness.
- Tilt the driver cabin and confirm it is locked in place.
- Once a high-voltage component is found abnormal, please contact Yutong authorized service personnel immediately for repair. Non-Yutong authorized service personnel are strictly prohibited from approaching the high-voltage components or performing any operation on the vehicle.

Danger

- Never inspect the high-voltage components with power on. Otherwise, electric shock casualties may be caused.
- If the manual service disconnect is abnormal, non-

Yutong authorized service personnel must not touch it. Otherwise, personal injury and death could be caused due to electric shock.

- Always visually inspect the high-voltage components during routine inspection and never touch any part of the high-voltage components. Otherwise, personal injury and death could be caused due to electric shock.
- Inspectors are strictly forbidden to wear metal trimmings. Otherwise the trimmings conduct electricity, and could cause personal injury and death due to electric shock.
- Never touch, cut, remove or open the high-voltage components at will. Otherwise, personal injury and death could be caused due to electric shock.

Safety equipment

- Check and confirm that the fire extinguisher and fire extinguishing bomb can be used normally.



Warning

If the fire extinguishing facility has expired or has insufficient pressure, replace it with a qualified one before driving the vehicles. Otherwise, in case of a vehicle fire, the fire extinguisher cannot be used.

Vehicle appearance and environment

- The windshield glass is clean and undamaged.
- Surface of the rear-view mirror is clean and undamaged.
- Exterior lamps should not be damaged in appearance.
- Check around the vehicle to confirm that there are no children, animals, obstacles, or other factors that affect driving.

⚠ Warning

- Failure to remove dirt from the front windshield and rear-view mirrors in time may cause traffic accidents during driving due to poor field of view.
- If the damaged lamps are not replaced in time, liquid may enter the lamps and cause a fire due to short circuits.
- Failure to replace damaged lamps in time may affect the driver's vision and cause traffic accidents.

Compartment door

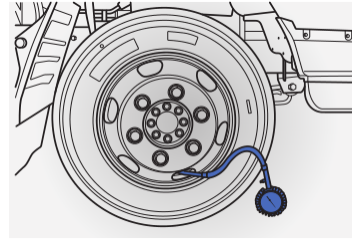
Check each compartment door to confirm that it is locked in place.

⚠ Warning

If a compartment door is not locked in place, it may

open due to vibration during driving, causing a safety accident.

Tire and wheel



- Check the tire pressure. The tire pressure is different depending on tire brands and models.
- Check and confirm that the specifications and conditions of tires used on the vehicle are consistent.
- Check whether bolts and nuts of wheel, wheel hub and wheel hub cap are complete and installed properly. Replace the

damaged component in time if there is any damage.

- Check the tire tread pattern and appearance. make sure that there are no cracks, bulges, foreign matters, or abnormal abrasion on the tread. If there is any abnormality, inspect and repair in time.
- Check whether there is any sharp object on the ground around the tire. If any, remove it in time. Otherwise, the sharp object may puncture a tire when the vehicle starts to move.

Warning

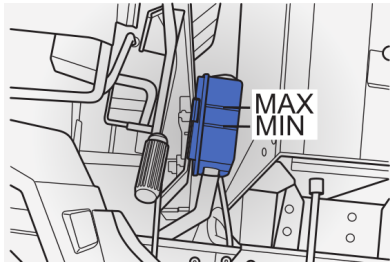
- Too high a tire inflation pressure will lengthen the brake distance, accelerate wear, reduce tire life, or even cause tire to burst, possibly leading to loss of vehicle control.
- Too low a tire inflation pressure will increase energy consumption.

- Too high or low a tire pressure may affect vehicle handling stability, or even lead to traffic accidents.
- Never use tires with different specifications. Otherwise, loads of tires will be uneven, tire wear will be increased, vehicle handling stability could be affected while driving, or a traffic accident could occur.
- Never mix new and old tires together. Otherwise, the tire will be under heavy load, leading to over-heat or tire burst.
- Failure to replace a cracked or bulging tire timely may cause a tire burst during driving, leading to loss of vehicle control.
- When removing foreign object penetration from the tire pattern, take proper protection measures.

Otherwise, personal injury may occur.

- Failure to timely replace a damaged wheel or wheel hub or to supplement missing wheel nuts may cause the wheel to crack or fall off, leading to traffic accidents.

Coolant level



The coolant level must be between **MAX** and **MIN** marks of the expansion tank.

⚠ Warning

To add or replace the coolant, it needs to be cooled first to prevent the steam and hot coolant from spraying out and causing burns.

i Notice

- Never use water as the coolant or add water to the coolant system in use. Otherwise, scaling and coolant precipitation may occur, causing rusting of cooling system components, and even icing may occur in cold areas, affecting the operation of the vehicle.
- Never mix coolants of different manufacturers, formulations, or grades. If they are mixed, chemical reactions such as precipitation will occur,

performance of the coolant will attenuate or fail, and corrosion of the coolant system and failure of the water pump seal will be caused.

- Choose the coolant with a freezing point lower than the lowest temperature of the vehicle operating area to avoid icing of the coolant. Otherwise, vehicle damage could be caused.
- Never refill or reuse the discharged coolant. It has attenuated performance and contains impurities. When using it again, requirements of anti-corrosion and rust prevention for the vehicle cannot be met.

Washer fluid level

Check the fluid level of the washer, and add it in time when it is insufficient.

Warning

Add washer fluid in time if it is insufficient. Otherwise, dry wiping could occur, causing wiper blade and windshield damage. Also, the dirty windshield that is not well cleaned by the wiper could affect the driver's vision, causing safety accidents.

Fluid pipelines, air pipelines

- Visually check that there is no oil or liquid dripping from the lower part of the vehicle. If any, report for repair in time.

Warning

- If there is seeping of fluid pipelines, the vehicle must not depart. Otherwise, more serious seeping may be caused by vibration and stress during driving, leading to abnormal operation of vehicle, or even fire.

Inspection before Driving

- Check that there is no leakage in the air circuits. If there is any leakage, report for repair in time.

Warning

- If the vehicle has air leakage fault, it must not depart. Otherwise, insufficient air pressure may cause insufficient braking force and other faults, leading to safety accidents.

view. Otherwise, the driver could not make determinations in time in case of emergency due to poor view, resulting in safety accidents.

View

Sit in the driver seat and check the visual field. Ensure that the visual field from the front windshield and the rear-view mirrors is clear and unobstructed.

Warning

When driving a vehicle, the driver must have a good

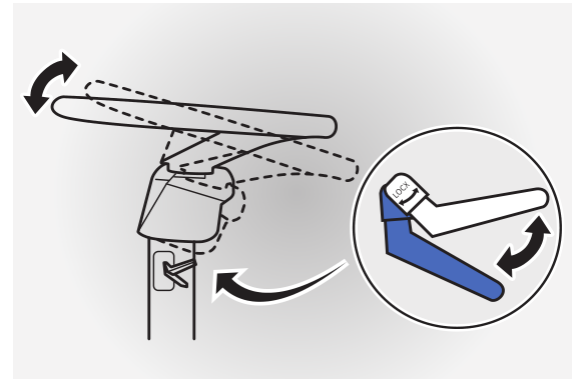
Correct driving position



To ensure driving safety, it is necessary to adjust according to the following steps:

1. Sit upright with feet on the floor.
2. Adjust the seat to ensure that you can depress the pedal comfortably and operate the rocker switch freely.

3. Adjust the steering wheel position. Release the locking lever near the steering pillar. Turn over the steering wheel forward and backward to adjust the front and rear position and angle of the steering wheel.
4. Pull the steering wheel up or down to adjust its up or down position, ensuring that the steering wheel does not block the instrument and can be controlled comfortably and easily.



5. After adjusting the steering wheel, adjust the locking lever to the original locking status to lock the steering wheel position.

Notice

When adjusting the seat and steering wheel, the vehicle must be stopped. Never adjust the seat or steering wheel during driving as it will affect driving safety.

Warning

- Before adjusting the seat, make sure that there are no obstacles around the seat.
- Never tilt the seat back excessively, otherwise the seat belt will not provide effective protection, which will increase the injury to personnel in the event of an

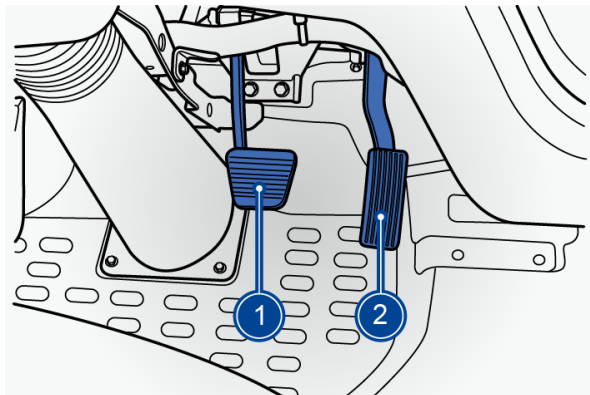
accident.

- Failure to sit in correct sitting posture may result in failure to take effective actions to avoid or mitigate injury in an emergency.
- Never install a seat cover to the seat. It will reduce the friction between body and seat.

Notice

Please fasten the seat belt correctly .

Pedal area



1 Brake pedal:

- Control vehicle to slow down and stop.

Free stroke of the brake pedal:

- The free stroke (caused by the clearance between the push rod of the brake pedal and the ball socket of the brake valve) of the brake pedal shall be 8mm to 12 mm.

2 Accelerator pedal:

- Control the vehicle to start off and accelerate.

! Warning

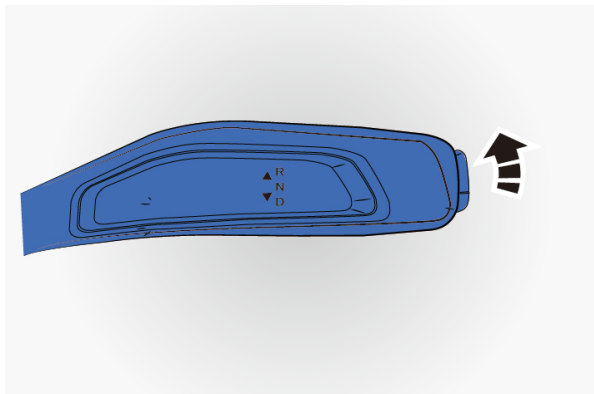
- When depressing the pedal, depress with the entire sole instead of the tiptoe or heel only. Otherwise, the pedal could not be depressed in place, causing traffic accidents.
- Never place floor mat in pedal area; otherwise, it will affect movement of pedal, that is, the pedal could not be depressed fully or return in place.

- Do not place anything in the driver foot area. Otherwise, articles may slide into the pedal area, affecting operation of the pedal, leading to traffic accidents.
- Never operate pedal with naked feet. Also, never operate the pedal when wearing platform shoes, high heels, slippers and other shoes that affect operation of pedal. Otherwise, the pedal may not be depressed to the proper position, causing traffic accidents.
- Never depress accelerator pedal and brake pedal with the left foot. Never place the right foot on the left footrest step. Otherwise, in case of emergency, the correct pedal could not be depressed in time.
- Never depress the brake pedal with the left foot and the accelerator pedal with the right foot. Never

depress both pedals at the same time. Otherwise, a collision accident may occur.

- If accidental acceleration or uncontrollable speed occurs during driving, release the accelerator pedal immediately and quickly depress the brake pedal to stop the vehicle, please contact Yutong authorized service personnel in time. Never continue driving. Otherwise, traffic accidents may occur.
- When the vehicle moves without the accelerator pedal being depressed, the right foot shall stay on the brake pedal. Otherwise, in case of emergency, a wrong pedal may be depressed, the vehicle will accelerate abruptly, and accidents may occur.

Gear switch



① R: Reverse gear

② N: Neutral gear

③ D: Drive gear

Gear shift operation

Description of gear shift	Operation of gear shift
Shift to N gear	Toggle the automatic transmission manipulation device to the corresponding gear position to directly switch to neutral gear
Shift N gear to D gear or R gear	Depress the brake pedal and toggle the automatic transmission manipulation device to the corresponding gear position
Shift D gear to R gear	Shift to neutral gear when parking, depress the brake

Gear switch

Description of gear shift	Operation of gear shift
Shift D gear to R gear	pedal and then toggle the automatic transmission manipulation device to shift gears
Shift R gear to D gear	Shift to neutral gear when parking, depress the brake pedal and then toggle the automatic transmission manipulation device to shift gears



Danger

- Never operate violently or with excessive force. Otherwise, the combination switch may be damaged,

affecting driving safety.

- If the combination switch functions abnormally, never drive, otherwise it will affect the safety of the vehicle. Please contact Yutong authorized service personnel in time.
- Never leave the seat if the gear is not at the “N” position or the parking brake is invalid! Otherwise, the vehicle may slip and cause collision accidents.



Warning

Never leave the seat if the gear is not at the “N” position or the parking brake is invalid! Otherwise, the vehicle may slip and cause collision accidents.

 Notice

- To shift between D and R gears, the vehicle must be stopped completely. Also, such shift must pass through N gear.
- To put the vehicle in the D gear (“N” to “D” or “N” to “R”), depress the brake pedal when “READY” is displayed on the combination instrument.
- Vehicle does not switch from “N” to “D” or “R” when the accelerator pedal is depressed.
- If you do not follow the instructions, the vehicle will not be put into any gear. The combination instrument will display the corresponding gear.
- Never spill any fluid on the gear panel. Otherwise, the panel will be damaged, affecting usage of the vehicle.

Inspection before starting

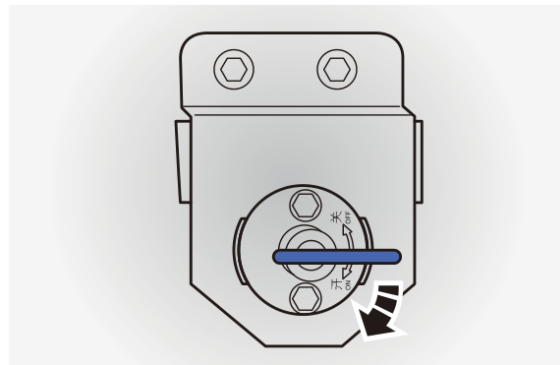
Inspection before power-on

1. Before turning on the ENGINE START STOP switch, make sure that the vehicle is in parking status.

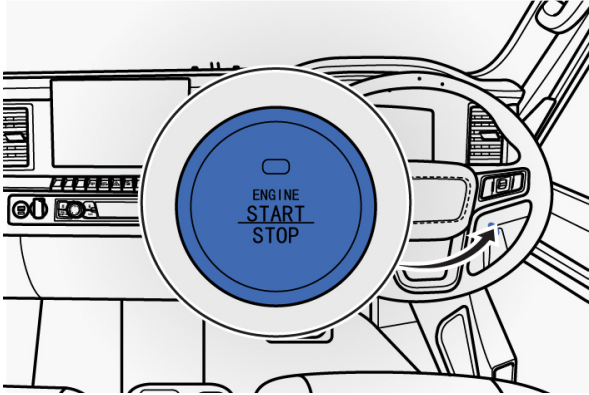


Warning

Never perform operations such as power-on when the vehicle is not parked, otherwise it cause danger.



2. Turn on the power handle switch.



3. Depress the brake pedal, and press the ENGINE START STOP switch to start the vehicle.

Check of the vehicle status and functions

Inspection of combination instrument

- Ensure that the battery capacity meets the needs for normal driving.
- Ensure that there is no warning information on the combination instrument.

Notice

- Before the combination instrument completes its self-inspection or when a red indicator does not go off in the self-inspection, the vehicle must not start to move, to avoid more serious faults.
- The combination instrument displays that the low-voltage power supply of the vehicle is $\geq 26V$.

Check wiper and washer

- Check operation conditions of the wiper and washer. If there is any abnormality, inspect and repair in time.

Warning

When the wiper and washer can not operate properly, the wiper will not clean the front windshield in time in rainy, snowy, or foggy weather, affecting the driving vision and possibly causing safety accidents.

Check and adjust field of vision

- Check the field of vision of the rear-view mirror. When the mirror surface angle of the rear-view mirror changes due to wiping of mirror surface, vehicle vibration, etc, adjust the mirror surface angle in time.

Warning

If the rear-view mirror is not adjusted and the desired vision is not available, the risk of accidents will increase when the vehicle starts off and travels.

Check defroster function

- Check whether the defroster works normally and whether the defroster outlets are opened and adjusted to the best angle.

Warning

If the defroster cannot work normally or the air outlet is blocked, handle in time. Otherwise, the frost and fog on the windshield cannot be removed during driving, affecting driver's vision and even causing safety accidents.

- Check whether the lighting and signal devices work properly.

Warning

If the lamps work abnormally, it is necessary to troubleshoot before the vehicle starts to move.

Inspection of pedals

- Before starting the vehicle, check whether there is any obstacle affecting movement of accelerator pedal and brake pedal within their full stroke. Ensure that pedals can be depressed fully and return to initial positions freely.
- Before the vehicle starts to move, check whether the accelerator pedal and brake pedal have completely returned to the initial position. Ensure that the initial opening of the accelerator pedal is in the initial status.

Inspection of illumination and signal lights

Danger

- If pedals cannot work and return to the initial position without obstacles, safety accidents may be caused.
- The accelerator pedal must be in initial status before the vehicle starts to move. Otherwise, the vehicle may suddenly accelerate when it starts off, resulting in collision accidents, personal injury and death.

Check of steering

- Keep the parking brake applied, turn the steering wheel to left or right to check whether the steering operation is smooth.

Danger

- If the steering system is stuck, makes abnormal noises or is lack of steering assisting power, please contact Yutong authorized service personnel in time.

The vehicle with an abnormal steering system must not start to move. Otherwise, traffic accidents may occur due to failure of turning, causing vehicle damages and personal injury or even death.

- After turning the steering wheel fully, never continue applying force. Avoid failure of steering system parts and components, resulting in safety accidents.
- Never turn the steering wheel while fully depressing the brake pedal in order to reduce the additional load on the steering system parts and components.

Starting

1. Keep correct driving position.
2. Keep parking brake applied and close all doors (doors have been closed completely and the instrument displays doors are closed).

Danger

Never drive the vehicle with any door opened. Otherwise, passengers may be thrown out during driving, causing personal injury or death.

3. Depress the brake pedal and shift to D gear (or R gear).

Danger

Never shift gears while depressing the accelerator pedal. Otherwise, the vehicle will suddenly rush out,

causing collision accidents and personal injury or death.

4. Release the parking switch while keeping depressing the foot brake, and then the parking brake indicator  on the combination instrument goes off and the parking brake is released.
5. Turn on left (or right) turn signal lights. Sound the horn twice (except in the no honking zone) to warn the surrounding vehicles and pedestrians. Confirm that surroundings are safe. If the field of vision is not good, turn on low beams, fog lamps and clearance lamps.

Danger

Check the surroundings of the vehicle to ensure that

there is no factor affecting the driving safety before driving. Otherwise, property damages or personal injury may occur.

Be sure to check that all passengers' arms, heads or other parts of the body do not stick out of the vehicle. Otherwise, safety accidents may occur.

6. Check that the gear is selected correctly, release brake pedal and depress accelerator pedal gently to start off.

Danger

Never depress the accelerator pedal fully to start off. Otherwise, the vehicle will accelerate too fast when it starts to move, possibly causing collision accidents and personal injury or death!

When the vehicle is waiting for charging or in charging status, it cannot output power. To move the vehicle, remove the charging plug first. Then move the vehicle according to the operation requirements!

7. Perform short distance trial drive

Notice

After the vehicle starts to move, the driver shall carry out a short distance trial drive to check that the accelerator pedal, brake pedal, and steering wheel function normally. Otherwise, vehicle components may function abnormally during driving, resulting in collision accidents and personal injury or even death.

Operation during driving

Requirements on driver status

- Never drive the vehicle after drinking alcohol, taking state-controlled psychotropic or narcotic drugs or when the physical or mental status is not good. The driver's response time will be delayed under the influence of alcohol, drugs, or a poor mental or health status, affecting the judgment and coordination ability of the driver, and causing a traffic accident and even personal injury and death.
- Fatigue driving is not allowed. Fatigue driving will affect the driver's ability to control the vehicle, delay the response time, and affect judgment and coordination ability, which may cause an accident or even serious personal injury or death. Always drive with caution. Pay attention to wrong actions of other traffic participants on the road at all times to make judgment in time to prevent accidents.
- Drive with great concentration. Anything that distracts the driver, such as adjusting control buttons, making or answering mobile phone calls, wiping front windshield, chatting with others or reading information not related to driving may cause collision accidents and personal injury or death.
- While driving, hold the steering wheel with both hands properly. Please do not operate the steering wheel with one hand. Otherwise, collision accidents and personal injury or death could be caused by improper turning.
- Never wear headphones while driving. Otherwise, prompt tone from the instrument and exterior cannot be heard. Traffic accidents and personal injury or death could be caused.
- No one is allowed to drive or move a vehicle without Yutong's formal driving operation training. Otherwise, property damages

or personal injury may be caused.

Requirements while driving

- When driving, obey local laws and regulations as well as traffic regulations. Keep the principle of comity in mind. Never overload or overspeed. Never change lanes randomly.

Warning

The higher the vehicle speed is, the longer the brake distance will be. This is not conducive to the driver's handling emergency in time, easily causing collisions accident.

- Pay attention to controlling following distance.

Warning

Never follow other vehicles too close. Otherwise, if the

vehicle ahead brakes suddenly, rear-end collision could occur.

- When the vehicle starts to move, depress the accelerator pedal slightly.

Warning

- If you depress the accelerator pedal violently, the vehicle may abruptly accelerate, causing vehicle collision accidents.
- Never depress the accelerator pedal fully for a long time. Otherwise, vehicle collision accidents may occur due to a high vehicle speed.
- If accidental acceleration or uncontrollable speed occurs during driving, release the accelerator pedal

immediately and quickly depress the brake pedal to stop the vehicle. Turn on the emergency lamps (emergency flashers). Please contact Yutong authorized service personnel in time. Never continue driving. Otherwise, vehicle collision may occur.

- Pay attention to height limit signs, width limit signs and other warning signs. Check whether the vehicle meets the passing conditions. If the vehicle meets passing conditions, pay attention to other vehicles and slow down and pass safely.

Warning

- Forced passage without checking height limit signs, width limit signs and other warning signs may cause vehicle damages.

- Pay attention to road condition when driving. When the reflected light ahead is largely different from that of road surface around, slow down in advance and drive slowly to pass.

- Pay attention to road condition when driving. When the reflected light ahead is largely different from that of road surface around, slow down in advance and drive slowly to pass.

Warning

When reflection of road surface is abnormal, the road surface could be wet and slippery due to water or oil. If the vehicle passes such a road at a high speed, the vehicle may skid to one side, which could cause

collision or rollover.

- When driving the vehicle, avoid passing curbs, stone edges or other obstacles with sharp edges. Otherwise, tire damage or even tire burst may occur.

Warning

If obstacles with sharp edges cannot be avoided during driving, reduce the vehicle speed and return for check in time. Otherwise, tires may overheat and burst during driving, causing vehicle accidents and personal injury or death.

- After the vehicle stops completely and the parking device works (pull up the parking switch or depress the brake pedal), open the doors. It is prohibited to open the doors while driving.

Warning

- While driving normally, never open the doors. Otherwise, other traffic participants could be injured, leading to personal injury or death.
- Never open the doors without parking brake applied in any manner.
- The driver and co-driver shall not stretch any part of body out of windows during driving, to avoid personal injury.

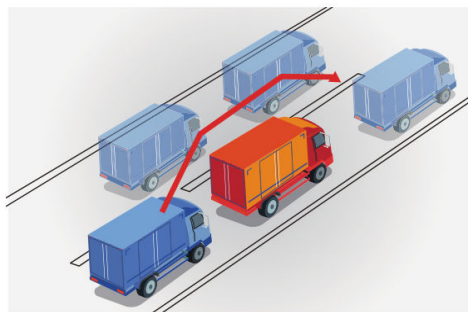
- Keep correct driving position while driving.
- While driving, always keep sound level of video and audio system below moderate. Thus, warning sounds from interior and exterior can be heard by the driver. In addition, pay attention to road conditions all the time. Otherwise, vehicle collision accidents could be caused.

- During driving, if the steering system gets stuck, makes abnormal noise, or lacks assisting power, stop the vehicle to a safe place at once. Then, place a warning sign or a reflective sign at the specified distance. Please contact Yutong authorized service personnel in time.

⚠ Warning

When the steering system is faulty, never continue driving. Otherwise, traffic accident could occur due to steering failure.

Precautions for overtaking



- Before overtaking, correctly determine whether overtaking conditions are met, whether there is any vehicle coming from the opposite direction, and whether there is any vehicle on the left lane.

⚠ Warning

If there is any vehicle coming from the opposite direction, never overtake. Otherwise collision

accidents could occur.

If there is any vehicle on the lane on which you intend to overtake, never overtake. Otherwise, collision accidents could occur.

2. When overtaking, turn on the turn signal lights first and sound horn to show your intention. When overtaking at night, switch lights repeatedly to show your intention. You can only overtake when the vehicle ahead makes way for you.

Warning

Do not overtake if the front vehicle does not make way for you. Otherwise, collision accidents could occur.

3. Enter the intended lane and make sure there is sufficient

transverse distance.

Warning

If sufficient transverse distance cannot be ensured, never overtake. Otherwise collision accidents could occur.

4. After overtaking the vehicle, never enter the original lane too early. Drive until there is enough safe distance, and then turn on turn signal lights and return to the original lane.

Warning

- Never return to the original lane just after overtaking the vehicle ahead. Otherwise, collision accident will be extremely likely to occur.
- Observe the speed of vehicle ahead. When the

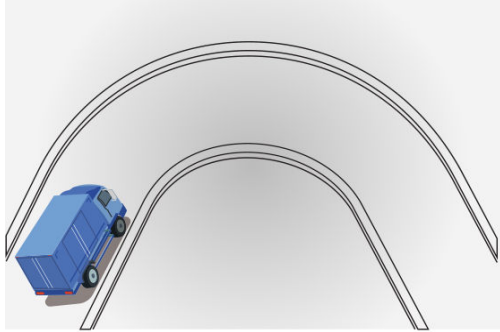
speed of the vehicle ahead is higher or if it is accelerating, never overtake. Otherwise, collision could occur.

- When the front or rear vehicle shows the overtaking intention, never overtake. Otherwise collision could occur.
- Observe conditions of the lane on which you intend to overtake. If there is a vehicle on such a lane, never overtake. Otherwise collision could occur.
- Operate lights and the horn in a reasonable manner. Otherwise, vehicles ahead and behind cannot judge your intention of overtaking, possibly causing collision.
- Follow traffic laws and regulations to overtake. Never overtake on contraflow lane. Otherwise, collision

could occur.

- Pay attention to road signs. Never overtake at road sections where overtaking is prohibited, such as uphill/downhill sections, turns, or tunnels. Otherwise, collision could occur.
- Never overtake on wet and slippery roads when it rains and snows. Otherwise, drift, rollover, collisions and other accidents could occur.
- Never overtake fire engines, ambulances or police cars on duty.

Drive through a curve road



While driving, pay attention to the road signs and conditions.

When there is a curve road ahead, slow down properly to drive through the curve road at a low speed. After driving through the curve road, make the steering wheel return to its center.

Warning

- Never drive through a curve road at a high speed, even though the road conditions are very good. High-

speed cornering may cause the vehicle to slide sideways due to large centrifugal force. High-speed cornering on wet and slippery road surface may cause the vehicle to roll over easily.

- Never overtake and change lanes on a curve road. Otherwise collision accidents and personal injury or death could be caused. Never stop the vehicle on a curve road unless there is an emergency. Otherwise collision accidents could be caused.

Normal driving

- Please maintain a steady vehicle speed while driving and avoid sudden acceleration; slow down and keep the vehicle speed steady before turning; ensure a safe distance from other vehicles when turning and obey traffic rules.

 Danger

- The handbrake is only used for parking or emergency braking. Never pull the handbrake in non-emergency situations while driving to avoid rear-end collisions caused by emergency braking of the vehicle!
- During the driving process, please strictly follow the driving regulations and drive safely, otherwise it may cause property damage and personal injury.

 Notice

- When the vehicle has limited power, the instrument will display a yellow turtle-shaped indicator  to indicate limited power. Please inspect and repair the vehicle in time.
- When the accelerator signal and brake signal are

both effective, the vehicle only responds to the brake signal, and there is no drive force output at this time.

- When driving on low adhesion road surfaces such as rainy, snowy, wet and slippery roads, emergency braking, sudden acceleration and steering may cause tire slipping, reduce vehicle maneuverability. Please drive with caution.
- When driving in environments with rain or snow, due to reduced visibility, the vehicle may experience situations such as foggy windows as well as wet and slippery road that are not conducive to driving safety. Please drive with caution.
- If the accelerator is accidentally depressed while the brake should be depressed, it can cause sudden acceleration, which may lead to safety accidents.

Please drive with caution.

- Even if the vehicle is only slightly moved, it is necessary to maintain the correct driving posture in order to correctly depress the brake and accelerator.

Slow down

- For non-emergency braking under normal driving conditions, just release the accelerator pedal and lightly depress the brake pedal.
- In case of emergency braking, depress the brake pedal deeply according to braking requirements to ensure the safety of pedestrians and vehicles.
- Make pre-judgment for braking in advance to allow sufficient reaction time; depress the brake according to safe driving requirements to ensure the safety of pedestrians and vehicles.

Warning

When driving on rainy, icy and other slippery roads, please turn off the regenerative brake function.

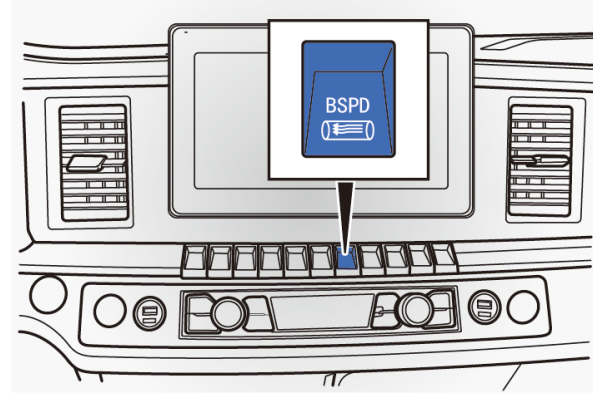
Otherwise, it may cause uneven braking, forward braking, slipping and loss of control, which can lead to safety accidents.

- When applying brake on low adhesion road surfaces such as rainy, snowy, wet and slippery roads, the brake distance becomes longer. Keep a safe distance and drive safely.
- When ABS is triggered, such as on bumpy or wet and slippery roads, the regenerative brake function weakens. Operate the brake pedal according to the deceleration demand to ensure driving safety.
- In emergency braking situations, the driver can operate the brake pedal and pull the handbrake to enhance braking

efficiency.

- Avoid coasting with N gear!
- The driver is always the only person responsible for safe driving of the vehicle! The driver must always drive with caution to ensure driving safety and avoid accidents.
- Depress the brake with right foot. In an emergency, depressing the brake with left foot may delay response, leading to property damage and personal injury.

Deicing function



Before off-work in winter, set to “ON” position, shift into N gear, pull the parking brake, and press the switch for 3s, then the air compressor will continue to pump air for 5min to purge the water vapor in the air pipeline. Do not power off the vehicle in the process.

Regenerative brake

- When a battery electric vehicle brakes, energy recovery braking and air braking operate together. Gently depressing brake pedal is conducive to increasing brake energy recovery ratio. Energy recovery brake is called as regenerative brake for short.

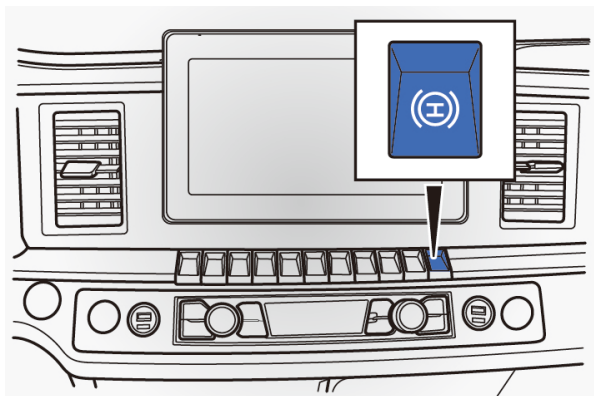
Warning

- When the ground is wet and slippery, sharp brake could cause vehicle to slip and deviate easily. Never depress the brake pedal sharply unless there is an emergency. Otherwise, vehicle accidents and personal injury or death could be caused.
- When the service brake fails while driving, parking brake can be used as emergency brake. When depressing accelerator pedal and driving normally, service brake and parking brake should be released

fully. Otherwise, temperature of the brake will rise, the braking performance will decline, and serious accidents such as wheel lock, drifting and fire may occur.

Notice

- Avoid coasting with “N” gear! Otherwise, power and the “regenerative brake” function will be lost, causing dangers.
- When the vehicle travels on a bumpy or wet and slippery road, the ABS may be triggered and regenerative brake may stop operating. Depress the brake pedal deeply according to the braking demand and pay attention to driving safety.



- When driving on wet and slippery on rainy or snowy days, it is necessary to press the “Rain and snow mode” switch to turn on the “Rain and snow mode” function (the “Rain and snow mode” function is off by default, and pressing the switch will turn on this function). The instrument displays “Electric braking is off and power consumption increases”. At this time, the vehicle has no regenerative brake. Please slow down. When there is a

braking demand, please depress the brake pedal deeply.

- When the temperature of traction battery is lower than 0°C, the temperature of traction battery is severely high (the combination instrument reports “Severely high battery temperature, please stop immediately”), the insulation resistance is too low (the combination instrument reports “Too low insulation resistance, please stop immediately”), circuit interlock occurs (the combination instrument reports “Circuit interlock fault, please inspect and repair”), the traction battery system has a serious fault (the combination instrument reports “To protect the battery, please stop immediately”) or there is an internal communication error of traction battery system (the combination instrument reports “Battery communication fault, please inspect and repair”), the regenerative braking will not be available. If any of the above situation occurs, when the driver needs to slow down or stop, depress the brake pedal deeply as

appropriate according to the braking demand.

- When traction battery is hot (The combination instrument reports “Battery high temperature, please slow down”) or cell of traction battery is over-voltage (The combination instrument reports “Cell overvoltage, please return to inspect and repair”), the regenerative brake function is not available or performance of the regenerative brake becomes weakened. If any of the above situation occurs, when the driver needs to slow down or stop, depress the brake pedal deeply as appropriate according to the braking demand.
- When insulation resistance of the traction battery system is low (The combination instrument reports “Low insulation, please return to inspect and repair”) or branch circuit is open (The combination instrument reports “Branch circuit open, please inspect and repair”), performance of the regenerative brake becomes weakened. If any of the above situation occurs, when

the driver needs to slow down or stop, depress the brake pedal deeply as appropriate according to the braking demand.

Warning

When the combination instrument shows that the traction battery is faulty, please stop the vehicle immediately and contact Yutong authorized service personnel. Never continue driving in this case to avoid more serious faults.

Vehicle turning

- Vehicle turning at intersections shall follow the command. Illegal turning is not allowed. The driver shall make a judgment on road conditions before turning. The driver shall observe whether there are vehicles and pedestrians on both sides of the vehicle and turn on the turn signal lights in the corresponding

direction in advance. After making sure the surroundings are safe, slow down and turn. If other traffic participants are not aware of your intention of turning, sound horn to remind them.

Warning

- Pay attention to road conditions while turning. Only travel at your lane. Never deviate from your lane unless there is an emergency. Otherwise, collision could be caused.
- Slow down when making a turn. Never take a sharp turn. Otherwise, collisions with other traffic participants may occur.
- After turning, make the steering wheel return to its center and turn off the turn signal lights in time. Otherwise, other traffic participants may make a misjudgment of the driving state of the vehicle,

causing collision accidents.

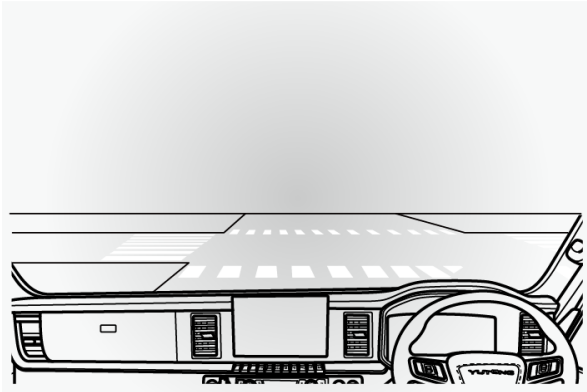
Reversing

- Before reversing, observe the rear to check if there is any pedestrian, vehicle or obstacle. The reversing assist device is only used for reference. Never solely rely on information from such device. The system could not respond timely to low obstacles or vehicles and pedestrians that appear suddenly, direct observation is required. Where necessary, someone outside of the vehicle can assist reversing.
- After confirming the surroundings are safe, depress the brake pedal, shift to R gear and depress the accelerator pedal slightly for reversing. Take caution to control the vehicle speed.

Warning

During reversing, the vehicle speed shall not exceed 5 km/h. Otherwise, the brake may not be applied in time in emergency, causing collision accidents and personal injury or death.

Drive through an intersection



- Obey indication of the signal lights or command of traffic police.

Control vehicle speed and yield to pedestrians.

- When there is no signal light at the intersection or the traffic light is not working, and there is no traffic police for command on the spot, pass the intersection after judging that conditions are safe in all directions. Control vehicle speed and yield to pedestrians.

⚠ Warning

If there are no signal lights or traffic police at the intersection, always check traffic condition at the intersection. Otherwise, collision accidents and personal injury or death could occur due to crowded vehicles.

Drive through a road section near a school



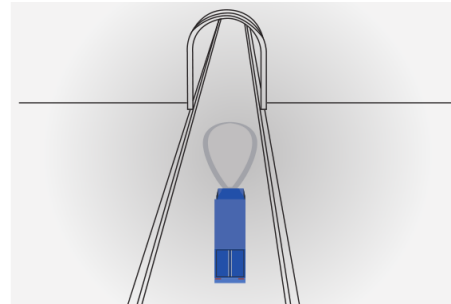
- There are time periods when passing is banned and speed limit signs for road sections on both sides of the school gate. Pay attention to such signs. Never drive on the road in such time periods when passing is banned. Just drive on the road at other time and do not exceed the prescribed speed limit, which is below 20km/h generally. Drive at a low speed. Keep your foot on the brake pedal, but do not depress it. In this case, the accelerator pedal will not be depressed by mistake in

emergency. Ensure the vehicle can be stopped at any time. Pay attention to children and get ready to stop at any time.

Danger

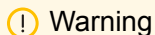
Safety awareness of children is weak. Usually, they are unable to judge the danger. Therefore, never overspeed to pass. Otherwise collision accidents occur easily, causing personal injury or death.

Drive through a tunnel



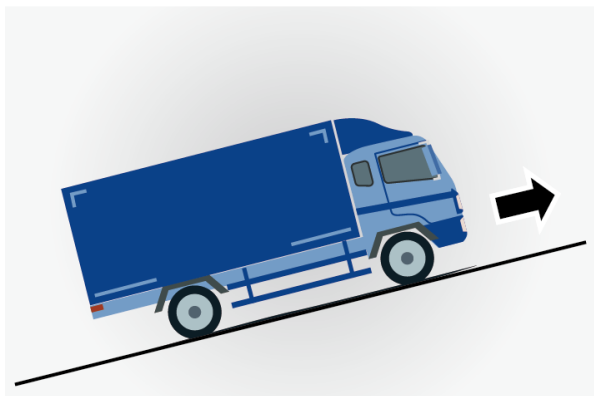
Operation during driving

- Slow down properly when passing a tunnel.
- The interior of tunnel is dim although there is lighting inside.
Therefore, enter a tunnel at a low speed. Accelerate the vehicle properly after your eyes adapt to the surroundings.
- When driving in a tunnel, sense of speed is strong due to wind speed and space sense. Calm down at this time, slow down properly, and visually check the front conditions.
- Pay attention to controlling vehicle speed and following distance in the tunnel.
- When leaving a tunnel, brightness and darkness alternate. The driver could be temporarily unable to see the road due to stimulation of sudden bright light. At this time, pay attention to road conditions and calm down. Slow down properly and keep a reasonable distance from the vehicle ahead.



- When entering and leaving a tunnel, or when traveling in a tunnel, never overtake. Otherwise, a collision accident or even rollover may occur, causing vehicle damages and endangering life.
- Never stop in a tunnel unless there is an emergency. Otherwise, collision accidents could occur.

Drive on a slope



- When driving on a slope, pay attention to controlling vehicle speed. Do not drive too fast and increase the following distance.

 Warning

When the vehicle is driving uphill or downhill, note to keep speed and following distance. Never follow other

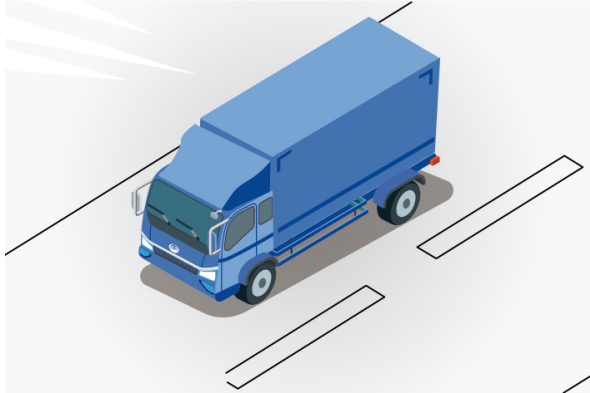
vehicles with too short distance. Otherwise, if the vehicle ahead brakes suddenly, rear collision could occur.

- When the slope is wet and slippery, the vehicle speed shall be further reduced and the following distance shall be greater.
- When entering or leaving a slope, check whether there is any vehicle coming from the opposite, left and right directions. Otherwise, collision accidents could occur due to poor vision.
- If SOC of the traction battery is above 92%, never drive down on a long slope. In this case, the effect of regenerative brake is not obvious. The service brake needs to be used for a long time. Then, the brake may easily get hot and cause a fire. The high temperature of the brake will also reduce the braking effect. In serious cases, the brake can fail, leading to collision

accidents.

Precautions for driving with limited vision

Drive when sun shine is harsh



- Keep windows and the front windshield clean.

⚠ Warning

Add washer fluid regularly and prepare clean cloth at

hand to remove moisture or dirt from the inside of the window regularly. Otherwise, dirt on front windshield will affect the driver's vision, causing collision accidents.

- Keep enough safe distance.

⚠ Warning

When driving, pay attention to controlling the vehicle speed and following distance. Avoid too short following distance. Otherwise, rear-end collision may occur when the vehicle ahead brakes suddenly.

- Drive at a low speed. Never drive at excessive speed.
- Dazzle light can cause blindness instantly, bringing lots of dangers. If the vehicle speed is high, brake cannot be applied

Precautions for driving with limited vision

in time in case of an emergency, which can cause collision accidents easily.

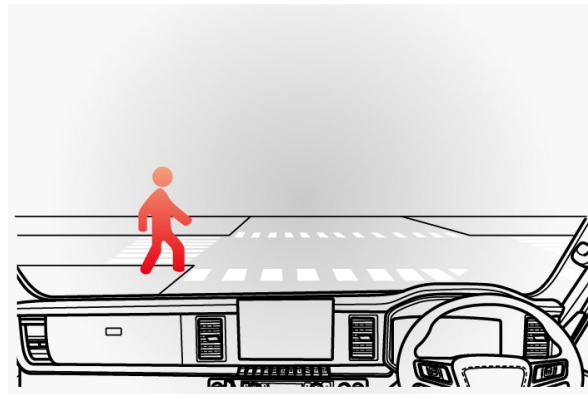
- Even back to the sun, be alert to the dazzle light.
- The driver is briefly blinded by the reflection of the oncoming vehicle's windshield.
- Driver of opposite vehicle could take dangerous driving action because of the influence of glare.

⚠ Warning

- When there is sun glare, never drive at a high speed. Otherwise, the driver may be momentarily blinded due to the dazzling light and lose judgment on the road conditions, causing accidents.
- Sunglasses are not very effective in preventing glare caused by low-intensity sunlight. Wearing sunglasses may make road sections not lit by sunlight look even

darker, affecting the driver's vision, which increases risk of collision.

Drive through an intersection obscured by objects



- When driving through an intersection with blind spots, if the vision is blocked by buildings, billboards or trees, sound the horn to give an alarm first. After confirming that the

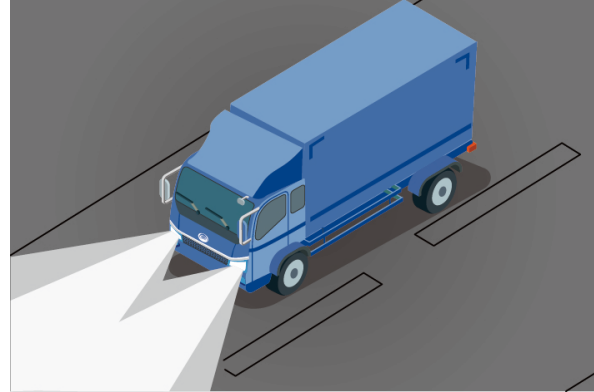
surroundings are safe, drive through the intersection slowly.

- There are generally no traffic lights, lanes and pedestrian crossings on a narrow road. Also, there are more intersections on such narrow roads. On a narrow road, vision of driver is narrow and there are many blind areas. In addition, the traffic conditions are complex. Slow down when driving on such roads. When approaching an intersection, drive at a speed which can ensure that the vehicle can be stopped at once. In addition, sound a horn appropriately for warning.

⚠ Warning

When driving through such areas with blind spots caused by physical obstacles, slow down and check whether there is any vehicle or pedestrian appearing suddenly. Otherwise, a collision accident could occur, causing personal injury or death.

Drive at night



- When driving at night, lighting conditions are limited. The view field and clarity of the driver are greatly affected.
- Use vehicle lights correctly.

⚠ Warning

- When lamps cannot be used, never drive at night.

Repair the lamps before driving. Otherwise, safety accidents could occur due to limited vision.

- When lamps cannot be used, other traffic participants may not identify location of the vehicle, causing collision accidents.
- When passing a vehicle, fully estimate the lateral distance and widen the meeting distance, otherwise collision accidents may occur.

- Control the vehicle speed and increase the following distance.

Warning

- When driving at night, control the speed and slow down. Never overspeed. Otherwise, collision accidents could be caused.

- When driving at night, increase the following distance appropriately. Otherwise, collision accidents and personal injury or death could occur when the vehicle ahead brakes suddenly.

- No fatigue driving.

Warning

When feeling tired or sleepy while driving, take a rest immediately. Fatigue driving is not allowed. Otherwise, the driver's ability to determine conditions of the vehicle and the road will be reduced, the response time will be increased, and collision accidents may be caused.

Drive on rainy, snowy or foggy days



- Driving in rain, snow or fog can easily cause traffic accidents because the driver's vision is limited. Therefore, it is very important to keep a good vision.
- Turn on lamps such as low beams, fog lamps, side marker lights and clearance lamps.

⚠ Warning

- When lamps cannot be used, never drive. Repair lamps before driving. Otherwise, safety accidents could occur due to limited vision.
- When lamps cannot be used, other traffic participants may not identify location of the vehicle, easily causing collision accidents and personal injury or death.

- On rainy, snowy and foggy days, roads are wet and slippery. At the same vehicle speed, the brake distance will be greatly increased compared with that on a dry and good road. Be sure to control the vehicle speed and make the vehicle slow down.

⚠ Warning

Never drive at a high speed on rainy, snowy or foggy

Precautions for driving with limited vision

days. Otherwise, vehicle sideslip, drifting or even rollover may occur, causing damages to the vehicle.

could occur.

- Observe road conditions around and drive carefully.
- When the road surface is wet and slippery, press the regenerative brake rocker switch to turn off the regenerative brake function to prevent the wheels from sideslip.
- On rainy, snowy or foggy days, pedestrians' vision is also affected negatively. When driving, always observe pedestrians and sound your horns now and then to remind pedestrians to pay attention to your vehicle, so as to avoid traffic accidents.

Warning

On rainy, snowy or foggy days, if the visibility is too low, never continue driving. Otherwise, traffic accidents

New vehicle running-in

Overview

- The correct breaking-in of a new vehicle is of great benefit to extending the service life of the vehicle and improving the reliability of the vehicle operation.
- The running-in period of a new vehicle is set at 5,000km.

Operation during running-in:

- Drive the vehicle on a good and flat road.
- Avoid sudden acceleration and sharp braking during driving.
- Load limit: the load shall not exceed 70% of the allowable total load of the vehicle within the initial 1,500 km. Afterwards, the load can be increased up to 90% of the allowable total load for the vehicle.

Operation after running-in

- After completion of running-in, be sure to implement running-in maintenance in accordance with the *Warranty Manual*.
Abandoning the required mandatory maintenance, you will lose the right of warranty!

Energy-efficient driving

This section describes methods and skills for energy-efficient driving.

Properly operate to make the vehicle start to move

- The vehicle shall start to move in a smooth and gentle manner. Slowly depress the accelerator pedal to make the vehicle start to move at a low speed. Avoid depressing hard on accelerator pedal.

Driving at a constant speed

- Repeated acceleration and deceleration during driving will increase the electric energy consumption significantly. Therefore, keep the position of the accelerator pedal unchanged to maintain a constant speed.

Control the maximum vehicle speed

- After exceeding the economic speed, the faster the speed is, the faster the electric energy consumption will be. Even in the ideal weather and road conditions, you must pay special attention to controlling the maximum speed.

Try to slow down by coasting

- When the vehicle is decelerating, under the premise of ensuring driving safety, try to slow down by coasting to facilitate the recovery of electric energy.
- For non-emergency braking under normal conditions, just release the accelerator pedal and depress the brake pedal gently, facilitating the motor to realize the retardation and braking function.
- In the case of emergency braking, the driver must quickly depress the brake pedal to ensure the safety of pedestrians and vehicles.

Tips for using the A/C

- Before turning on the A/C in summer, open the windows first and wait for the hot air inside the vehicle to dissipate. During driving, close windows tightly. Generally, set the temperature of the A/C to 26°C. Use the ventilation function when the temperature is not very high.
- Please use electric A/C reasonably in winter. It is recommended to set the A/C temperature not higher than 16°C, or use an independent water heater (if configured).

Avoid using the electric defroster for heating

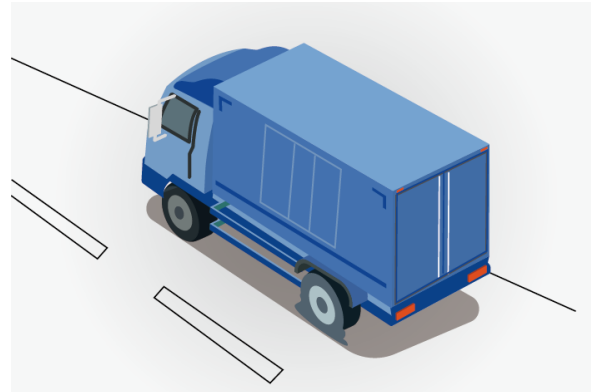
Notice

- The electric defroster is used for defrosting. It has a high electric power during operation and consumes more electricity. Therefore, for a battery electric vehicle equipped with a electric defroster, avoid

turning on electric defroster for heating in low-temperature environment in winter.

- The defrosting function shall be deactivated immediately after use to avoid continuous electricity consumption and driving range reduction.

Control the tire pressure



- Tire pressure 20% lower than normal value will increase electricity consumption by about 8%. When the tire pressure is high, electricity consumption will be lower, but the tire life will be shorter and the adhesive force will be reduced. Therefore, select correct tires and tire pressure.

Reduce the electricity waste during long waits

- When the vehicle is waiting for a long time, in order to avoid the continuous operation of the steering motor, DCDC and other electrical accessories, depress the brake pedal and wait for the vehicle to stop stably. Then, pull up the parking switch. Shift to neutral gear. Turn off the power supply to avoid energy consumption of the power steering system, DCDC, and other electrical accessories.

Factors affecting the electricity consumption and driving range

- The electric A/C, electric defroster and other electrical devices

have high power. The electricity consumption of battery electric vehicles in winter and summer will increase significantly compared with that in spring and autumn, and the driving range will be greatly reduced.

- The driving range of battery electric vehicles will vary greatly under different operating conditions. For example, the traction motor has high power consumption under high-speed working conditions. Frequent start and stop occur under congestion conditions, and electricity consumption of A/C is increased. When the electricity consumption is significantly increased, the driving range will reduce obviously.
- Drivers' driving habits have a great impact on the driving range of battery electric vehicles. Drive the vehicle in accordance with energy-efficient operation methods. Driving habits such as rapid acceleration, abrupt deceleration, and excessive vehicle speed will increase electricity consumption and significantly

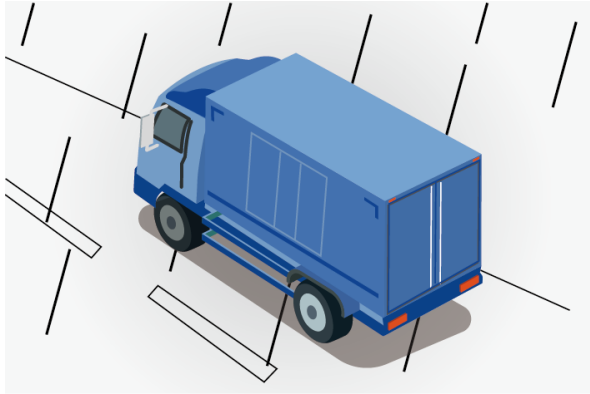
reduce the driving range.

- When the vehicle travels on a slope, electricity consumption of the traction motor increases significantly. More slopes and steeper operating routes have greater impact on the driving range.
- The running-in status of a new vehicle has a greater impact on the driving range of a battery electric vehicle. When the power system, drive system and tires of the new vehicle fail to undergo full running-in, the driving range of the new vehicle is obviously lower than that of the old vehicle. This is a normal phenomenon. With the increase of vehicle range and deep running-in of mechanical drive system and tires of new vehicle, the electricity consumption will be reduced and the driving range will be increased.
- Vehicles equipped with EBS have higher braking smoothness and comfort than vehicles equipped with ABS, but the braking

feedback energy will be reduced to a certain extent. The energy consumption of the vehicle increases and the driving range will be reduced.

- The liquid cooling battery configuration can control the battery in a suitable working temperature zone, to avoid the high temperature of the battery and effectively delay the battery attenuation. However, because the liquid cooling power supply system uses electric A/C for cooling, the energy consumption of the electric A/C will rise and the electricity consumption of the vehicle will increase and the driving range will be reduced.
- When the vehicle is used in winter, BMS activates the battery heating function when the battery temperature is low, to consume a certain amount of electricity. Thus, energy consumption of the vehicle will increase, the driving range will be reduced.

Driving in Rain



Keep a good view

- Turn on wipers.
- If the front windshield and driver window fogging affects the vision, turn on the A/C or defroster to defog.

⚠ Warning

During driving, ensure that the front windshield and the driver window are clear. Otherwise, collision accidents and personal injury could be caused due to bad vision.

- When the visibility is low, turn on the low beams, fog lamps and clearance lamps.

⚠ Warning

- When lamps cannot be used, never drive. Repair lamps before driving. Otherwise, safety accidents could occur due to limited vision.
- When lamps cannot be used, other traffic participants may not identify location of the vehicle, causing collision accidents and personal injury.

- Keep the rear-view mirrors clear and turn on the rear-view mirror heating function.

Warning

When rear-view mirror is not clear, other traffic participants in the rear may not be observed in time, which may easily cause collisions and personal injury.

- Press the regenerative brake switch downwards to turn off regenerative brake function (This function is enabled when driving normally), and vehicle enters the rain and snow mode.

Notice

After turning off the regenerative brake function, vehicle regenerative brake is not available. When braking, it is necessary to depress the brake pedal deeply. Slow

down and control the vehicle speed.

Observe road conditions around and drive carefully

- Reduce the vehicle speed and maintain a safe following distance.

Warning

On rainy days, the ground is wet and slippery. Driving at a high speed or with short following distance could cause a rear-end collision.

- Depending on road conditions, adjust the vehicle speed in time.
- Yield to pedestrians. If it is not convenient to avoid pedestrians, stop and wait.
- Pay attention to ponding, pass slowly, and do not splash water on pedestrians.

The road is wet and slippery. Avoid wheels skidding

- Hold the steering wheel with both hands in a balanced manner to drive straightly at a low speed.
- Never overtake, change lanes, turn sharply, or apply emergency braking at will as the road is wet and slippery.

⚠ Warning

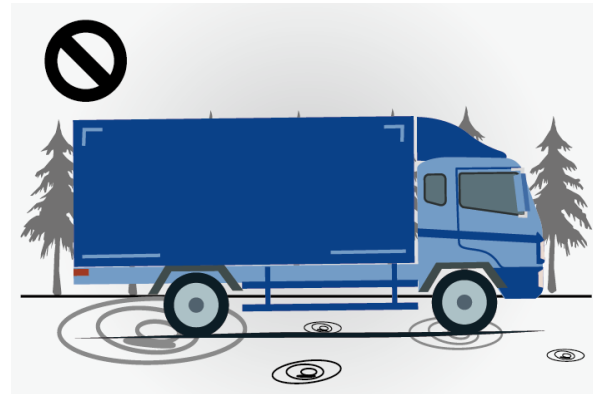
On rainy days, the ground is wet and slippery. Overtaking, changing lanes, sharp turning, or emergency braking can easily result in a loss of vehicle control, possibly causing safety accidents.

i Notice

Notice on temporary parking during rainstorm: Never park under a tree or a billboard, or near an unfinished building. Otherwise, the tree, billboard or others may

collapse and damage the vehicle.

Wading



- Wading is only suitable for emergency situations and cannot be used as part of regular driving.

Before wading:

Determine whether you can safely pass:

- The water depth, flow velocity, bottom condition and whether there are obstacles on the flooded surface.
- Turn off the defroster.
- Drive at a low speed.
- Wading depth < 300mm.

Running water

- If it is inevitable to drive across running water, determine the water depth with reference to substances around the vehicle. Safe passing range: Water depth does not exceed the lower edge of the first step of the vehicle. Considering drifting factors, the exit point from the water of the vehicle should be located downstream of the entry point. If water runs rapidly and the water level is rising (for example, in storm runoff, ditches, rivers, etc.), never drive across the water. Wait for the water to

recede or the flow rate to decrease.

Still water

- If it is inevitable to drive across still water such as a puddle, a pond or ponding road surface after a storm, determine still water depth with reference substances around the vehicle. Safe passing range: Water depth does not exceed the lower edge of the body skirt panel.
- Before entering a ponding area, turn off the control switch of regenerative brake and drive the vehicle at a constant speed below 10 km/h.

Notice

If the vehicle runs too fast, the vehicle speed changes greatly, or water depth exceeds the safe passing range, electrical components may be short-circuited, which

may cause a fire.

During wading:

- Before entering a ponding area, determine bottom conditions of the ponding area (whether there are hidden obstacles, opened drain covers, puddles, etc.) to ensure that the vehicle can pass safely.
- A wet brake may weaken the braking force, leading to braking failure or sideslip during braking and therefore causing an accident. Drive the vehicle at a low speed and keep a safe distance from the vehicle ahead. Hold the steering wheel steadily and avoid sharp turns.
- The vehicle shall pass through the ponding surface at a constant speed of ≤ 10 km/h for not exceeding 10 min during wading.

- If the wading time is more than 10 min, drive away from the ponding area as soon as possible. If the vehicle has no insulation warning, continue using the vehicle. If there is an insulation warning, please contact Yutong authorized service personnel in time.
- Disconnect the manual service disconnect by Yutong authorized service personnel to measure the insulation resistance of the vehicle's high-voltage system. If the insulation resistance is $\geq 2M\Omega$, the vehicle can run. If the insulation resistance is $< 2M\Omega$, please contact Yutong authorized service personnel in time. Never use the vehicle again before the safety fault is completely eliminated.



Warning

Wet brake will affect the braking effect. Brake to make brake dry only when road conditions are proper. Also, it

is not allowed to affect other traffic participants.
Otherwise, a collision accident may occur!

Notice

During wading, never stop the vehicle halfway. After the vehicle shuts down due to wading, do not restart the vehicle. Otherwise, more serious faults may be caused.

authorized service personnel in time.

After wading:

The vehicle is on a road surface where the depth of ponding < 300mm (take the lower edge of the step as reference).

- After the vehicle stops, there is no fault warning from the combination instrument or indicator.
- During driving, the vehicle shuts down or the combination instrument/indicator gives a warning.
- The driver evacuates the passengers and moves the vehicle to a ventilated, ponding-free road. Pull up parking switch and turn off ignition key and power handle switch in turn.
- Set up warning signs to prevent irrelevant persons from approaching the vehicle and contact Yutong authorized service personnel in time.
- Yutong authorized service personnel shall be assigned to

Emergency handling for faults caused by wading

- If a fault warning occurs, the driver shall drive the vehicle away from the ponding road to a safe place as soon as possible, pull up the parking switch, stop and power off the vehicle, evacuate passengers, and contact Yutong authorized service personnel in time.
- If the vehicle cannot run normally, please contact Yutong

inspect the following parts: electrical equipment in compartment, side wall lamps, chassis, front/rear axle, traction battery system and traction motor.

Warning

If water enters the wiring harness sheath (for example, sealing compartment damages), immediately cut off the power supply to the vehicle and turn off the power handle switch. Use the vehicle again after the water evaporates completely. Otherwise, personal electric shock may be caused.

Vehicle soaked

When the vehicle is immersed in water with a depth of more than 300mm (take the lower edge of the step as a reference), no matter the vehicle is out of service or in operation, it is considered

to be soaked.

Under the condition of ensuring personal safety, perform the following operations conditionally:

- The vehicle's immersion depth > 500mm or the combination instrument/indicator gives a warning.
- The driver turns off the ignition key and the power handle switch (if the power handle switch has water stains, never touch it). Have manual service disconnect of traction battery disconnected by Yutong authorized service personnel.
- Tow the vehicle to a ventilated and ponding-free road. Pull up the parking switch, and set up warning signs to prohibit unauthorized persons from approaching the vehicle;
- Please contact Yutong authorized service personnel in time and give suggestions based on the actual situation.
- The vehicle immersion depth is greater than 300mm and not

more than 500mm, and the combination instrument/indicator has no warning.

- The driver turns off the ignition key and the power handle switch (if the power handle switch has water stains, never touch it). Have manual service disconnect of traction battery disconnected by Yutong authorized service personnel.
- Tow the vehicle to a ventilated and ponding-free road. Pull up the parking switch. Make the vehicle stand still for more than 24 h. Set up warning signs to prohibit unauthorized persons from approaching the vehicle.
- Yutong authorized service personnel shall be arranged to inspect the following parts: electrical components in compartment, side wall lamps, chassis, front axle, drive shaft, rear axle, braking system, traction battery system, traction motor, motor controller, electric air compressor, electric defroster, charging socket, electric steering gear.

- For vehicle models with EBS configuration, after Yutong authorized service personnel inspects and repairs the vehicle. The driver shall discharge the water in the valve before driving. The operation steps are as follows: depress the brake pedal, hold it completely for 1s, release the pedal, repeat this action until the air pressure of the vehicle is used up, and then charge the air pressure of the vehicle. Repeat the above actions for 3 times.

 Danger

- The high-voltage system is installed at the rear of the vehicle. If water enters the high-voltage system, an electric field will exist in the water. The closer to the high-voltage system, the stronger the electric field. When the vehicle is connected for towing, the operator should keep away from rear of the vehicle to

avoid electric shock.

- When a vehicle is soaked, water could enter the traction battery, leading to safety accidents such as battery short-circuit, smoke, fire, or personal injury.
- For disassembly and replacement of the soaked traction battery system, please contact Yutong authorized service personnel in time. Never perform disassembly or replacement without permission to avoid personal injury.

Warning

- When the vehicle is soaked in ponding due to weather or special reasons, never power on the vehicle. Otherwise, safety risks or secondary damages to the vehicle may be caused.

- When measuring the insulation resistance, take safety protection measures and strictly follow the requirements specified in *Maintenance Manual* provided.
- For the vehicle running, when the wading depth >300mm (take the lower edge of the step as a reference), water may enter the EBS valve body during the braking process. If the internal moisture is not completely discharged, there is a risk of failure of the EBS valve body function below 0°C.

Driving in Snow



Operation before departure

- Turn on the deicing function. When the vehicle is stationary and parked, turn on the ignition key to “ON” position and set the gear panel to “N” gear. Press the deicing switch, the vehicle will activate the deicing function. The air compressor will work

for 5min. The condenser vent port will be opened intermittently 6 times to drain water. Also, the brake light comes on for 6 times and is kept on for about 5s each time.

- Deactivate the regenerative brake function (the regenerative brake function is enabled by default. Press the regenerative brake switch to deactivate this function). When the regenerative brake function is deactivated, reduce the speed of the vehicle and drive slowly. In case of a brake need, step down heavily on the brake pedal.

Keep a good view when driving in snow

- Turn on wipers to remove snow on the windshield in time.
- Turn on the low beams, fog lamps and clearance lamps. Avoid using emergency lamps (emergency flashers) in non-emergency situations.
- Turn on the A/C or defroster to defog the front windshield.

- If there is snow on the rear-view mirror, turn on the defrosting function of the rear-view mirror.

Precautions for driving on icy and snowy roads

- Keep driving at a constant speed, and the vehicle speed cannot be higher than 30km/h.
- Slowly accelerate and decelerate.
- When driving, keep a sufficient following distance between vehicle ahead.

Warning

- Never accelerate or decelerate sharply or make sharp turns; otherwise, the vehicle may slip or even roll over.
- Never drive at high speed. In the event of an unexpected situation, it may not be able to brake in

time and cause a collision.

- On wet and slippery roads on rainy or snowy days, make the vehicle slow down and keep a proper following distance. Otherwise, a rear-end collision may occur when the vehicle in front brakes suddenly.
- When there is snow water on the road, to avoid various brake valve body vents from being frozen and blocked, which may cause hidden troubles in braking function, the driver shall lightly depress the brake pedal once every 3 min to ensure the valve body vents are clear and unblocked.

Drive on a road sprinkled with road salt

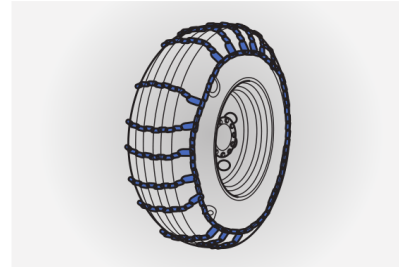
- When driving on a road sprinkled with road salt, a salt layer may form on the brake disc and brake shoe. This will

significantly increase the brake distance. Reduce the vehicle speed and increase the distance from the vehicle in front to avoid rear-end collisions.

- Brake at intervals to remove the residual road salt. When performing the above operations, make sure not to endanger the safety of other traffic participants.

i Notice

The road salt has serious corrosion to the vehicle. After off-work, remove the remaining road salt on the chassis in time to avoid corrosion and damages to the vehicle.



- Snow tires are recommended for icy and snowy roads. Tire chains can be used when snow tires are not available. Confirm whether the size of the tire chains is suitable for your vehicle and install them according to the instructions of the manufacturer of the tire chains.
- Install and remove tire chains in a safe place.
- Even though tire chains are installed, the physical characteristics cannot be overcome. You still need to control the speed of the vehicle. Never drive at a high speed.

Anti-slip of tires

Warning

Never make rapid acceleration, emergency braking, or sharp turns, to avoid sideslip.

- When driving on roads that are not icy or snowy, avoid hard roads. If there is no snow, remove the tire chains in time. Otherwise, the tires may be damaged.

Warning

When the ambient temperature is lower than 0°C, before departure, depress the brake pedal several times and listen to whether there is any venting sound. When there is no venting sound, don't depart. The vehicle can only depart after inspection and elimination of abnormal conditions. Prevent the brake valve body

from being blocked. Failure of vehicle braking may cause traffic accidents.

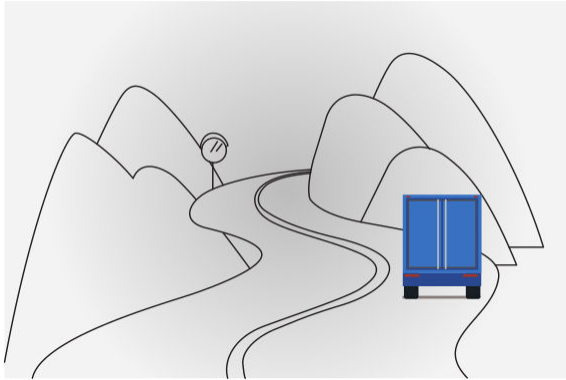
Notice

- When the vehicle is equipped with tire chains, the vehicle ABS may fail to function, so be cautious when braking.
- Tire chains shall be installed symmetrically right and left. Never install tire chains on only one side. Otherwise, the vehicle may deviate at braking, causing an accident.
- The temperature is low on snowy days. Remove the remaining snow, muddy water and other debris on the chassis in time after off-work. Otherwise, the vehicle may be damaged due to icing.

- After off-work, pull up wipers. Otherwise they may freeze on the windshield.
- On snowy days, never park the vehicle under a tree or billboard or near an unfinished building. Otherwise, the tree, billboard or others may collapse and damage the vehicle.

Driving on Special Roads

Driving on slopes or mountain roads



- Before driving, depress the brake pedal to make sure that the braking system operates normally.
- Pay attention to controlling the vehicle speed. Do not drive too fast and increase the following distance with the vehicle ahead.

⚠ Warning

- When going uphill and downhill, never overspeed or follow other vehicles with a short distance. Otherwise, if the vehicle ahead brakes suddenly, a rear-end collision could occur.
 - When there is ice on slope or when the slope is wet and slick, reduce the vehicle speed and increase following distance. Never accelerate, sharply decelerate, or make sharp turns. Otherwise, the vehicle may be out of control due to the wet and slippery road, causing a traffic accident.
-
- When entering or leaving a slope, check whether there is any vehicle coming from the opposite, left and right directions.
 - When the vehicle goes down a long slope, the regenerative

brake must be used for braking. When the regenerative brake cannot obtain sufficient braking force, the service brake can be used at the same time. Pay attention to controlling the vehicle speed to avoid excessive speed.

Warning

If the SOC of the traction battery is higher than 92%, never go down a long slope. In this case, the effect of regenerative brake is not obvious. The service brake needs to be used for a long time. Then, the brake may easily get hot. The high temperature of the brake will also reduce the braking effect. In serious cases, the brake can fail, leading to collision accidents and personal injury

Notice

Priority is given to the regenerative braking to extend the service life of the brake linings and tires.

- When driving down a long slope, never coast at the neutral gear.
- When driving uphill, if the vehicle stalls, depress brake pedal at once and pull up parking brake handle to stop the vehicle steadily. Then, restart the vehicle.

Driving on bumpy roads, speed bumps or steep slopes

- When driving over the road pitted with large holes (depth $\geq$ 100 mm) or with speed bumps, or uphill or downhill, reduce the speed ($\leq$ 10 km/h) to pass slowly while paying attention to avoiding potholes.
- If the vehicle is equipped with optional transition wheels, the

front or rear part of the vehicle may touch the ground when the vehicle goes up and down a steep slope. In this case, the transition wheels will touch the ground prior to the bumper, so as to protect the bumper.

Notice

When driving on a bumpy road, the ABS may be triggered and the regenerative brake may stop operating. Depress the brake pedal deeply according to the braking demand and pay attention to driving safety.

Driving in fog

- Turn on the fog lamps, clearance lamps and position lights. You are recommended to turn on the emergency lamps (emergency flashers) at the same time when the visibility is less than 200m.

Warning

Do not turn on the high beams. The high beams have a wide lighting range. Light scattering occurs through the fog, seriously affecting the driver's vision.

- Slow down and drive slowly.

Warning

When driving on foggy days, strictly control the vehicle speed and drive at a low speed. Otherwise, collision

accidents could be caused.

- Never overtake on a foggy day.

Warning

When driving on foggy days, never overtake as the visibility is poor. Otherwise, collision accidents could be caused.

- Sound the horn intermittently to indicate position of the vehicle.
- Operate wipers intermittently to remove water mist formed by condensation on the windshield glass to improve the driver's vision.

Warning

Failure to remove water mist and water droplets from the windshield glass in time will further reduce the driver's vision and may cause a traffic accident.

- In foggy days when the following distance between vehicles cannot be distinguished, turn on the fog lamps and drive the vehicle slowly to a safe area to stop. After that, turn on emergency lamps (emergency flashers). Personnel shall be evacuated to a safe area. Drive the vehicle on the road after the fog dissipates and the vision becomes better.

Warning

When the view is seriously affected, stop and wait in a safe area. Never risk driving on roads. Otherwise, traffic accidents may occur.

Driving in special environments

High temperature

- If the vehicle operates immediately after charging during the day, the temperature of the traction battery will rise, causing the dynamic property of the vehicle to decrease.
- If the temperature is above 45°C, the vehicle must not be stored in the open air. Otherwise, irreversible harm or damage may occur to the traction battery.

Low temperature

- When the temperature is 0°C or below, the operating vehicle shall be charged as soon as possible after off-work. Otherwise, the battery temperature will drop, extending charging time.
- Reasonably arrange the operating time and put the vehicle into operation immediately after charging to avoid lowering the battery temperature, self-heating of the battery, wasting electric

energy, and shortening the driving mileage.

Warning

When the ambient temperature is lower than 0°C, before departure, depress the brake pedal several times and listen to whether there is any venting sound. When there is no venting sound, don't depart. The vehicle can only depart after inspection and elimination of abnormal conditions. Prevent the brake valve body from being blocked. Failure of vehicle braking may cause traffic accidents.

Electric parking brake (EPB)



⚠ Warning

When parking or leaving the vehicle, make sure the EPB is in the pulled-up status.

Activate EPB

Pull up the EPB switch, EPB will apply appropriate parking force,

the indicator  on the instrument will flash first, and then it will remain on, indicating that EPB has been pulled up.

⚠ Warning

When  flashes, it indicates that EPB is working. If the vehicle is on a slope, do not release the brake pedal at this time to avoid the risk of the vehicle slipping back. Release the brake pedal when  remains on.

Release EPB

When the vehicle is in the “ON” gear or started status, and the gear is not in the “P” gear (parking gear), continue to depress the brake pedal and press the EPB switch until the indicator on the instrument goes off, indicating that the electronic parking has been released.

 Notice

- The “P” gear is the parking gear of vehicle, indicating that the vehicle is in a stable parking status at this time, and EPB is the main parking device of the vehicle. To ensure the safety of vehicle parking, the operation of using the EPB switch to release the parking gear can only be achieved under the premise of non-“P” gear (parking gear).
- When the parking brake is activated, do not release the brake pedal in advance, especially if the vehicle is parked on a slope, which may cause a slight risk of slipping.

Failure release function

When manually releasing the EPB is inactive, press and hold the EPB switch for more than 2s. If the electronic handbrake can

release, please contact Yutong authorized service personnel in time to check the brake pedal switch signal and related parts and circuits. If it still cannot release, please contact Yutong authorized service personnel in time.

Emergency brake function

If the brake is blocked or fail while the vehicle is driving, pull up the EPB switch.

 Warning

- Avoid using the EPB switch for forced braking as much as possible. The emergency braking function should only be activated in emergency situations such as when the foot brake fails or the brake pedal is blocked.

EPB system indicator

Electric parking brake (EPB)

- When the vehicle is powered on, if the EPB is in the pulled-up status, the indicator  on the instrument will remain on.
- When the vehicle is powered off, if the EPB is in the pulled-up status, the indicator  on the instrument will come on for about a few seconds and then go off.
- When the vehicle is powered on, the EPB system performs a self-inspection and the indicator  on the instrument comes on for about a few seconds and then goes off. If it does not go off, it indicates that the EPB system may have a fault. Please contact Yutong authorized service personnel in time.
- After activating the emergency brake function, if you smell a burning smell or hear abnormal noise, please contact Yutong authorized service personnel in time.

EPB fault indicator

- This indicator  comes on when the EPB system is faulty.

EPB working sound

- When the EPB is pulled up or released, the driver will hear the sound of the EPB motor running.

Warning

- To prevent slipping back on a slope, when leaving the vehicle, do not use the gearshift mechanism instead of EPB to park. Be sure to use EPB to park and the gear must be in “P”.
- When the vehicle is driving, passengers are prohibited from operating the EPB switch to avoid serious accidents.
- When the EPB is being pulled up or released, please depress the brake pedal as much as possible to prevent the vehicle from slipping and causing gear jamming, etc. when the EPB cannot provide sufficient

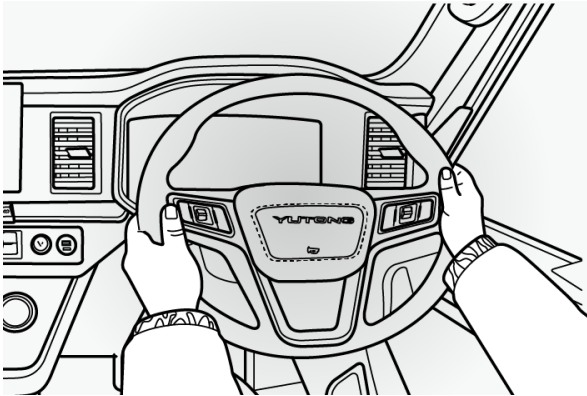
parking force.

Temporary Parking

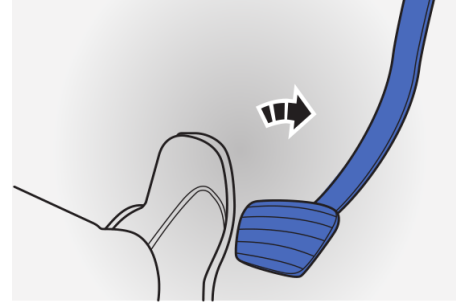
Temporary parking is the demand for stop while driving the vehicle.

Stop when driving

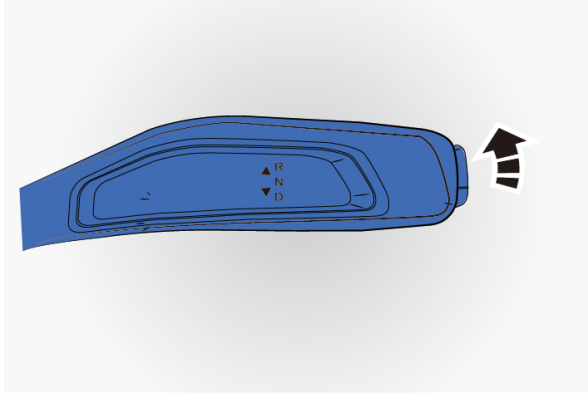
1. Depress the brake pedal evenly to stop the vehicle steadily.



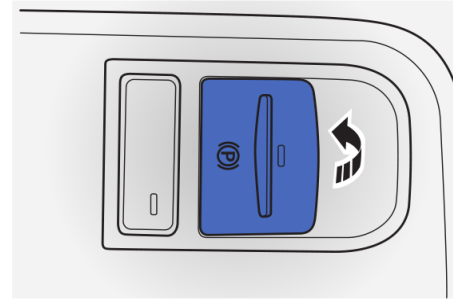
2. Make the steering wheel return to its center.



3. Keep the parking status.



4. Shift to neutral gear.



5. Pull up the parking switch and then release the brake pedal. At this time, the parking brake indicator (P) comes on.

i Notice

Before passing the test line, undergoing transporting, towing and other special operating conditions, the brake shall be released. Otherwise drag brake phenomenon will occur, resulting in vehicle damage or even fire.

Pull over

- When it is necessary to pull over, the driver should carefully check traffic conditions behind. Turn on the corresponding turn signal lights, control opening of the brake pedal to slow down and stop steadily if safe to do so. Shift to neutral and pull up the parking switch. Open the door only after the vehicle stops completely. When opening a door, pay attention to road conditions at the rear of the vehicle, to avoid interfering with other traffic participants.

Driver off-seat stopping

- Shift to neutral gear, pull up the parking switch, release the brake pedal and leave the seat.



Warning

- It is not allowed that you do not slow down when

approaching the parking position, and suddenly depress brake pedal for braking when arriving at the parking position. Otherwise, vehicle behind may not be able to respond in time, resulting in a rear-end collision.

- When stopping temporarily at a traffic light, never open the doors, otherwise it may cause a collision with other traffic participants and cause damage to the vehicle.
- After parking the vehicle, be sure to pull up the parking switch to ensure that the parking switch is fully locked before releasing the brake pedal, so as to avoid vehicle slipping due to the parking brake handle not being pulled in place!
- Never leave the seat if the gear is not at the neutral

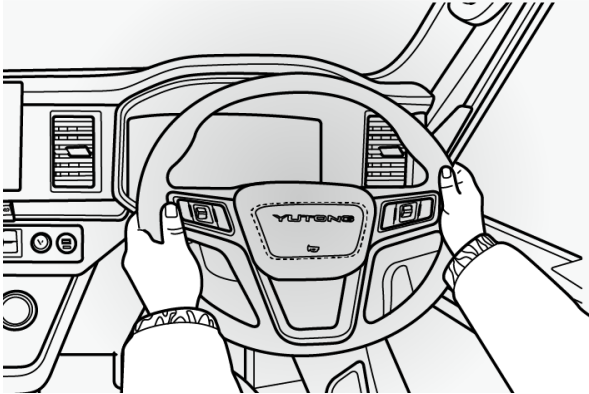
position or the parking brake is invalid. Otherwise the vehicle may slip.

- To park the vehicle on a slope, be sure to use the wheel stopper.
- Make sure the surroundings are safe before the vehicle starts to move from a temporary stop. Otherwise, collision accidents may occur.
- Avoid stopping close to an intersection. Otherwise, a collision accident could occur.

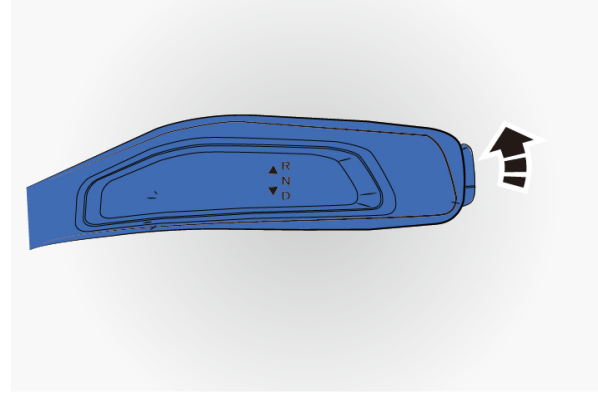
Off-work

Parking

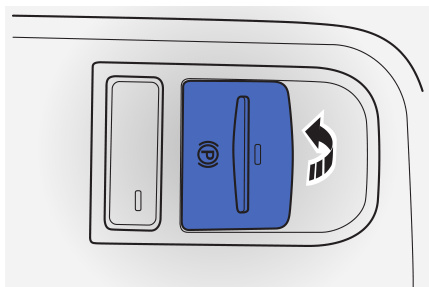
1. Depress the brake pedal evenly to stop the vehicle steadily.



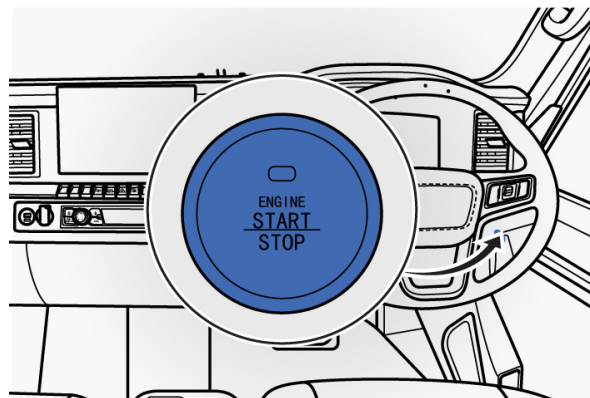
2. Make the steering wheel return to its center.



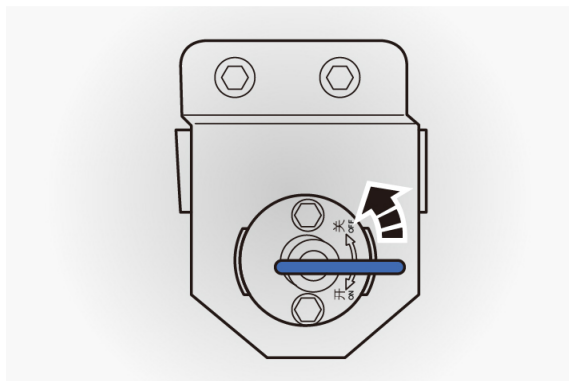
3. Shift to neutral gear.



4. Pull up the parking switch to ensure it is fully locked.
5. Check whether the instrument displays fault information and check the traction battery capacity.
6. Turn off the electrical appliances and A/C of the vehicle.



7. Press the ENGINE START STOP switch to shut down the vehicle.



8. Turn the power handle switch counterclockwise to “OFF”.
9. Lock doors and windows.

 Warning

- Before entering the parking position, decelerate the vehicle in advance and drive slowly. Too fast vehicle speed may cause traffic accidents and personal

injury or death.

- No one is allowed to stay inside after the vehicle stops, especially children. Otherwise, they may get off the vehicle from windows and get injured. They may operate the vehicle components, for example, releasing the parking brake handle and the vehicle could coast.
- If the steering wheel does not return to its center, the steering gear loses power when the vehicle is powered off. Then the steering wheel will instantly return to its center, and the driver's arm may get injured.
- Never leave glasses, transparent beverage cans, etc. on the dashboard. These objects may act like lens under direct sunlight, possibly causing a fire.

- Never leave lighters, aerosol cans, alcohol and other flammables and explosives inside the vehicle, to avoid safety accidents.
- Never install suction cups on windshield glass or windows. Never place containers filled with air freshener and the like on the dashboard. Suction cups or containers will act like lenses and could cause a fire.
- After parking the vehicle, be sure to confirm that the parking switch is in the fully locked status so as to avoid vehicle slipping.
- Never leave the seat if the gear is not at the "N" position or the parking switch is invalid! Otherwise, the vehicle may slip and cause safety accidents.
- Never get off when the door is moving to avoid being

pinched and injured.

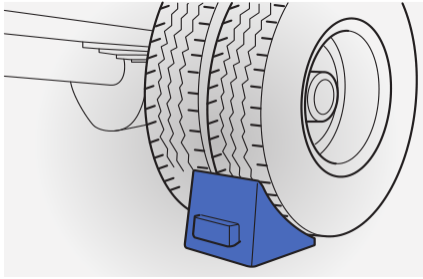
- Never close the door while standing in the track of the door movement to avoid getting pinched and causing injury by the door.

Notice

- When the battery SOC of the vehicle cannot meet the operating requirements, it is necessary to charge the battery in time to avoid affecting operations.
- Before leaving the vehicle, be sure to lock doors and windows, and carry the key, to avoid vehicle damage or property loss.
- If the vehicle is no longer used that day, be sure to turn off the electrical appliances and A/C for the vehicle. Disconnect the power handle switch to avoid

battery undervoltage and failure of vehicle start.

Park on a slope



- To park for a long time, stopping the vehicle on a flat road surface is preferable. Parking on a slope for a long time is not recommended. If parking on a slope is inevitable, use parking wedges for parking. If parking wedges are not available, move the tires to make them lean against the road shoulder.

⚠ Warning

Relying solely on the parking brake of the vehicle for parking on the slope is not advisable. Appropriate external force must be used to assist the braking to avoid the vehicle from slipping back.

Park in special weather

- Do not park on a hill on rainy or snowy days when possible, as roads are wet and slippery. If it is inevitable, be sure to fix a stopper on the ground to prevent it from sliding and prevent the vehicle from slipping back.

i Notice

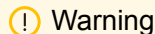
- Keep away from hazard sources when parking. Do not park at a low-lying place. Otherwise, the vehicle may be soaked and damaged due to rain.

- On rainy, snowy or windy days, never park the vehicle under a tree or billboard or near an unfinished building. Otherwise, the tree, billboard or others may collapse and damage the vehicle.

- Before leaving the vehicle, engage fully the parking brake and lock the brake handle. For parking on a slope, parking wedges shall be used.
- If the vehicle is parked for more than 4h, please turn off the on-board electrical appliances when leaving the vehicle, and be sure to turn the power handle switch to “OFF” in time.

Off-work check

- Perform off-work maintenance and check every day.
- Check whether the tire tread is scored, cracked or abnormally worn.
- Remove metal pieces, stones or other debris (if any) from the tread immediately.
- Observe whether stones or other debris are trapped between the twin tires of the rear wheel. Remove immediately, if any.



Warning

Battery 24h monitoring system

Real-time monitoring

- The system can monitor battery parameters such as voltage, current, temperature, as well as the battery's state of charge (SOC) and status of health (SOH) in real time. These data can help users understand the working status and performance of the battery.

Abnormal warning

- If the battery parameters are abnormal, such as over-charging or over-discharging, the system will immediately issue an alarm to remind the user to take action to prevent battery damage or safety problems.

Historical data recording

- The system can record historical battery data, including

voltage, current, temperature, state of charge and health status, etc. This data can help users analyze the performance and service life of the battery.

Report generation

- The system can generate various reports (such as daily reports, weekly reports, monthly reports, etc.), as well as various statistical data (such as average value, maximum value, minimum value, etc.). These reports and data can help users better understand battery performance and use condition.

Remote monitoring

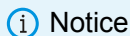
- The system can perform remote monitoring via the Internet or wireless network, and users can view the battery status and data at any time anywhere.

Intelligent management

- The system can analyze and predict battery performance and use condition, providing users with more intelligent management and maintenance recommendations.

Emergency assist for pedal misapplication (EAPM)

- When starting, if the driver depresses accelerator pedal too fast and too deeply, the emergency assist for pedal misapplication (EAPM) function of the starting accelerator will be activated, and the vehicle will drive at a speed limit of 5km/h.
- The driver deeply depresses the accelerator and releases the handbrake to start, and the vehicle will drive at a speed limit of 5 km/h; the instrument prompts “Starting accelerator too fast, please pay attention to safety”. At the same time, the instrument emits a “didi” alarm sound. It is necessary to release the accelerator completely and gently depress it again before the vehicle can resume normal starting.



Notice

When starting or driving at a low speed, never depress the accelerator too fast or too deeply, otherwise the vehicle may drive at the speed limit. Please slowly depress the accelerator to accelerate.

After activating the emergency assist for pedal misapplication (EAPM), even if the driver slightly reduces the accelerator opening, the vehicle still has a speed limit of 5 km/h. It is necessary to fully release the accelerator and slowly depress the accelerator again before the vehicle power can return to normal. The driver must develop good driving habits.

When the vehicle speed is greater than 8 km/h, if the driver quickly and deeply depresses the accelerator, this function does not work. Please pay attention to

safe driving.

Anti-lock Braking System (ABS)

Anti-lock braking system (ABS) automatically controls the brake to generate braking force during braking to prevent the wheels from being locked. The ABS system uses electronic control technology to cyclically adjust the brake pressure of the brake wheel cylinder during braking, so that the wheels are always in a critical locking clearance rolling status during the braking process, avoiding complete locking and dragging slip. This can make full use of the friction between the tires and the ground, improve the vehicle braking stability and directional control, and reduce tire wear and sideslip.

Operation description

Each time the vehicle is powered on, ABS system will perform a self-inspection. The indicator  on the instrument will come on

first and if the ABS system is normal, it will go off. If the ABS system has a fault,  will be displayed on the instrument.

Warning

- The function of ABS system is limited by the road adhesive force. When driving on a wet or slippery road surface, once a tendency of wheel locking is detected, reduce the vehicle speed immediately to adapt to road conditions and traffic situation. Never take risk by virtue of the limited safety functions provided by ABS.
- Do not hold that ABS system can reduce the brake distance in any case, such as driving on gravel roads or slippery roads due to snow (usually slow down and drive the vehicle carefully), the brake distance may

be longer.

 Notice

If the ABS system fails, the braking condition will change. However, braking devices other than ABS are not affected and other braking devices still operate. ABS system shall be repaired immediately after operation.

Anti-Slip Regulation System (ASR)

The anti-slip regulation system (ASR) is used to prevent the driving wheels from slipping when the vehicle is accelerating or starting. It uses appropriate control algorithms to keep the slip rate of the vehicle's driving wheels within the optimal range, thereby maximizing the use of the drive torque of the traction motor and ensuring that the vehicle can start and accelerate quickly and stably even on harsh roads or complex driving conditions.

Operation description

- When the ASR operates, the combination instrument shows a yellow icon  flashing. When the system monitors that the driving wheel is slipping, it will control the power output torque and regulate the one-side braking force, to reduce the influence

caused by driving wheel slipping and maintain the vehicle stability in the driving direction.

Warning

- The function of ASR is limited by the road adhesive force. When driving on a wet or slippery road surface, once a tendency of wheel slipping is detected, reduce the vehicle speed immediately to adapt to road conditions and traffic situation. Never take risk by virtue of the limited safety functions provided by ASR.
- When the ASR indicator remains on, it indicates that ASR system is faulty. The vehicle running conditions may change. In this case, drive with caution. Please contact Yutong authorized service personnel in time.

 Notice

- If the ASR system fails, the driving condition of the vehicle will change, but it will not affect other devices except the ASR. Drive with appropriate caution.
Repair immediately after completion of operations.
- Do not hold that ASR can prevent driving wheels from slipping when the vehicle starts to move or speeds up under any conditions. In some cases, such as when driving on gravel or slippery roads, ASR will not be able to completely prevent slipping.

Electronic braking system (EBS)

The electronic braking system (EBS) adds a brake management function to the original anti-lock braking system (ABS) function, and uses electronic control to replace traditional mechanical transmission to control the braking system. EBS completely adopts electronic control air brake, which controls the braking force with electronic signals rather than traditional pilot air to control the braking force.

Notice

EBS and ABS systems will not be configured at the same time.

Operation description

- Each time the vehicle is powered on, EBS will perform a self-

inspection. The indicator **EBS** on the instrument will come on first and then go off 1-3s later.

- When EBS has a minor fault, the instrument will display a yellow indicator **EBS**; when EBS has a serious fault, the instrument will display a red indicator **EBS**.

Warning

- The EBS is only an assistant safety system. The major decision maker is still the driver.
- Never adjust the EBS system without authorization after leaving the factory. Otherwise, the system may not operate properly, affecting safe driving.
- Do not hold that the EBS can reduce the brake distance under any circumstances. This function is affected by road adhesive force. Therefore, when

driving on a gravel road, icy road and other wet and slippery road surfaces, slow down and ensure a safe following distance if a wheel is found to have a tendency toward locking.

- When EBS indicator **EBS** comes on, it indicates EBS system has a minor fault. The braking status of the vehicle will change, but conventional basic braking devices except EBS will not be affected. The conventional braking device still works. Drive with caution and contact Yutong authorized service personnel in time.
- The EBS indicator **EBS** comes on, indicating that the EBS system has a serious fault. Stop the vehicle in a safe place immediately, evacuate passengers to a safe area, and contact Yutong authorized service

personnel in time.

Notice

The EBS is a sophisticated system. Never inspect or repair it without authorization, and contact Yutong authorized service personnel in time.

Electronic driving stability control system (ESC)

The electronic stability program system (ESC) is an active safety system. It can improve driving safety and handling. It mainly includes: ABS (Anti-lock Braking System), ASR (Anti-Slip Regulation), VDC (Vehicle Dynamic Control), ROM/RMI (Rollover Mitigation/Roll Movement Intervention), and other functions.

Warning

- The function of ESC is limited by the road adhesive force. When driving on a wet or slippery road surface, once a tendency of wheel locking is detected, immediately reduce the vehicle speed to adapt to the road and traffic conditions. Never take risks with limited safety functions provided by ESC.

- When the ESC has a fault, the ESC warning indicator remains on . However, ABS and other braking devices are not affected. Other braking devices still work. Please contact Yutong authorized service personnel in time.
- When ESP is working, ESP system warning indicator  flashes while the braking system of the vehicle also controls the output of engine torque to avoid vehicle rollover.
- Do not hold that ESC can shorten the brake distance and prevent vehicle from rolling over under any circumstances. In cases such as traveling on a slippery road, the brake distance may become longer. When a turn is made at a high speed, there is

still a risk of rollover. Thus, you need to slow down and drive slowly.

- The ESC system can be turned off by switch. After the ESC system is turned off,  comes on. The ESC system should be turned on during normal driving.

 Notice

Remember that ESC is an auxiliary system. The driver is still the main decision maker. When driving, never solely rely on ESC.

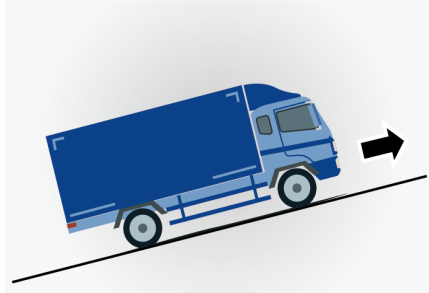
Combination braking system (CBS)

It is based on the ABS system and optimizes the coordinated control system of electric, pneumatic/hydraulic brakes after ABS activation, aiming to improve the ride comfort and safety of vehicle braking on low-adhesion roads.

- The main functions of CBS:
 1. Smooth deceleration during braking, improving braking safety and ride comfort.
 2. On low-adhesion roads, the average braking deceleration of CBS is increased compared to that of the ABS system, and the brake distance is shorter.

Hill start assist system

Hill start assist function



1. To park the vehicle on a road with a large slope (greater than 4.5%), with the Gear D engaged, depress the brake pedal to stop the vehicle steadily. After the brake pedal is released, if the instrument displays the , the hill start assist function is activated. After keeping the vehicle brake engaged for 3s, the driver can slowly depress the accelerator pedal to drive.

⚠ Warning

If the driver depresses and then releases the brake pedal sharply and violently, the hill-start assist function may be activated inadvertently.

When the hill-start assist function is activated, the brake can be maintained for up to 3s. To stop the vehicle, please depress the brake pedal and pull up the parking switch; otherwise, the vehicle may slip and cause a safety accident.

Depending on ground flatness and actual vehicle status, there may be a deviation between slope gradient at which the function is supposed to work and the gradient at which the function actually works. If hill start assist function does not operate,

control switching time between brake pedal and accelerator pedal when starting on a hill. If the vehicle starts to slip back, depress the brake pedal or pull up the parking switch in time. Otherwise, safety accidents may occur.

When the vehicle goes uphill on a slope with gradient greater than 5%, if the driver quickly and deeply depresses the accelerator pedal to start, the speed limit of the emergency assist for pedal misapplication (EAPM) function will not be activated.

Notice

If “HaltBrake” function is activated earlier than hill start function, hill start function will not work.

Depending on the length of the vehicle and the installation position of the vehicle control unit, the 4.5% gradient means the gradient measured when the vehicle is completely placed on the slope.

2. When the vehicle moves forward onto a slope (greater than 4.5%) and comes to a stop, the hill start assist function is automatically activated after the parking brake lever and brake pedal are released, and the instrument displays .
3. After the hill start assist function is activated, depressing the accelerator pedal can directly control the vehicle to start on a slope without pulling the handbrake for half-engaged starting.

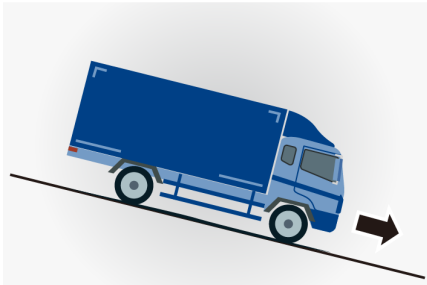
Warning

- The activation time of the hill start assist function is

up to 3s, and then the vehicle will still slip, so please pay attention to safety and drive carefully!

- The hill start assist function uses a motor to achieve a short-term hill holding function, which is fundamentally different from AutoHold. The handbrake still needs to be pulled up when parking on a slope.

Down-hill assist control function



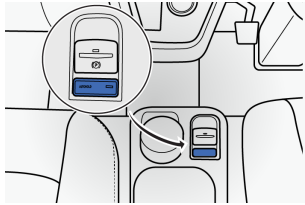
- When the vehicle is coasting on a downhill section with a vehicle speed greater than 30 km/h and the driver does not depress the accelerator and brake pedals, if an increase in vehicle speed is detected, the down-hill assist control function is activated. The vehicle automatically maintains the downhill vehicle speed when entering a coasting state with the electric braking and the instrument displays . When this function fails, the instrument displays .

⚠ Warning

- This function only assists with down-hill assist control deceleration and cannot replace the requirements on safe driving operations of the driver. In emergency situations, the driver should intervene to ensure the safety of vehicle braking.

- When the SOC is above 98%, this function weakens; when ABS is triggered on wet and slippery roads, this function will fail. If it is necessary to brake when going downhill, please deeply depress the brake pedal according to the braking requirements.

Automatic Parking (AHB)



AHB (AUTOHOLTBREAK) is an automatic parking function designed for situations where the vehicle needs to remain stationary for an extended period. For example, it can be used during stop-and-go traffic on a slope or while waiting at a traffic light. When the brake pedal is fully depressed to bring the vehicle to a stop (vehicle speed transitions from moving to stationary) and the vehicle meets the conditions for automatic parking standby, the AHB function activates and enters the automatic parking state.

Danger

- Drivers should avoid accidental deactivation of the AHB function due to misoperation, as this may result in property damage or personal injury.
- Exercise caution when using the AHB function on steep slopes, as this function may not fully prevent the vehicle from rolling, which could lead to downhill movement.

Notice

- When using the accelerator to release the AHB function, the driver shall ensure that the brake is completely released before gradually depressing the accelerator to achieve a smooth and comfortable

start.

- The AHB function can only be used for temporary parking. If parking for a long time, the mechanical handbrake shall be used.
- When the AHB function is activated on a slope, to minimize the vehicle's rollback distance, depress the accelerator pedal to release the AHB function and ensure a smooth start.

The automatic parking state will exit and return to the standby state when the accelerator pedal is depressed. Additionally, if the conditions for automatic parking standby are no longer met, the vehicle will exit the automatic parking state.

Prerequisites for the automatic parking function to enter standby mode (all conditions must be met)

- The automatic parking function is enable by default.
- The driver's seat belt is fastened and all doors are closed.
- The vehicle traction motor is started.
- The EBS system is fault-free.

Notice

The automatic parking function is enabled by default and enters standby mode.

Conditions for the automatic parking function to operate (all conditions must be met)

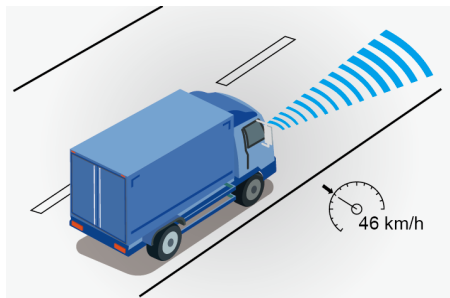
- The AHB function is in standby mode.
- The vehicle is in drive gear, and braking is applied using the brake pedal until the vehicle comes to a complete stop.
- When the automatic parking function is activated, the vehicle brake lights come on, and the AVH indicator on the instrument

changes to .

i Notice

All conditions required for activating the automatic parking function must be met simultaneously for the AHB to activate.

Cruising function



The vehicle moves at a constant speed set by the driver.

Enter the cruising

- When the vehicle speed reaches over 30km/h, turn on the cruise control enable switch , then the vehicle will enter the cruise control ready mode, and the digital instrument displays . Then, press the cruise control + or - key, then the vehicle

enters the cruise control mode at current speed, the digital instrument displays  and the vehicle enters the cruise control mode.

Adjust the cruising speed

- Press cruise - *RES/+* or cruise + *SET/-*, and the set cruise speed will decrease or increase by 2km/h.
- If you press and hold the cruise control + key in the cruise control state, the vehicle will enter the accelerated cruise control mode and accelerate at a faster rate. When you release the key, the vehicle will cruise at this speed.

Notice

After setting the cruising speed, the vehicle will cruise at the set speed and store the cruising speed to the

memory speed.

Exit the cruising

- Exit the cruise control actively
- Press the **OFF** switch to turn off the cruise control function, and the vehicle clears the memorized cruising speed.
- Exit the cruise passively
- During the cruise, the driver depresses the brake pedal and the cruise mode automatically exits.
- When the vehicle speed is too low, the cruise mode automatically exits.

Notice

When exiting the cruise mode passively, the vehicle will memorize the cruising speed.

Cruise recovery

- When exiting the cruise mode actively, turn on the cruise enable switch again and press the cruise control + key  to re-enter the cruise mode.
- When exiting the cruise mode passively, the vehicle enters the cruise control ready mode. When cruise conditions are met again, if you press the cruise control - key, the vehicle will cruise at the speed when you exit the cruise mode. If you press the cruise control + key, the vehicle will cruise at the current speed.

Notice

Cruise speed of the vehicle will not be lower than 30km/h or higher than the maximum speed.

- Please pay attention to road and traffic conditions when setting

cruising.

- Depress the accelerator pedal in the cruising mode, the vehicle will not exit the cruising. If the driver needs to overtake by a short-term acceleration, the cruising control adjusts the vehicle to run at the last memory speed after overtaking.

Warning

The cruising function should not be used when driving at a steady speed in unsafe traffic conditions.

- When the vehicle enters the cruising mode, if the current vehicle speed is higher than the memory speed, the vehicle will decelerate; if the current vehicle speed is lower than the memory speed, the vehicle will accelerate. If the stored memory speed is not known, the vehicle may decelerate or accelerate unexpectedly, and there is a risk of accident at this

time. If you do not know the stored memory speed, please set the memory speed again.

- If the driver is changed, please explain the memorized speed to the new driver.
- Cruising control may be canceled accidentally at any time due to unknown reasons. Be sure to observe the road conditions ahead and be prepared to take appropriate measures. The driver should always be responsible for the safe driving of the vehicle, and the driver is responsible for cruising at a safe speed according to the road conditions and road speed limits. In order to avoid misoperation of the cruise control system, when the cruise control is not in use, the control switch of the cruise control system should be turned off.

Warning

- Cruising control is mainly used for driving on dry

straight roads such as highways. The cruise control function shall not be used in the following scenes (including but not limited to): rain, snow, slippery roads, intersections, continuous turns, tunnels, elevated overpass, urban streets, mountain roads, overtaking, being close to the vehicle in front, trailer towed behind, being towed, etc. Otherwise, traffic accidents may be easily caused.

- When the vehicle is driving downhill on a long slope, the vehicle speed may exceed the set cruising speed. When returning to a flat road, the cruising speed control adjusts the vehicle to return to the set cruising speed. Avoid using cruising control in long downhill conditions, otherwise it may cause financial losses or safety accidents due to vehicle overspeed.

Advanced emergency braking system (AEBS)

The Automatic Emergency Braking System (AEBS) automatically detects the target vehicle or obstacle, detects potential forward collision hazards, sends an early warning signal to alert the driver, and activates the vehicle's braking system to avoid or mitigate collisions by reducing the vehicle speed.

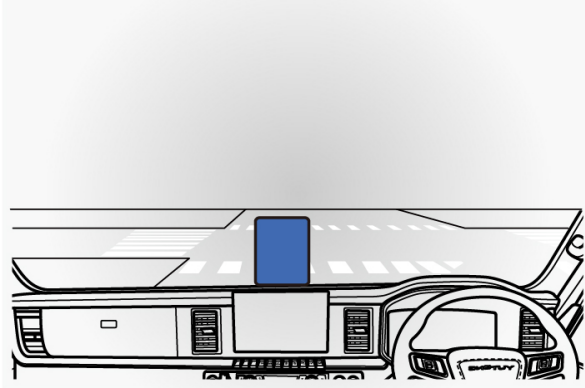
Warning

- The Autonomous Emergency Braking System (AEBS) is not an autonomous driving system and cannot replace any driving control operations or safe driving practices of the driver.
- The road surface, weather and other conditions will greatly affect the recognition and response capability

of the collision warning system. Therefore, the driver shall not rely on the collision warning system to ensure driving safety. Safe driving practices shall be observed.

- In any case, the driver must focus their attention on the road even when checking relevant alarm information of the collision warning system.
- The system cannot guarantee 100% accurate detection of vehicles, pedestrians, traffic signs or lanes.
- Do not cover or block the camera device, radar, or other detection devices.

Installation position and appearance



- It is installed in the center of the front windshield.

System startup

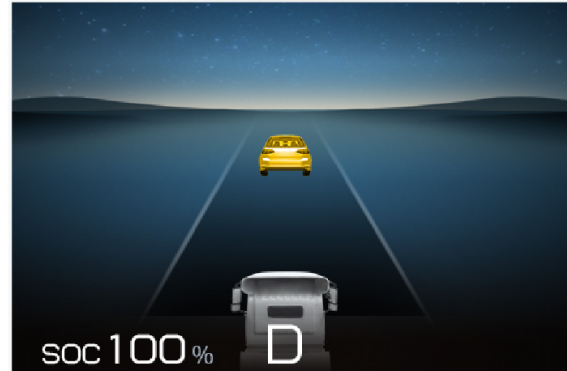
- The system turns on when the vehicle is in ignition ON status.

Function and warning description

1. FCW (Front Collision Warning)

- Trigger speed: 15-120km/h.

- Trigger condition: FCW will issue a warning not more than 1.4s in advance when a collision with the vehicle in front may occur.
- Warning form:

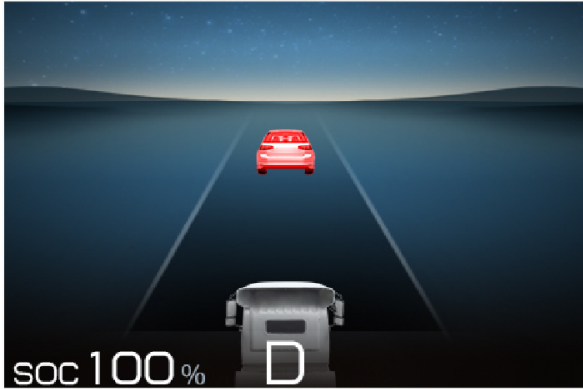


- Visual: the instrument displays a vehicle collision icon in yellow.
- Audible: slow buzzing sound.

Trigger condition: FCW will issue a warning not more than 0.8s in advance when a collision with the vehicle in front may occur.

Advanced emergency braking system (AEBS)

- Warning form:



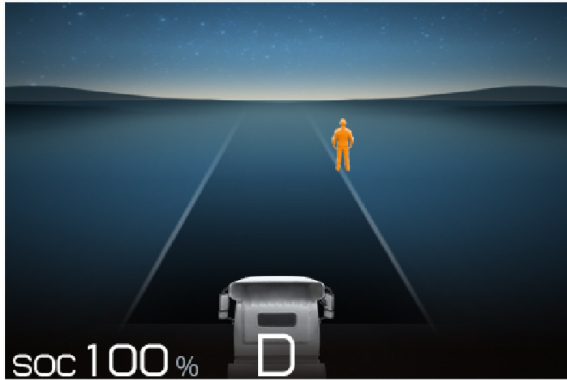
- Visual: the instrument displays a vehicle collision icon in red.
- Audible: continuous buzzing sounds.

Function description: According to the degree of collision risk, AEBS will trigger an FCW alarm to remind the driver. If the driver does not take braking or steering operations for

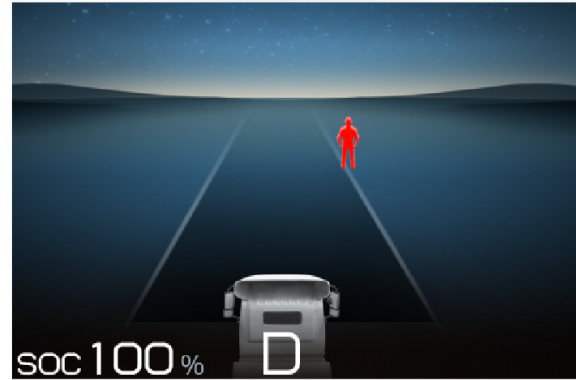
avoidance, as the collision risk continues to increase, AEBS will activate AEB for full braking, so as to avoid collision.

2. PCW (Pedestrian Collision Warning)

- Trigger speed: 15-65km/h.
- Trigger condition: in the event of a possible collision with a pedestrian in front, PCW will issue a warning not more than 1.4s in advance.
- Warning form:



- Visual: the instrument displays a flashing pedestrian icon in yellow.
- Audible: slow buzzing sound.
- Trigger condition: in the event of a possible collision with a pedestrian in front, PCW will issue a warning not more than 0.8s in advance.
- Warning form:



- Visual: the instrument displays a flashing pedestrian icon in red.
- Audible: continuously high-tone buzzing sounds.

Function description: According to the degree of collision risk, AEBS will trigger an PCW alarm to remind the driver. If the driver does not take braking or steering operations for avoidance, as the collision risk continues to increase, AEBS will

Advanced emergency braking system (AEBS)

activate AEB for full braking, so as to avoid collision.

3. System fault

- When the system cannot work normally due to external light, weather, etc., the instrument constantly displays a yellow icon

AEBS

Notice

The above indicator icon will also appear when the vehicle is powered on and will disappear within 30s, indicating that the startup is completed and that there is no fault.

Lane Departure Warning (LDW)

The Lane Departure Warning (LDW) alerts the driver in the event of an involuntary lane departure of the vehicle. Involuntary lane departures include both those that have already occurred and those that are about to occur. Alerting the driver can reduce the occurrence of side collisions and other related accidents.

Warning

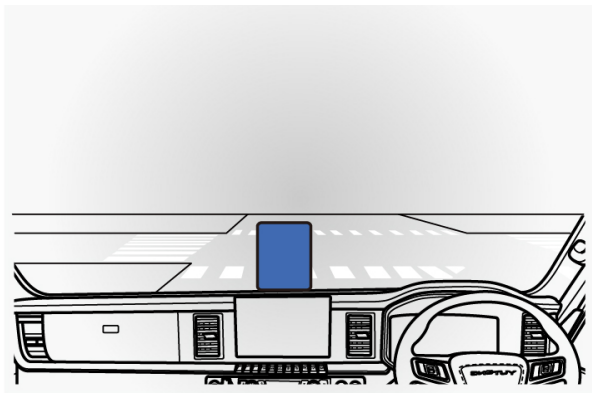
- The Lane Departure Warning (LDW) is not an autonomous driving system and cannot replace any driving control operations or safe driving practices of the driver.
- The road surface, weather and other conditions will greatly affect the recognition and response capability of the collision warning system. Therefore, the driver

shall not rely on the collision warning system to ensure driving safety. Safe driving practices shall be observed.

- In any case, the driver must focus their attention on the road even when checking relevant alarm information of the collision warning system.
- The system cannot guarantee 100% accurate detection of vehicles, pedestrians, traffic signs or lanes.
- Do not cover or block the camera device, radar, or other detection devices.

Installation position and appearance

Lane Departure Warning



- It is installed in the center of the front windshield.

System startup

- The system turns on when the vehicle is in ignition ON status.

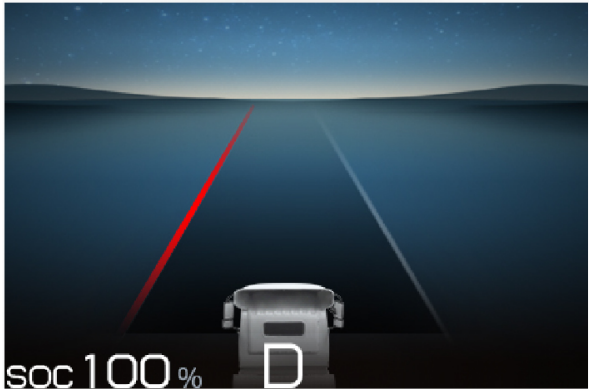
Function and warning description

- Trigger speed: 55-120km/h.

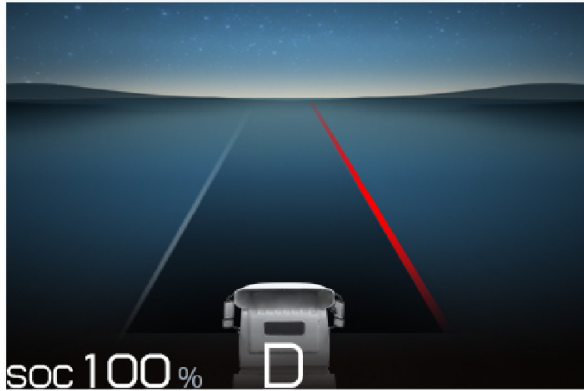
Trigger condition: The Lane Departure Warning will issue an

alarm if the vehicle has an involuntary lane departure.

Warning form:



Left lane departure warning



Right lane departure warning

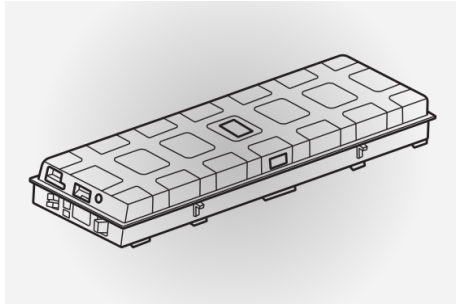
- Visual: the instrument displays the lane from which the vehicle is about to deviate in red.
- Audible: a series of short and high-note warning buzzing sound.
- The Lane Departure Warning (LDW) does not warn in the

following situations: the lane is not marked, or the lane mark is not clear, turning indicators are working, system is muted, or a sharp turn is made.

⚠ Warning

The performance of the Lane Departure Warning (LDW) is affected by weather, lighting and lane marking clarity. In the case of backlight, sunset, snow/ice-covered road, and heavily worn road, there is a significant decline in performance.

Traction battery



Traction battery provides energy for the vehicle when it starts and drives. In addition, it recovers energy during braking and works as energy storage unit of the vehicle.

Terms

- **Rated capacity:** The capacity released when a fully charged battery discharges at 111 (1 hour rate) at room temperature until it reaches 0V. The unit is Ah.
- **Rated energy:** The energy released when a fully charged battery discharges at 111 (1 hour rate) at room temperature until it reaches 0V. The units are Wh and kWh.
- **Battery Management System (BMS):** It is a system to monitor battery status (temperature, voltage, state of charge and so on), provide communication, safety, cell balance and management control for the battery, and provide the communication port to application equipment.
- **State Of Charge (SOC):** The percentage of capacity can be discharged at specified conditions to available capacity.
- **Normal operating vehicle:** a vehicle that operates, charges and discharges every day.
- **Stand-by operating vehicle:** a vehicle whose operating frequency is not fixed. And, as such, the vehicle may not be fully charged every 3 days.

- Vehicle not used for a long time: It is also called long-term shelved vehicle, a vehicle that has been stored for 15 days or longer continuously.
- Vehicle to be scrapped: a vehicle that is out of service and waiting to be scrapped.

Characteristics

Due to the intrinsic characteristics of traction battery, certain discrepancies occurred under the following conditions are normal:

- Charger power: Different charger power will affect the charging time of the traction battery. Within the charging power range allowed by the battery, the greater the power of the charger, the shorter the charging time.
- The following table shows the charger power specifications that can be used for the 100.46 kWh traction battery system:

Charger power/kw
100
80
60
40

- Factors affecting charging time: There are significant differences in actual charging time due to factors such as battery temperature, charger power, charger characteristics, number of charging sockets, number of charging plugs and SOC range.

Scenes	Affected result
The vehicle is left for a long time at low	Battery temperature is below 20°C. To avoid traction battery

Traction battery

Scenes	Affected result
temperature	damage due to charging at big current, BMS controls the charging current to reduce, and the charging time becomes longer accordingly
Charge when temperature is high or charge repeatedly	Battery temperature is above 50°C. To avoid traction battery overheat, faster capacity decay and thermal runaway, the BMS controls the charging current to reduce, and the charging time becomes longer accordingly
The SOC is high	When SOC is above about 95%, to avoid the traction battery over-

Scenes	Affected result
The SOC is high	charge due to charging at the big current, the BMS controls the charging current to reduce to realize the slow terminal charging
Power of charger is small	Output current of the charger is small (below the charging current requested by BMS), and the charging time becomes longer
One charger charges multiple vehicles at the same time	Current of the charger is shunted, so that, current for each vehicle reduces (below the charging current requested by BMS), and the charging time becomes longer

Scenes	Affected result
Using charging plug in a way that it has been unplugged and plugged frequently over a long period of time or failure to operate according to specifications	Contact resistance between charging plug and socket is big and the charging socket becomes hot. The BMS controls to reduce charging current and the charging time becomes longer accordingly

- SOC: the SOC value displayed on the instrument is an estimate SOC of the traction battery system. When using and maintaining the system as required, SOC has a $\pm 5\%$ error.
- Temperature rise: when the vehicle accelerates or decelerates sharply, drives at a high speed, drives on a uphill or downhill continuously, or when the vehicle is charged at high power,

temperature rise of traction battery becomes faster as traction battery charge and discharge current increases.

- Power consumption: when temperature of traction battery is low, to ensure normal operation of the traction battery, BMS turns on the battery heating function. The function will consume some electricity, so that the range reduces. When temperature of traction battery is high, if the vehicle is equipped with liquid cooling system, BMS turns on the battery cooling function. The function will consume some electricity, so that the range reduces.
- Driving current: when temperature of traction battery is low, to avoid traction battery damage due to charging and discharging at big current, the BMS controls to reduce charging and discharging current. Even the BMS stops charging and discharging. When temperature of traction battery is high, to avoid thermal runaway due to continuous temperature rise of

traction battery, the BMS controls to reduce charging and discharging current. Even the BMS stops charging and discharging. When SOC of the traction battery is high, the BMS controls to reduce charging current. When the SOC is above 98%, regenerative brake does not operate. When SOC of the traction battery is low, the BMS controls to reduce discharging current. When the SOC is below 20%, discharge current gradually decreases.

- Capacity decay: as years go by, traction battery capacity gradually decays. The higher the traction battery temperature is, the faster the capacity decays. The larger the charge and discharge current is, the faster the capacity decays. The more capacity in battery when the battery is stored, the faster the capacity decays. Range: as traction battery capacity decays, the range of the vehicle reduces.
- Charging current: as traction battery capacity decays, allowable

charging current of the traction battery reduces correspondingly.

- Self-discharge: while the vehicle is in a shelving state, the traction battery discharges by itself slowly, resulting in poor SOC accuracy. When the SOC and temperature are higher, self-discharge rate will be higher.
- Application upgrade: the traction battery system program needs to be upgraded as needed for better use experience.

Environmental requirements

- Usage environment temperature: -35°C to 45°C.

Notice

- When the temperature is higher than 45°C, battery is prone to high temperatures, which can cause irreversible harm or damage to the traction battery.

- When the temperature is below -35°C , the battery temperature decreases, dynamic property of the vehicle becomes worse, electrical feedback weakens, and the charging time becomes longer.

The altitude shall be below 4000m.

 Notice

If the altitude is above 4000m, please contact Yutong authorized service personnel in time. to prevent battery safety or performance from being affected.

Usage instructions of traction battery

Please read carefully following usage requirements and follow them to ensure traction battery system safety and operational reliability.

- Precautions for new vehicle charging
- The lithium-ion battery of a new vehicle has not yet been activated and needs trickle charging at the end, which will extend the charging time. Normally operating vehicles require 5~10 full charges to fully activate the battery (when the temperature is below 20°C , the number of full charges required to activate the battery will increase).

 Notice

Before the battery is fully activated, the remaining battery capacity of the vehicle will be inaccurate. When the instrument displays that the SOC is less than 20%, the vehicle needs to be charged in time.

- Usage requirements for normal operating vehicle and stand-by operating vehicle

- For battery electric vehicle, charge its battery fully once at least every 3 days. When charging it fully, select “Automatic charging” mode of the charger, and unplug the gun when the charger indicates charging is completed. Full charge is helpful to ensure the SOC accuracy and the consistency of traction battery.

Notice

If the battery is not fully charged as per above requirements, SOC accuracy will become poor and the range may not be estimated correctly, causing vehicle breakdown possibly. At the same time, consistency of traction battery becomes worse and available capacity reduces, reducing the range.

- Before putting into operation, if residue capacity of the traction

battery cannot meet operational demand, never depart. Charge it first and then go to operation. When operating, if SOC of the traction battery system is below 12%, charge it in time to avoid vehicle breakdown due to low SOC.

Notice

As traction battery capacity decays gradually, it is suggested to recharge the battery in time if SOC is below 20%, to avoid vehicle breakdown due to low SOC.

- For liquid cooling traction battery system, it is recommended that amount of accumulated daily charged capacity shall not exceed 2 times of the rated capacity.

Notice

If the battery is over charged on a daily basis, battery capacity decays faster, reducing vehicle service life.

- If the vehicle is left for a middle or short period of time (less than 15 days) below 0°C, make sure battery SOC is above 30%. If the vehicle is left for a long period of time, conduct according to the requirements in section “Vehicle Storage and Activation”.

Notice

When temperature of traction battery and SOC are too low, the battery may not be charged or charging time may become longer.

- When the environment temperature is 0°C or below, it is recommended to charge the vehicle as soon as possible after

off-work, to prevent charging time from becoming longer due to traction battery temperature reduction.

- In the process of operation, the driver shall avoid sharp acceleration and deceleration whenever possible.

Notice

When accelerating and decelerating frequently, charge and discharge current of the traction battery will increase, causing high traction battery temperature, shortened service life and vehicle range reduction.

- If enough vehicles are purchased, it is suggested to make stand-by operating vehicles and normal operating vehicles operate alternately. It is helpful to ensure SOC accuracy and battery consistency.
- If vehicle operation mileage or operation mode (such as

gradient, vehicle speed, city and so on) changes, please contact Yutong authorized service personnel in time for evaluation.

Notice

When vehicle operation mileage or operation mode changes, it could be necessary to recharge the vehicle battery to meet operation demand. This will make battery capacity decay faster and reduce vehicle service life.

- As years go by, traction battery capacity gradually decays and vehicle range will reduce accordingly. If operation demand cannot be met, adjust operation route or operation shift, or purchase new vehicles in time.
- Usage requirements for vehicles stored for a long period of

time

- To avoid poor traction battery consistency, traction battery service life reduction and safety accidents such as smoke and fire, handle battery of vehicle which is not used for a long time according to requirements in section Vehicle Storage and Activation.
- Requirements for vehicles to be scrapped
- Before a vehicle to be scrapped is stored, check that there is no fault warning, and adjust the SOC of traction battery to make it below 30%. Never consume power in an abnormal way.

Danger

- If a vehicle to be scrapped is stored with high SOC, safety risk increases. In extreme cases, safety accidents such as battery smoke, fire and so on could occur.

- Never consume power abnormally as below: depress the accelerator pedal to drive the vehicle while apply the brake switch synchronously, such as pulling the parking brake or depressing the brake pedal or doing both. The abnormal way of power consumption is likely to cause the tires and other components to smoke and catch fire, which will lead to accidents such as battery and vehicle fire, personal injury, death and other safety accidents.
- If you need to remove the traction battery, please contact Yutong authorized service personnel in time and store the traction battery in a special warehouse.

 Notice

- Never remove the traction battery without permission to prevent safety accidents.
- The battery pack removed must be stored in a special warehouse. Requirements are as follows:
- The warehouse shall meet relevant regulations on environmental protection and fire control effective in the country where the vehicle is operated.
- The warehouse shall be within -35°C ~ 45°C, spacious, flat and safe, far away from petrol station, natural gas station, hydrogen fueling station, dangerous machinery and equipment, combustion source, heat source, moisture, corrosive gas, areas with flammable and explosive substances stacked and so on. The warehouse shall be equipped with complete firefighting facilities. In addition, it shall be

away from residential areas and other crowded areas.

- The warehouse shall be dry, clean and well ventilated, equipped with good drainage facilities and complete fire fighting facilities.
- Place the traction battery system on flat surface. Never stack them or place them upside down. Never lay the battery on the ground horizontally. Keep the battery free from mechanical impact, squeeze or heavy pressure. Do not expose the battery to sunshine, rain or snow. Keep the battery away from liquid and harmful substances. It is recommended to keep the battery over 5m away from other objects. Never perform metal cutting, welding, or grinding within 10 m from the traction battery to avoid safety

accidents such as smoke, fire, etc.

- Safety warning labels stating high voltage risk shall be set in the power battery storage area. Irrelevant personnel must not approach such area.
- Video monitoring and regular patrol inspection mechanism shall be set in the power battery storage area.

Usage precautions of traction battery

- When the combination instrument displays warnings such as “Low battery capacity, please charge in time”, “Low battery capacity, please charge ASAP”, “Cell under-voltage, please charge”, charge the vehicle nearby.

 **Danger**

- If charging is not carried out in time, the vehicle will break down due to low SOC, causing battery over-discharge and damage. Under extreme conditions, traction battery smoking, fire and other safety accidents could occur.
- When the instrument displays warnings such as “Cell over-voltage, please inspect and repair”, “Low insulation, please inspect and repair”, “Circuit interlock fault, please inspect and repair”, “Branch circuit open, please inspect and repair”, “Battery communication fault, please inspect and repair”, “Battery overheat, please slow down”, please slow down and drive back slowly. Never continue operating. Please contact Yutong authorized service personnel in time.
- If operation continues, faults will be severer, which will damage the traction battery, or even bring in safety accidents such as smoking, fire, personal injury or even death.
- When the combination instrument displays warnings such as “Water cooling unit communication fault, please inspect and repair”, “Water cooling unit water pump fault”, “Water cooling unit fault, please inspect and repair”, please slow down and drive back slowly. Never continue operating. Please contact Yutong authorized service personnel in time.
- If coolant leaks into traction battery, circuit of the traction battery will be shorted, causing safety accidents such as smoke, fire, personal injury, death etc.

- When charging, be sure to use a charger meeting the relevant national standards. It is recommended to use the charger recommended by Yutong.
- If you use a charger that does not comply with national standards, has quality defect, or is not recommended by Yutong, abnormal conditions will occur, such as the traction battery overcharge, charge contactor adhesion, high-voltage electrical parts arcing and so on, which could cause traction battery damage, smoke, fire and other safety accidents.
- Charger control failure and other abnormal conditions could cause abnormal conditions, such as the traction battery overcharge, charge contactor adhesion, high-voltage electrical parts arcing and so

- on, which could result in traction battery damage, smoke, fire and other safety accidents.
- Be sure to monitor the status of the traction battery system during charging. Never charge without monitoring or use the manual charging mode of the charger.
- In case of charging unattended or charging in manual mode of the charger, abnormal conditions could be caused, such as the traction battery overcharge, charge contactor adhesion, high voltage electrical parts arcing and so on, which could result in traction battery damage, smoke, fire and other safety accidents.
- Never press emergency stop button of the charger or turn off power supply of the charger while charging

unless in case of emergency. The purpose is to avoid charger or vehicle damage. Otherwise, safety accidents such as smoke and fire could be caused.

- If the traction battery leaks fluid, please contact Yutong authorized service personnel in time. Never touch the fluid. In case of touching accidentally, immediately flush with plenty of clear water and seek medical attention.

Warning

The fluid in traction battery is corrosive and physical damage will be caused if touched.

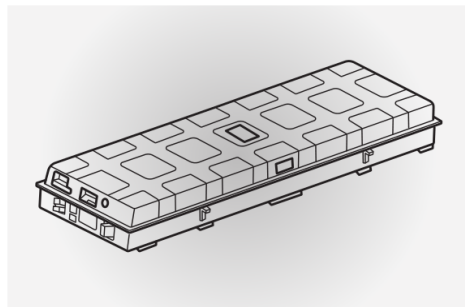
Notice

- If it is not handled in time, the water cooling unit and related components may be damaged, thus increasing the temperature of the traction battery, extending the charging time and shortening the service life.
- When the combination instrument displays warning such as “Water cooling battery water tank level is low, please add liquid”, please slow down to drive back slowly, and check if coolant leaks. If so, please contact Yutong authorized service personnel in time. If the coolant does not leak, fill some coolant with same specifications as original.
- If coolant is not added, the cooling system will stop working, which will lead to high temperature of the traction battery, longer charging time, and shorter

service life.

- If the coolant added has different specifications, the liquid cooling plate will be corroded faster, causing coolant leakage possibly.

Traction battery maintenance requirements



- Please conduct maintenance of traction battery in accordance with requirements specified in the *Maintenance Manual*.
- Yutong should not be liable for damages, environmental

pollution or safety accidents caused by failure to perform maintenance in accordance with the requirements specified in the *Maintenance Manual*. If the maintenance personnel have any questions on operation item and method, please contact Yutong authorized service personnel to consult.

Requirements on operators and environment

- Traction battery system is a high-voltage component. Maintenance of the traction battery system must be performed by Yutong authorized service personnel. Always operate strictly following electrician safety procedures. Other personnel are prohibited from operating.
- Operators must not wear gold or silver jewelries as well as metal trimmings such as watch.

 **Danger**

Gold and silver jewelries as well as metal trimmings such as watch are conductive objects. During operation, they are easy to cause short circuits of the traction battery, electric shocks and other safety accidents.

- If the user does not have traction battery maintenance ability, please contact Yutong authorized service personnel in time to maintain.
- Operating environment of traction battery maintenance should be ventilated, cool, and free from rain, water accumulated, corrosive gas, explosive gas and gas damaging insulation and conductive dust. The work area should be far away from combustion source, heat source, dangerous machinery and equipment, inflammable and explosive articles and corrosive

chemicals. Necessary fire-fighting facilities should be equipped.

Requirements before maintenance

- Set up safe work area. Others are not allowed to enter.
- Check whether the vehicle instrument displays traction battery warning. If any, never work, please contact Yutong authorized service personnel in time.



Danger

If you continue operation without handling traction battery warnings, battery damage, short circuit, smoke, fire, personal injury, death and other safety accidents could be caused.

- Before operation, cut off high-voltage circuit according to specifications, turn off the ignition key and move power handle switch to “OFF” position. The vehicle key shall be kept by

maintenance personnel.

Warning

If power is cut off improperly, vehicle damage or personal injury could be caused.

- Be sure to use special equipment and tools (including the multimeter, insulation meter, torque wrench, insulation shoes, and insulating gloves, etc.) and make sure that they are normal before use.

Danger

Operating with non-special equipment and tools or special equipment and tools with quality problem is likely to bring in safety accidents such as battery short circuit, smoking, fire, personal injury or death, etc.

Requirements during maintenance

- The maintenance personnel shall always keep in mind that high-voltage exists in the traction battery system. They shall first disconnect the manual service disconnect on the traction battery. Wait for 15min and measure that the positive and negative terminal voltages of the components to be tested are below 36V before proceeding with other operations.

Warning

Failure to operate as required is likely to cause electric shock or high-voltage short circuit.

- During operation, make sure that all high-voltage connection points do not contact and are not short-circuited to the housing or other part of the box. Use insulating tools to prevent the traction battery from short-circuit, smoking, and personal injury

or even death.

- During operation, connect the corresponding traction battery in strict accordance with the wiring harness identification and the corresponding torque requirements, so as to prevent short circuit, open circuit and poor contact.
- Never pull high-voltage and low-voltage connection wiring harness with force.

Danger

Pulling high-voltage and low-voltage wiring harnesses with force could cause short circuits, open circuits or poor contact, leading to safety accidents, such as burning, smoking, fire, personal injury or death, etc.

- Never knock, squeeze or stomp on the traction battery system during operation.

Danger

Above destructive actions may lead to short circuit, smoke, fire, personal injury, death and other safety accidents.

- Never place metal tools or metal parts on the traction battery system.

Danger

Above actions may lead to short circuit, smoke, fire, personal injury, death and other safety accidents.

- Behaviors that may damage the traction battery system are strictly prohibited, including squeezing, puncturing, burning, short-circuiting of positive and negative electrodes, overcharging, over-discharging, etc.

Danger

Above destructive actions will lead to short circuit, smoke, fire, personal injury, death and other safety accidents.

- Never remove, disassemble or replace any component of the battery system assembly without permission.

Requirements after maintenance

- After operation, install the manual service disconnect on the traction battery and make sure the service disconnects are installed in place.

Danger

If manual service disconnect is not installed in place, arcing could occur easily, causing traction battery

damage, smoke, fire, personal injury, death and other safety accidents.

- Never cover or damage warning signs. Clean them with dry cloth in time to keep them clean. If any warning sign is covered, damaged or unclear and cannot give safety risk alerts effectively, safety risk could arise.
- When the operation is finished, clean up the tools, materials and metal objects promptly.

Danger

- If the objects are not cleaned in time, short circuit, smoke, fire, personal injury, death and other safety accidents could be caused.

Operation method of traction battery balance maintenance

- The work place shall be spacious, flat and safe. The work place shall be far away from petrol station, natural gas station, hydrogen fueling station, heat source, moisture, corrosive gas, area with flammable and explosive substances stacked and so on. The work place shall be equipped with good drainage facilities without ponding, complete fire fighting facilities and charger.
- When carrying out traction battery balance maintenance, designate a person for monitoring. In case of abnormal problems, please contact Yutong authorized service personnel in time.
- For the normal operating vehicle, carry out “traction battery balance maintenance” at least once each year. For the standby operating vehicle, carry out “traction battery balance maintenance” at least once every 3 months. For long-time left vehicle, carry out “traction battery balance maintenance” at

least once every 3 months, and carry out the balance maintenance before the vehicle is put into operation for the first time.

Notice

If the traction battery balance maintenance is not performed as required, the traction battery consistency will become poor, service life will be shortened, and the vehicle range will be reduced.

Operation procedure of traction battery balance maintenance

1. Normally drive the vehicle to discharge the battery SOC to 25%-30%, to guarantee the balance effect. Never consume power in an abnormal way.

Notice

- If SOC of the traction battery is out of the range, balance effect will be impaired.
- Never consume power by violent operation. Such as, accelerate frequently and brake sharply. Otherwise, the traction battery's service life and the range will be reduced.

Danger

Never consume power abnormally as below: depress the accelerator pedal to drive the vehicle while apply the brake switch synchronously, such as pulling the parking brake or depressing the brake pedal or doing both. The abnormal way of power consumption is likely to cause the tires and other components to smoke and catch fire, which will lead to accidents such as battery

and vehicle fire, personal injury, death and other safety accidents.

2. Stop the vehicle stably, shift to neutral (N) gear and pull up the parking switch.

Danger

Failure to operate according to the requirements above may cause the vehicle to automatically coast or suddenly run at start, leading to vehicle collision, personal injury and even death.

3. Turn off all the electrical equipment switches and ignition key, and turn on the ignition key. Check all the electrical equipment switches in the vehicle, making sure they are turned off.

 Warning

If any electrical equipment switch is not turned off, traction battery balance effect will be affected if the electrical equipment turns on while traction battery balance is being carried out, even causing traction battery and storage battery over-discharge.

for balance, traction battery balance effect will be affected, even causing traction battery and storage battery over-discharge.

- If period for balance does not reach 12-15h, or if balance is not completed within 1 month, battery balance effect may be not good and traction battery consistency becomes poor.

4. Keep the vehicle powered on for 12-15h. Do not drive or use any electrical equipment during balance. If the period cannot be met due to operating time, perform this maintenance in 2 ~ 3 times within one month. Ensure that the accumulated standing time meets the requirements.

5. After maintenance, fully charge the battery once.

 Notice

- If any electrical equipment is used within the period

 Notice

If the battery is not fully charged after the maintenance, SOC accuracy will become poor.

6. To continue to store the vehicle, drive the vehicle normally again to discharge the battery till SOC reaches 40%-70%. Never

consume power in an abnormal way.

Danger

- Never consume power abnormally as below: depress the accelerator pedal to drive the vehicle while apply the brake switch synchronously, such as pulling the parking brake or depressing the brake pedal or doing both. The abnormal way of power consumption is likely to cause the tires and other components to smoke and catch fire, which will lead to accidents such as battery and vehicle fire, personal injury, death and other safety accidents.
- When a battery is stored, if its SOC is above 70%, its capacity decays fast, and even battery smoke, fire and other safety accidents may occur.
- When a battery is stored, if the battery SOC is below

40%, it may cause battery over-discharge.

Other precautions and warnings about the traction battery system

- Read and follow all instructions on the label of the traction battery system to protect you and your vehicle.
- Never directly touch high-voltage components of the traction battery system in all cases.
- When washing the vehicle, never flush traction battery compartment and traction battery system with water. Otherwise, insulation could fail, causing high-voltage components damage or personal injury.
- Never mix batteries of different vehicles, manufacturers, models and conditions. Otherwise, battery performance will be reduced or the vehicle cannot operate normally, and even lead to smoke, fire, personal injury, death and other safety

accidents.

- Personnel not authorized by Yutong should not repair, remove, install or disassemble the traction battery system. Otherwise, short circuit, arcing, smoke, fire, personal injury, death and other safety accidents could be caused easily.
- If a traction battery fire prevention and control device is installed, when the battery experiences severe high temperature or smoke, the fire prevention and control device will automatically start to spray suppression agent on the abnormal battery to ensure the safe evacuation of passengers. If the battery fire is large and the fire extinguishing device cannot extinguish the fire, contact the fire department to extinguish the fire.



Danger

The inhibiting medium is injected at high pressure into

the battery pack. The high pressure injection may cause damage to the electrical parts inside the battery pack. If the battery pack is used continuously, it may easily lead to safety accidents such as battery smoke and fire.

Notice

- The fire prevention and control device detects the signs of hazardous sources that may cause a fire and gives an alarm and sprays the suppression medium, which is effective in the early stages of a fire. Fire water gun must be used to extinguish the fire when the fire is large.
- When the fire prevention and control device is activated, the battery pack contaminated by the

suppression agent must be scrapped and cannot be used further.

Scrap the traction battery system

- The designed service life of the traction battery is up to 8 years. If the battery is used beyond the warranty period (refer to the warranty manual for the warranty period of the traction battery), it is recommended to scrap the battery.



Danger

After the traction battery is used beyond the warranty period, its safety reduces and fault rate increases. If it is used continuously, the traction battery will smoke and catch fire, causing vehicle fire and endangering life.



Notice

- Removal and transportation of traction battery must be handled by professional organizations to prevent safety accidents.
- Before scrapping the traction battery, if the instrument displays traction battery fault warning or other abnormal information, please contact Yutong authorized service personnel in time.
- If the removed traction battery cannot be transported to the recycling company in time, to ensure safety of the traction battery and avoid smoke and fire accidents, make sure the SOC of the traction battery is below 30%. In addition, the removed traction battery must be stored in a special warehouse, with requirements as follows:

- The warehouse shall meet relevant regulations on environmental protection and fire control effective in the country where the vehicle is operated.
- The warehouse shall be within -35°C ~ 45°C, spacious, flat and safe, far away from petrol station, natural gas station, hydrogen fueling station, dangerous machinery and equipment, combustion source, heat source, moisture, corrosive gas, areas with flammable and explosive substances stacked and so on. The warehouse shall be equipped with complete firefighting facilities. In addition, it shall be away from residential areas and other crowded areas.
- The warehouse shall be dry, clean and well ventilated, equipped with good drainage facilities and

complete fire fighting facilities.

- Place the traction battery system on flat surface. Never stack them or place them upside down. Never lay the battery on the ground horizontally. Keep the battery free from mechanical impact, squeeze or heavy pressure. Do not expose the battery to sunshine, rain or snow. Keep the battery away from liquid and harmful substances. It is recommended to keep the battery over 5m away from other objects. Never perform metal cutting, welding, or grinding within 10 m from the traction battery to avoid safety accidents such as smoke, fire, etc.
- Safety warning labels stating high voltage risk shall be set in the power battery storage area. Irrelevant personnel must not approach such area.

- Video monitoring and regular patrol inspection mechanism shall be set in the power battery storage area.

Special instructions

- For traction battery damage or safety accident not caused by traction battery quality, Yutong does not assume any responsibility and does not provide traction battery quality warranty service. It includes but not limited to the following:
 - Traction battery damage, environment pollution and safety accidents caused by use, maintenance, caring and storage not in accordance with Yutong's Product Instructions.
 - Traction battery damage or safety accidents due to squeezing, puncturing, burning, short circuit, over-charging and over-discharging.
 - Traction battery damage or safety accidents due to artificial knocking, squeezing or depressing the traction battery.
 - Traction battery damages or safety accidents due to repair, modification, installation, removal or replacement without authorization.
 - Traction battery damages or safety accidents due to troubleshooting without authorization.
 - Traction battery damages or safety accidents due to failing to maintain the faulty vehicle in time and continuing operation.
 - Traction battery system beyond warranty period.
 - Traction battery damages or safety accidents due to improper installation of service disconnect by user.
 - Traction battery damage or safety accidents due to the use of a charger which does not comply with national standards or has quality defect.
 - Traction battery damages or safety accidents due to charging

operation not according to specifications.

- Traction battery damages or safety accidents due to charging with non-genuine Yutong charging pile.
- Traction battery damages or safety accidents because the traction battery is soaked in water and other fluid.
- Traction battery damages or safety accidents due to vehicle accidents, such as head-on collision, side collision, rear collision, rear collision, falling off, bottoming out or scratch, roof impact or scratch, foreign matter falling off from roof, rollover, wading, soaked, fire and so on.

Traction battery damages or safety accidents due to earthquake, typhoon, lightning strike, flood, tsunami, hail, sand, mud-rock flow, landslide, flying rock, fire, chemical pollution and other force majeure or human factors.

Traction battery damages or safety accidents due to abnormal

driving.

Environment pollution or safety accidents caused by traction battery scrapping by user or contacting manufacturers not authorized by Yutong to recycle/scrap traction battery.

Charging Device

It is a device designed for charging of traction batteries for the new energy vehicle.

Charger installation and placement requirements

- The charger base should be at least 20cm above the ground.

Danger

If the charger base is too low, there is a risk of water entering when it rains, causing a safety accident.

- The installation and wiring of the charger must be carried out by Yutong authorized service personnel.

Danger

It is strictly forbidden for non-Yutong authorized service

personnel to install the charger, otherwise it will cause injury to personnel.

- The wiring should be firm and reliable, and the current carrying of the input cable should be greater than the rated input current of the charger.

Danger

If the wiring is loose, it should be tightened. If the input cable is thin, replace the cable with the required current-carrying capacity, otherwise the cable may be ablated or caught on fire.

- The charger shall be fixed firmly and reliably.

Requirements for the charging operator

- Charging operators shall be trained before operation.

 Danger

Non-Yutong authorized service personnel should not charge a vehicle; otherwise, it will cause safety risks.

- Charging operators should wear insulating gloves and shoes during charging.

 Danger

If a charging operator does not wear insulating gloves or shoes, the charging operator will contact with high-voltage directly, injury or even endangering life.

- The charging operator should not wear gold or silver jewelries as well as metal trimmings such as watch.

 Danger

If the charging operator wears gold and silver jewelries as well as metal trimmings such as watch, the items will contact with high-voltage, endangering life.

Requirements for the charging operator

- The drainage facilities in the charging place should be intact.

 Danger

If drainage facility is not available in charging place, or if any drainage facility has a fault, when charging in rainy days, there is a risk of water entering, leading to safety accident.

- Canopies shall be established in charging place, which can shield the charger and vehicle charging socket.

Danger

If qualified canopy is not available, never charge when it rains. Otherwise, water could enter charger or charging plug/socket connection area in the process of charging, resulting in short circuit and safety accidents.

- Make sure there are no sundries around the charger. Never stack flammable and explosive items nearby.

Warning

- Move sundries away from the charging place. Otherwise, heat dissipation of charger will be affected, leading to a risk of abnormal charging or equipment damage.
- Move flammable and explosive items away from the

charging place. Otherwise, a fire could be caused.

- Never set a charger on emergency and fire fighting access.
- Fire protection facilities should be provided around the charger. Relevant operators should be trained on how to use them, so as to ensure that they can deal with a fire or other situations correctly.
- The transformer output end should be equipped with a circuit breaker. The transformer and the circuit breaker selected should meet requirements of related power supply design specifications of the sales country.

Warning

If transformer and circuit breaker with improper specifications are selected, safety accident could be

caused.

If the door of the charger device is not closed, it may cause electric shock to personnel.

Preparations before charging

- Check the charger status
- The charger is fixed firmly and reliably, and its housing should be intact without damage or sign of water.

Warning

If the charger housing is damaged and water enters, please contact Yutong authorized service personnel in time, otherwise it may cause damage to the vehicle and the charger or safety problems.

- All equipment doors are normally closed.

Danger

- If the charger has rollers, make sure the rollers are locked.

Warning

If the rollers are not locked, it may cause the charger to slip, or even cause damage to the vehicle, charger, or safety problems.

- The power supply indicator of the charger comes on normally, and the fault indicator doesn't come on.

Notice

If the power supply indicator doesn't come on, or the fault indicator comes on, it will not be able to charge the

battery, please contact Yutong authorized service personnel in time.

- The touch screen of the charger normally displays and is operable.

Notice

If the touch screen cannot display or work normally, it may not charge normally, please contact Yutong authorized service personnel in time.

- The charging plug cable and charging plug head are in good condition, without damage, and the cable is not deformed or bulged. Otherwise, never use it.

Warning

If the charging plug cable or charging plug is damaged or bulged, there is a safety risk and never use it, please contact Yutong authorized service personnel in time.

- The charging plug head must be free of foreign objects and dry without water stains, otherwise never perform charging work.

Warning

If there are foreign objects or water stains in the charging plug head, it needs to be handled by Yutong authorized service personnel, otherwise it may cause abnormal charging and cause safety risks.

- In rainy and snowy weather, it is necessary to strengthen the inspection of whether the charger and the charging plug wire are soaked in water, and ensure that the charger and the

charging plug wire are dry and free of water stains.

- Check the vehicle status
- The vehicle should be level, with gear N and parking switch pulled.

Warning

Failure to operate according to the requirements above may cause the vehicle to automatically slip or suddenly run when starting, leading to vehicle collision accident.

- Turn off ignition key, keep the power handle switch of the vehicle ON status, make sure nobody is inside and close doors.
- Manual service disconnect (MSD) is connected normally. If the MSD switch is not connected normally, please contact Yutong authorized service personnel in time.
- The charging socket is in good condition without foreign matter

and dry without water stain.

Danger

If the charging socket of the vehicle is damaged, please contact Yutong authorized service personnel in time. If there is foreign matter or water stain in hole of the charging socket, remove with high pressure air gun and please contact Yutong authorized service personnel in time if it cannot be removed. If the charging socket is damaged, or any foreign matter or water stain is found out inside, it may cause abnormal charging and safety risks.

Notice

If the non-genuine Yutong DC charger is used, please

charge the battery according to requirements of the manufacturer. For vehicle damage or safety problems caused by quality problems of non-genuine Yutong charger, Yutong assumes no responsibility.

Charging operation steps

1. Find the charging port cover on the vehicle and open it.
2. Open the upper end cover of the charging socket.
3. Take the charging plug out of the charging machine gun wire hanger and insert it into the vehicle charging socket.

Notice

The following steps are for Yutong chargers. The charging modes of non-Yutong chargers may be different. Please refer to the instructions of other brands

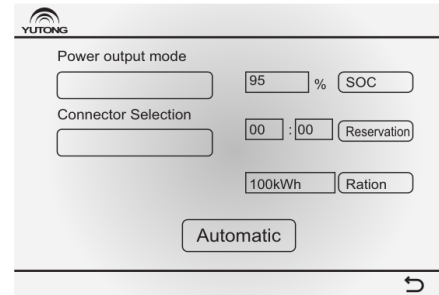
of chargers for details.

The charging plug should be used alternately, and the charging plug with lower temperature should be used instead of using the same charging plug for a long time. Otherwise, it may cause abnormal charging and induce safety risks.

When removing the gun wire of the charging plug, it should be taken lightly, and hold the gun with one hand and drag the cable with the other hand. Never drag and pull, or rub the gun wire on the rough ground. Never twist the gun wire, otherwise it will lead to the bulge of the charging plug wire and the gun head pulled off. There are safety risks.

To insert into the charging socket, hold the handle

tightly with one hand and the bottom of the plug with the other hand, with even force. Insert the charging plug into the charging socket horizontally. Prevent the charging plug from stress in the left and right direction. Do not shake the charging plug side to side. Always insert horizontally. Otherwise, it may damage the charging plug/socket, cause abnormal charging, and lead to safety risks.



4. Charging mode:

- Automatic charging: To fully charge by default. During the charging process, never use sharp objects to operate the charger, otherwise it may cause screen fault of the charger.
- Scheduled charging: The starting time can be set. It is defaulted to start charging at the set time and conducted full charging.
- Quantitative charging: The charging battery capacity can be set.
- Charging at rated expense (not provided for some models):

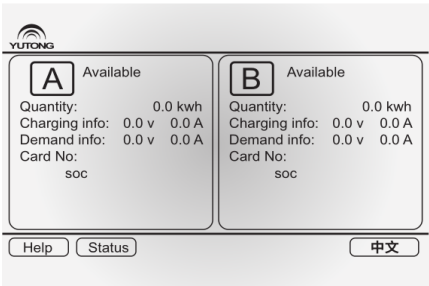
Charging Device

- The charging expense can be set.
- SOC charging: The charging percentage can be set.
5. Select the charging plug:
- According to the charging plug number inserted into the vehicle socket, click to select the corresponding charging plug.

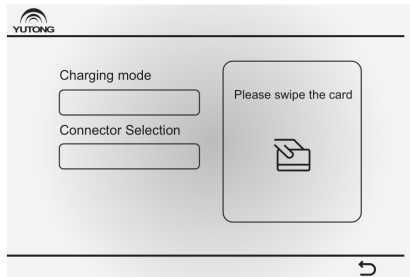
 Notice

If the charging plug selection interface prompts “Gun temperature is too high”, use other guns to charge, or wait until the gun no longer prompts “Gun temperature is too high” before using it. When using a charging plug that shows “Gun temperature is too high”, abnormal charging will occur.

6. Selection interface of swiping card and output power

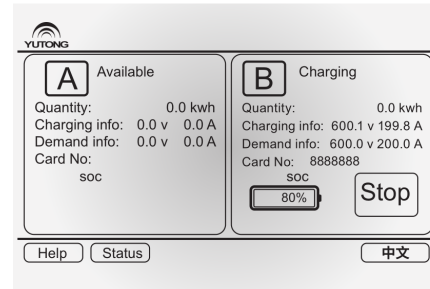


- If the user sets the output power of the charger by default, and clicks and selects to open “Cardless charging” in the function settings, the following interface will not be displayed, and the charging status monitoring interface will be directly entered after selecting the charging plug.
- Swipe card to start:



- If “Card swipe charging” is set, when the charging process enters the card swipe interface, the interface prompts “Please swipe card”. Otherwise, the interface will not be displayed.

7. Charging status monitoring



- After the charging parameters are configured, the DC charger starts charging the battery electric vehicle. The charging voltage, charging current, charging battery capacity, SOC and other charging information can be monitored in real time in the charging interface.

8. End of charging:

- When the charger ends charging according to the set conditions or manually click “Stop charging”, it will enter the

charging end interface.

- Hold the handle of the charging plug tightly with one hand, press the unlock key with the thumb, hold the lower end of the gun body with the other hand, and use even force to pull out the charging plug horizontally and put it back into the charger. The charging is completed.
- The charging plug must be pulled out after charging. Never pull out the gun with power on, otherwise it may cause problems such as arc ablation of the charging plug/socket and adhesion of the charging contactor.
- When pulling out the charging plug, hold the handle of the charging plug firmly with one hand, press the unlock key with the thumb, and hold the lower end of the gun body with the other hand, and pull out the charging plug horizontally. Never shake the charging plug left and right. Otherwise, it may damage the charging plug/socket, cause abnormal charging,

and lead to safety risks.

- When retracting the gun wire, wrap the charging plug wire on the hanger and insert the charging plug head into the empty socket on the charger. The wound gun wire should be smooth, and distortion and bending stress are not allowed. Never throw the charging plug on the ground at will. Otherwise, the charging plug may be damaged.
- Close the charging socket end cover in place and close the charging port cover.

Warning

In an emergency, please press the red emergency stop switch of the charger or turn off the working power supply of the charger.

Precautions

- Before charging, check according to the Preparations before Charging, and place a warning sign with the content of “Charging, do not approach” at the charging position, and it is strictly forbidden for non-charging personnel to approach.
- During the charging process, never perform any operations on the vehicle unrelated to charging, such as overhauling the vehicle or moving the vehicle. Never pull out the manual service disconnect (MSD), or move the charger.

 Danger

If the warning sign is not placed, unrelated personnel may misuse or touch high-voltage components by mistake, causing electric shock to personnel, damage to vehicles, chargers, or other safety problems.

 Danger

If moving the vehicle, repairing the vehicle, pulling out the manual service disconnect, or moving the charger, it may lead to vehicle or charger damage, or resulting in safety accidents.

- Never use the “Manual charging” mode.

 Danger

Using the “Manual charging” mode may lead to a safety accident.

- Never use the charger if it is found that water has entered the charger before charging in rainy, snowy and humid weather. After drying the equipment, contact Yutong authorized service personnel for evaluation. If water enters the charging socket or charging plug head, the device should be dried and cleaned,

and it can be used only after confirming that there is no abnormality in the insulation.

Danger

If water enters the charger and charging plug, it will cause a short circuit and cause a safety accident.

- If it rains (snows) during the charging process, immediately check whether there is a risk of water entering the connection between the charger, the charging socket and the charging plug. If there is a risk, stop charging immediately, power off the charger, pull out the charging plug and protect the charging socket and charging plug.

Danger

If water enters the connection between the charger,

charging socket or charging plug, it may cause short circuit, thus leading to safety accidents.

- If abnormal noise, smoke and other abnormal conditions occur during the charging process, cut off the power supply immediately, please contact Yutong authorized service personnel in time.

Warning

If the power supply is not cut off, it may cause fault effects to expand.

- When the charger has abnormal operation such as no response, fault warning, air switch protection disconnection, etc., the power supply should be cut off in time, please contact Yutong authorized service personnel in time.

 Warning

If the power supply is not cut off, it may cause fault effects to expand.

- When a fire occurs in the charging place, use dry powder fire extinguisher or carbon dioxide fire extinguisher to extinguish the fire, and never use water-based fire extinguisher.

Maintenance requirements

- Routine maintenance can ensure that the charger is always in a good working condition, and fault diagnosis and maintenance can be completed by Yutong authorized service personnel or trained users;
- It is necessary to disconnect the power supply on the input side of the charger during maintenance.
- Operators must wear insulating gloves and shoes, otherwise

there is a risk of electric shock.

The routine maintenance work of the charger

- Regularly clean the interior of the charger and the dust, foreign objects, water stains, etc. inside the charging plug head, and clean the interior of the charger every three months. In case of harsh environments, the cleaning interval can be shortened depending on the specific situation.

 Warning

- If the interior of the charger is not cleaned in time, it may cause fault of charging module.
- If the charging plug is not cleaned in time, it may cause high temperature of the charging plug and lower charging power.

Transportation requirements of charger

- During transportation, use a solid wooden box to pack the charger body and the charging plug in good condition and mark the direction of unloading. Do not store and transport the charger upside down.

Notice

Transporting upside down can cause damage to the charger.

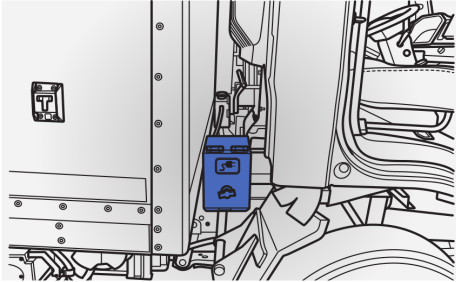
- Corresponding tightening measures should be taken during transportation to avoid strong vibration and bumps from damaging the outer packaging of the equipment.
- After arrival, check whether the box is damaged. After unpacking, check whether the items in the box are consistent with the packing list, and check whether there is condensation, frost or water ingress. If there is, have Yutong authorized

service personnel check for qualified insulation before using.

Storage requirements of charger

- The equipment shall be well packaged and stored indoors with relative humidity $\leq 90\%$ and ambient temperature -35°C - 55°C .
- The storage place should be dry, clean and well ventilated, and can prevent the intrusion of various harmful gases. Never store it in the same place with the corrosive items.
- Chargers should not be exposed to rain, exposed to sunlight, condensation and frost during storage.
- If the storage period is more than half a year, please contact Yutong authorized service personnel in time for inspecting before use.

Charging Socket



It is the connection port between charging plug and the vehicle power supply system, and used to charge the vehicle.

Danger

- The charging socket is the high-voltage component. Non-Yutong authorized service personnel should not remove, install or touch the charging socket.

Otherwise, personal injury or death could be caused.

- After opening the charging socket end cover, never touch the bare terminals with hands or any other object to avoid electric shock.
- Never cover or damage warning signs. Clean them with dry cloth in time to keep them clean. If any warning sign is covered, damaged or unclear and cannot give safety risk alerts effectively, safety risk could arise.
- Never stack flammable material around the charging socket. Otherwise, there is a risk of fire.
- Never remove or install the charging socket without permission. Otherwise, the charging socket could fail due to improper assembling, resulting in safety risk.

Warning

- When charging, pay attention to checking the charging socket is in good condition. If any damage, never charge, please contact Yutong authorized service personnel in time. Otherwise, charging accident could be caused.
- When charging, make sure there is no foreign matter or water on the charging socket. If any, never charge and remove with high pressure air gun. Otherwise, charging accident could be caused.
- If there are foreign matter or water stains in the charging socket hole, never charge, and use high pressure air gun to clean, otherwise it will cause a charging accident.
- If color of charging socket hole changes or if there is

corrosive pitting on the charging socket hole, never charge and replace in time. Otherwise, charging accident could be caused.

Notice

- Do not open the charging protective cover when charging operation is not conducted. Restore the charging protective cover after charging is completed.
- Check the socket protective cover and the socket before charging. Do not charge the vehicle before confirming that they are in good conditions.
- The vehicle automatically adjusts the charging power depending on temperature of charging plug and socket connection area, battery SOC, temperature

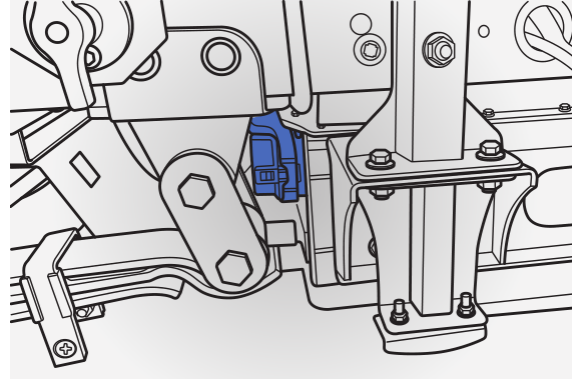
and so on.

- Please conduct maintenance in accordance with requirements specified in the *Maintenance Manual*.
- Never shake the charging plug while inserting the gun or charging; otherwise it may cause fault or damage of the charging plug or charging socket.

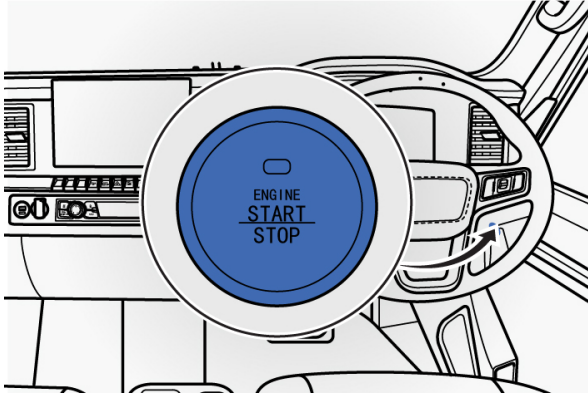
Manual service disconnect

Manual service disconnect is also called quick breaker or high voltage service disconnect. It is a kind of switch or device, which is used to cut off high voltage output of traction battery before maintenance or repair. Service disconnect with fuse has short circuit protection function.

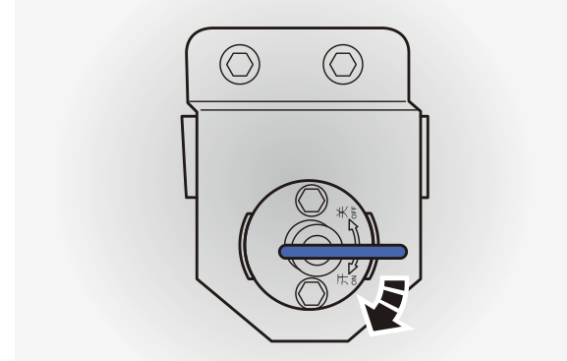
Manual service disconnect on the traction battery



- Before removing the manual service disconnect, cut off the high-voltage circuit according to specifications:



1. Turn off the ENGINE START STOP switch.



2. Turn the power handle switch counterclockwise to "OFF".

⚠ Danger

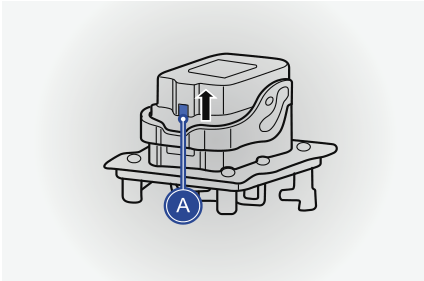
Failure to do as required could cause arcing, and even smoke, fire, personal injury or death, and other safety accidents.

Notice

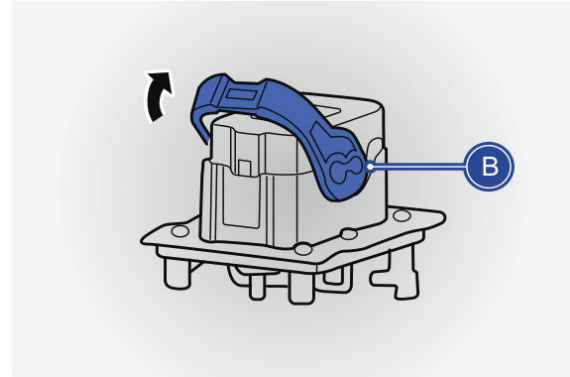
- Please conduct maintenance in accordance with requirements specified in the *Maintenance Manual*.
- Never operate violently when removing and installing the manual service disconnect.

Use method

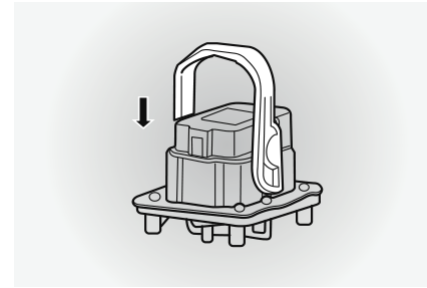
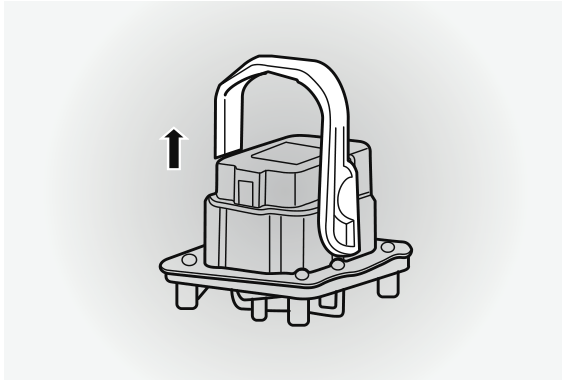
• Removal:



1. Push the manual service disconnect buckle  upward.



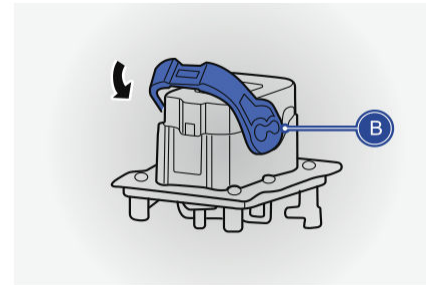
2. Pull up the manual service disconnect handle  in the direction of the arrow until the handle is vertical.



1. Press the manual service disconnect into the base.

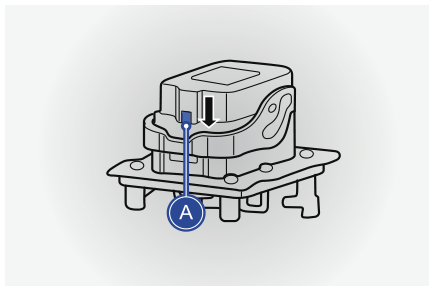
3. Lift the handle and pull out the manual service disconnect.

• **Install:**



Manual service disconnect

2. Press the manual service disconnect handle **B** in the direction of the arrow until you hear a “click” sound.



3. Push the manual service disconnect buckle **A** downward.
4. Gently pull the manual service disconnect and confirm whether it is installed in place.

Danger

- The manual service disconnect is a high-voltage

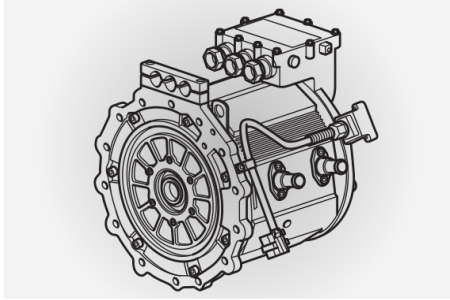
component. Non-Yutong authorized service personnel must not remove, install or touch it. Otherwise, personal injury could be caused.

- During operation, never wear metal trimmings such as gold or silver jewelry and watches. Otherwise, personal injury and even death could be caused due to electric shock.
- Only 15 minutes after the manual service disconnect (MSD) is cut off and the positive and negative voltage of the measured components is lower than 36V, the high-voltage components can be operated. Otherwise, personal injury and even death may be caused due to electric shock.
- To remove the manual service disconnect, operate as required to prevent damage to the locking

mechanism. After removal, properly protect the base to prevent foreign objects from entering and causing short-circuit.

- To install the manual service disconnect, operate as required and install it in place, to avoid looseness, ablation and even battery damage, smoking, firing, personal injury or death etc.
- Never cover or damage warning signs. Clean them with dry cloth in time to keep them clean. If any warning sign is covered, damaged or unclear and cannot give safety risk alerts effectively, safety risk could arise.

Traction motor



Function

When the vehicle is driven for driving, it converts electric energy into mechanical energy to provide power for the vehicle.

When the vehicle brakes, it converts mechanical energy into electric energy, recovers braking energy in vehicle control condition, and provides auxiliary braking for the vehicle. It has the function of the regenerative brake.

Danger

The traction motor is a high-voltage component.

Personnel not authorized by Yutong should not touch, remove or install it. Otherwise, it will cause safety accidents such as high and low-voltage short circuit and fire, and endanger life.

Warning

- Failure to maintain according to the regulations in the *Maintenance Manual* provided with the vehicle or failure to use original parts will affect the service life of the traction motor.
- If interior of the traction motor makes abnormal noise, never drive. Otherwise, the traction motor will be

damaged, causing vehicle breakdown. Please contact Yutong authorized service personnel in time.

- If the instrument alarms for low insulation fault, stop at once, turn off ignition key and handle power switch and contact Yutong authorized service personnel. Otherwise, the traction motor could be damaged, and there is a risk of personal electric shock.
- When traction motor fixing pad and bracket crack, drive shaft becomes loose, high-voltage wire damages etc., please contact Yutong authorized service personnel in time.
- If the housing of the traction motor is deformed or broken, never touch the motor and continue driving the vehicle. Please contact Yutong authorized service personnel in time to avoid electric shock or major

vehicle safety accidents.

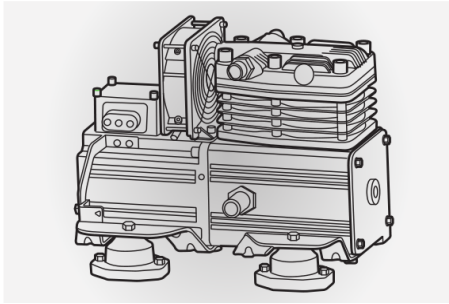
- Never damage, remove ground wire of the traction motor. If the ground wire falls off or breaks, please contact Yutong authorized service personnel immediately. Otherwise, vehicle insulation could have a fault, causing personal injury due to electric shock.
- Never remove or install parts and components of the traction motor without permission. Otherwise, coordination of parts and components inside the motor will change, causing safety accident.
- Never cover or damage warning signs. Clean them with dry cloth in time to keep them clean. Otherwise, the safety risk prompt cannot be effectively provided, which may cause safety risks.

Notice

- Don't overspeed to avoid overload of traction motor parts and components, affecting service life of the traction motor.
- Please keep radiator of electric drive system clean and make sure its coolant is within normal range, avoiding affecting heat dissipation of traction motor. Otherwise, over temperature could occur, resulting in vehicle breakdown.
- When the temperature is below zero, if the vehicle drives in rain or snow environmental condition, remove debris accumulated from output shaft of the traction motor in time, to prevent output shaft from being frozen.
- If it is necessary to replace the traction motor, please

apply to the vehicle administration office where the vehicle is registered in time.

Electric air compressor



The electric air compressor provides the vehicle with the compressed air required for air bag suspension.

Start conditions

- The electric air compressor is equipped with a controller, which detects the air outlet pressure. When the pressure is less than 7.8 bar, the air compressor is started.

Stop conditions

- When the pressure reaches 10 bar, the solenoid valve is energized, the controller stops the electric air compressor and the solenoid valve output, and the electric air compressor stops.

Danger

- Non-Yutong authorized service personnel must not remove, install or repair the electric air compressor. It must be maintained by Yutong authorized service personnel. The maintenance process shall be carried out according to *Maintenance Manual* strictly. Otherwise, parts damage, short circuit and other safety accidents could be caused.
- Never remove or install internal parts and components without permission. If motor, piston and

other moving parts are not fastened in place, they could become loose easily. Personal injury or part and components damage could be caused.

- When the electric air compressor is operating or just after it stops, never touch it and its exhaust pipeline. Otherwise, burns could be caused.

requirements specified in the *Maintenance Manual*. If maintenance is not carried out on schedule or if a non-original parts is used for maintenance, performance degradation, fault, or damage could be caused.

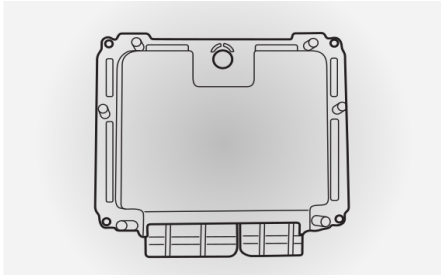
Warning

When the instrument prompts “Air compressor fault”, pull over in time and contact Yutong authorized service personnel. Continuing to drive brings risk of accidents.

Notice

Please conduct maintenance in accordance with

Vehicle Control Unit (VCU)



The vehicle control unit is the core control component of the battery electrical vehicle. It controls actions of various component controllers by collecting acceleration pedal signals, brake pedal signals and signal of other components to drive the vehicle to move normally.

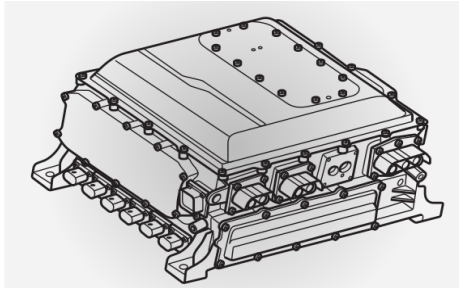
Functions of the vehicle control unit contain: drive control, braking energy recovery control, maintenance and management of

communication network, fault diagnosis and treatment, vehicle status monitoring and so on.

! Warning

Never remove or install without permission. Otherwise, coordination of internal parts and components will change, and vehicle control will be affected, causing vehicle safety accident.

Integrated Control Unit (ICU)



The integrated control unit integrates the traction motor controller, air compressor controller, DC/DC converter, high-voltage power distribution, insulation detection and fast charging interface. The functions are as follows:

- Traction motor controller: It converts the high-voltage power output of the traction battery into three-phase AC used for the motor, and receives commands from the vehicle control unit to
- Air compressor controller: It converts the high-voltage power output of the traction battery into three-phase AC used for the air compressor, and receives commands from the vehicle control unit to drive the air compressor.
- DCDC converter: It controls the DCDC to receive the commands of the vehicle control unit and converts the high-voltage DC output of the traction battery into 27.8V low-voltage DC electricity to provide the vehicle with low-voltage electricity and charge the battery.
- High-voltage distribution system: It controls the power supply logic of the entire high-voltage system, and manages and coordinates normal operation of parts and components of the high-voltage system.

- Insulation detection: It always monitors the insulation resistance of the vehicle's high voltage system, and gives timely warnings on low insulation resistance.
- Fast charging interface: It provides the charging interface for the traction battery, and receives the BMS command to close the charging contactor.

Danger

- The integrated control unit is a high-voltage component. Non-Yutong authorized service personnel must not remove, install and touch the integrated control unit. Otherwise, personal injury or death could be caused.
- Never remove or install without permission. Otherwise, coordination of internal parts and components will change, and vehicle control will be

affected, causing vehicle safety accident.

- Never cover or damage warning signs. Clean them with dry cloth in time to keep them clean. If any warning sign is covered, damaged or unclear and cannot give safety risk alerts effectively, safety risk could arise.
- When it needs to be inspected and repaired, please contact Yutong authorized service personnel in time to handle. Internal parts and components used must be of the same specification and quality as Yutong. Otherwise, it will cause fire and other personnel injuries.

Warning

- Failure to conduct maintenance as required in the

Maintenance Manual or using non-original parts will cause the integrated control unit to work improperly, thus affecting the service life of the control unit.

- Never touch, unplug or plug the high-voltage connector and low-voltage connector of the integrated control unit without permission, to avoid electric shock accident or control unit damage.
- After the integrated control unit wades or is soaked in water, if the instrument alarms for low insulation fault, stop at once, power off and please contact Yutong authorized service personnel in time. Otherwise, the control unit could be damaged, and there is a risk of personal electric shock.
- Never repair the integrated control unit or remove its cover plate and high-voltage wiring harness without

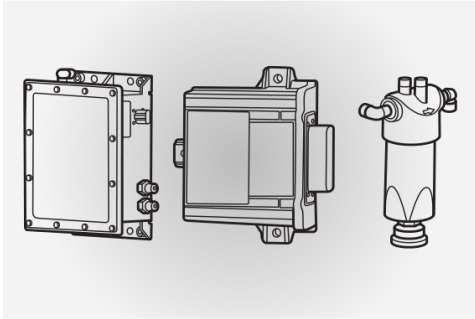
permission under any circumstances. Otherwise, electric shock accident or integrated control unit damage could be caused.

- Do not damage, remove ground wire of the motor controller. If the ground wire falls off or breaks, please contact Yutong authorized service personnel immediately. Otherwise, vehicle insulation could have a fault, causing personal injury due to electric shock.
- If housing of the integrated control unit is deformed or broken due to impact, never touch the integrated control unit. Please contact Yutong authorized service personnel immediately to avoid electric shock accident. Never continue driving. Otherwise, there is a risk of accidents.

 Notice

- Please conduct maintenance in accordance with requirements specified in the *Maintenance Manual*.
- When the instrument displays “Motor system fault”, “Steering fault”, slow down in time, pull over and please contact Yutong authorized service personnel in time. Continuing to drive brings risk of accidents.
- Please keep the radiator clean and make sure its coolant is within normal range, avoid affecting heat dissipation of controller. Otherwise, over temperature could occur, resulting in vehicle breakdown.

Traction Battery Protection System



- The traction battery dry gas protection system consists of an inflatable module, a filter, a controller, a solenoid valve and corresponding pipelines and other components.
- The dry gas protection system maintains a dry air environment in the traction battery. The dry air environment can reduce the risk of condensation in the traction battery, thereby avoiding problems such as insulation failure of internal parts and

components. At the same time, it identifies the air tightness failure of the traction battery in advance through the pressure change of the traction battery, avoids the risk of water in the traction battery, and improves the safety of the traction battery.

Tips

- For vehicles that are parked for a period of time >12h, the protective effect of the gas protection system gradually weakens. After the parked vehicle is restarted, the protective effect of the gas protection system gradually recovers.
- In an area with a high ambient humidity, a small amount of water may flow out of the air filter during driving, which is normal.
- When the vehicle is charged, the electric air compressor will work, which is normal.

 Notice

The air dryer of the braking system must be regularly maintained and the filter element must be replaced in accordance with the requirements of the on-board *Maintenance Manual*, otherwise it will cause excessive gas humidity and the dry gas protection system will reduce the protection function.

Exterior cleaning

Preparations before vehicle cleaning

1. Stop the vehicle on a flat ground, shift to neutral (N) gear and pull up parking switch.
2. Turn off the ignition key and power handle switch.
3. Close the doors and windows. Keep the key well.

Preparations before vehicle cleaning

Periodic professional maintenance can help to preserve the value of your vehicle and prolong its service life. It is also one of the preconditions to obtain the warranty right to conduct periodic maintenance for the vehicle body surface and repair paint damages.

Frequent vehicle washing is the best way to protect vehicles from harmful environmental impacts. The time interval for cleaning

vehicles depends on the frequency of vehicle use, road conditions, storage location, season, climate conditions, environmental impacts, etc.

The longer time the insect body, bird droppings, resin, road dust, industrial dust, asphalt, coal ash, chemical salt or other corrosive deposits stay on the exterior (including cargo body and wheel cover area) is, the more serious the damages can be. Furthermore, high temperature and direct exposure to strong sunshine will worsen corrosion.

Therefore, when there are stains on the vehicle exterior, clean in time to protect the vehicle top coat and maintain a good driving vision.

Vehicle body cleaning

Manual cleaning requires a large quantity of clean water, and the

following methods are recommended:

- Soften dirt by soaking it first and then wash it off with water.
- Wipe the vehicle body evenly from top to bottom with a special vehicle washing sponge or vehicle washing cloth.
- Wash the vehicle body with clean water.
- Dry the vehicle body with clean cloth.
- Use a neutral detergent only if the stain is stubborn.

Danger

- When cleaning, measures shall be taken to prevent water from entering braking pipeline. In addition, take waterproof measures to protect the battery, electric control parts and so on. Otherwise, vehicle safety will be affected, leading to serious personal injury.
- Never wash high-voltage compartment door with

water. Please clean with air gun. Otherwise, the vehicle will operate abnormally, and the insulation will fail, resulting in electric shock or fire risk.

- When there is ponding on the ground, please clean in time. Otherwise, people may slip due to water or ice in winter, resulting in personal safety accidents.

Warning

- Never wash vehicle using a wash gun with a round nozzle or rotatory nozzle.
- Never flush air inlet compartment door joint or lubrication part with high pressure washer gun.
- Never use a high-pressure water gun to clean the air intake grille. When cleaning, you can use a damp cloth to wipe it.

- Never flush radiator and cooling fan blades directly with high pressure washer gun.
- Never directly use high-pressure water to wash the glass side seams and corner seams of the driver cabin to prevent the sprayed high-pressure water jets from penetrating into the vehicle.

Notice

- In winter, never directly flush water towards vehicle locks or door joints. Otherwise, they could be frozen.
- Never wipe the vehicle body surface with rough articles, so as to avoid scratching the paint film.
- Never flush frozen glass with hot water. Otherwise, the glass could burst.

Clean lights

Clean lamps with soap water and then fresh water. Do not wipe them with cloth.

Clean new energy components

Traction battery system, traction motor, steering motor, electric air compressor, electric defroster, integrated control unit, charger, charging socket, high-voltage cables and connectors and other high-voltage component can only be cleaned with air gun.

Danger

Never clean with water, alcohol or other organic solvents. Never wipe them with wet cloth, wet mop or alcohol and other organic solvents. Otherwise, abnormal vehicle operation, insulation failure, electric shock or a fire risk could be caused.

Repair vehicle body paint

Small areas of paint damage, such as scratches or stone bumps, shall be touched up immediately to prevent rust and damage from expanding. If rust appears, remove it completely. And then, apply anti-corrosive primer to this area and then top coat.

Clean locks

Remove ice, snow and dirt from lock body in time. Otherwise, lock core could be blocked or corroded, and the lock cannot be unlocked.

Clean the wheel

In order to keep good appearance of wheels for a long time, clean the wheels with special detergent regularly.

Notice

If the chemical salt and braking abrasive dust on wheels are not removed in time, metal may be

corroded, affecting wheel appearance and wheel strength.

Clean bottom of the vehicle

When there are obvious snow, snow melt salt, soil, etc. at the bottom of the vehicle, clean the vehicle in time after shutdown to protect the vehicle's bottom protective coating from erosion. If there is rust on the parts, it is necessary to repair them in time and perform anti-rust treatment to avoid rusting worsening on the components.

Notice

The damage of the protective coating as a result of vehicle operation is inevitable. Therefore, it is recommended to check the protective coating layer at

the bottom and chassis irregularly, and especially before and after cold seasons, repair them in time.

Clean the interior

Clean seat belts

Only well-functioning seat belts can ensure the safety of drivers and passengers!

- Keep the seat belt clean.
- Clean dirty seat belt with neutral liquid soap (1 L of water with 2 spoonfuls of neutral soap powder).
- Check the condition of the seat belt regularly.

Warning

- Do not remove the seat belt for cleaning. When a seat belt retracts, it must be dry.
- Never use chemicals to clean seat belts, as chemical cleaners will damage the fabric of the seat belts; it is

strictly prohibited for corrosive liquids to come into contact with seat belts.

- If the seat belt fabric, connectors, and buckle etc. are damaged, replace them.

Clean leather

The leather used in Yutong vehicle includes synthetic leather and natural leather. Maintenance and cleaning according to the requirements of the *Product Instructions* can effectively prolong its service life.

- Synthetic leather
- Clean the synthetic leather with a semi-dry cloth. If it is impossible to remove the dirt, clean with solvent-free plastic and protective agents only.
- Natural leather

Clean the interior

- General cleaning
- Remove the dirt on the leather surface with slightly wet pure cotton cloth or wool cloth.
- Stubborn stains

Wet the cloth with neutral soap liquid (dissolve two spoonfuls of neutral soap power in 1 L of water), and remove stubborn dirt with the cloth.

Use a cloth or facial tissue with good hygroscopicity to remove newly-sprayed water spots (such as coffee, tea, fruit juice and blood, etc.).

When removing freshly spilled oil stains (such as butter, salad oil, chocolate, etc.), if the stain has not yet penetrated the leather surface, use a rag with good hygroscopicity or paper towel, etc. to remove it.

Use special oil-removing spray to remove dried oil spots.

For special dirt spots, use dedicated scavenger to remove them (such as those caused by the ball pen, marking pen, nail polish, latex paint and shoeshine, etc.).

Notice

- Use special leather protective agent to service the leather every half a year.
- Do not park the vehicle under blazing sunlight for a long time, to avoid leather color fading. If it is inevitable to park the vehicle in the open air for a long time, cover the leather to avoid direct exposure to sunshine.
- Take care when cleaning. Do not saturate any part of the leather, and prevent water from entering pinholes

at joints. Otherwise, the leather will be damaged.

- Clean the leather every two to three months to remove new stains in time. Otherwise, the leather will be damaged.
- Remove new stains caused by the ball pen, ink, lipstick, shoeshine and so on in time.
- Sharp-edged articles of clothes, such as the zipper, rivet buttons, and belts with a sharp edge may leave scratches or marks on the leather surface.

- Fabrics
- Knitted fabric is mainly used in the seat cover, interior trimming and so on. Proper maintenance and cleaning of knitted fabrics can effectively extend their service life.
- General cleaning

- Use special detergent or soft sponge for cleaning.
- Use a piece of cloth or facial tissue with good hydroscopicity to remove new water stains on the seat as soon as possible.
- Stubborn stains
- Wet the cloth with neutral liquid soap and remove serious stains. After that, wipe it dry with a soft and dry cloth.

Notice

Avoid scratching fabric by sharp objects.

Cleaning interior trimming

If the vehicle is left for a long time without ventilation in hot and humid environment, it is easy to breed mold. Therefore, in the storage process, open windows and doors once every 2 weeks for ventilation and air circulation inside the vehicle. If the vehicle runs in rainy season or on hot and humid days in summer, clean

Clean the interior

and maintain the surface of the interior trimming once every 2 - 4 weeks. Clean with a clean white wet cloth. Have it dry naturally after cleaning. For stubborn stains, clean with detergent mentioned above and wipe with a white clean and wet cloth. Otherwise, there could be residual detergent.

When disinfecting in the driver cabin, hydrogen peroxide solution and other non-chlorine disinfectant can be used for spraying.

Notice

- When cleaning the electric heater, high-voltage cable, connectors and other high-voltage components, use the air gun. Never use organic solvent such as water, alcohol, to clean high-voltage components, or use wet cloth, wet mop or alcohol and other organic solvents to wipe such components;

otherwise, it will cause the abnormal operation of the vehicle and insulation failure, thus leading to electric shock or fire risk.

- Never wash electrical part area of the dashboard with water. Clean the area with air gun. Otherwise, the electrical devices could operate abnormally, causing a risk of fire.
- The surface discoloration and corrosion of stainless steel and chrome plated parts will be caused when chlorine-containing disinfectant is sprayed inside the driver cabin.

Clean driver zone and pedal area

Clean driver zone and pedal area with vacuum cleaner to prevent debris from obstructing pedal operation of driver.

 Danger

If there are sundries in the driver zone and pedal area, it will hinder the driver's proper operation of the pedal, thus causing serious traffic accidents.

Electrical system

Anti-theft alarm system

When the vehicle is locked, the anti-theft alarm system is automatically turned on.

- When the vehicle anti-theft alarm system is on and no keys are carried, if any door is opened, the system will sound an alarm and the turn signal lights will flash to prevent the vehicle from being stolen.
- When the anti-theft alarm system is activated, the vehicle can be unlocked using the key, and the anti-theft alarm will be automatically released after unlocking.

Notice

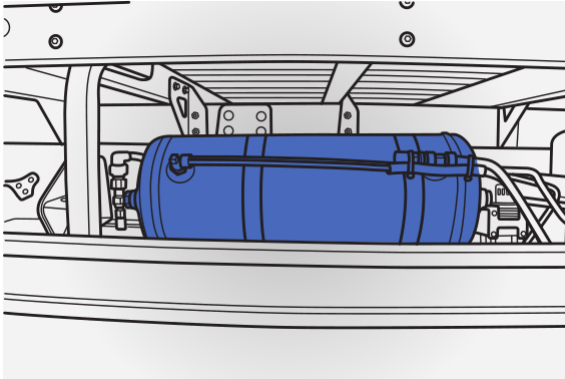
- If the anti-theft alarm is activated before the vehicle is

powered off, the anti-theft alarm system will be reactivated and sound the alarm when the vehicle is powered on again.

- Never modify the anti-theft alarm system in any way, otherwise it may cause the system to be faulty or fail.

Pneumatic System

Air reservoir maintenance



In order to ensure the safe operation of the air storage tank, it is very necessary to inspect and maintain the air storage tank regularly.

Routine maintenance

Appearance inspection:

- Check whether the air reservoir is installed firmly and whether there is any air leakage.
- Check the tank for cracks, deformation or other mechanical damage.
- Check whether the pressure gauge displays normally and whether there is any damage or leakage.

Drain valve (drain trap) operation:

- Discharge water from the air reservoir via the drain valve at the bottom of the air reservoir on a regular basis (7 days). In severely cold areas or areas with high humidity, it is recommended to discharge water daily.

Record the use condition:

Pneumatic System

- Record the time of each turning on/off and repair activity.

Clean the surrounding environment

- Make sure the area around the air storage tank is clean and free of oil, ponding or flammable materials.

Good ventilation:

- Make sure there is enough air circulation at the installation position to avoid excessive temperature affecting device performance.

Comply with the requirements of laws and regulations:

- Comply with all local laws, regulations and industry standards regarding the storage of compressed gases.

Interval maintenance

Clean the interior:

- Clean rust and other deposits from the inside of the tank periodically according to the manufacturer's recommendations or as needed.

Replace the sealing parts:

- Replace all rubber gaskets, O-rings or other sealing materials immediately at any signs of wear.

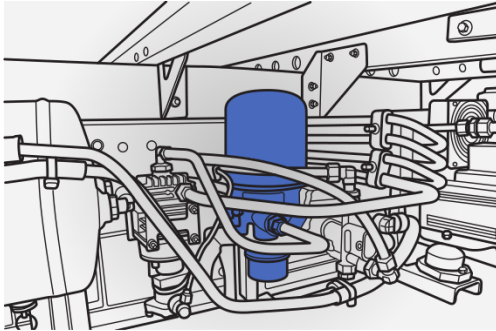
Pressure test:

- Under the guidance of Yutong authorized service personnel, perform compressive strength tests at specified time intervals to verify structural integrity.

Paint surface repair:

- If paint peeling occurs, apply anti-corrosion paint in time to protect the metal surface from corrosion.

Air dryer



- An air dryer is a device used to dry compressed air. Its function is to remove moisture and other impurities in the compressed air and provide dry, clean air to the brake.
- The adsorption dryer uses the adsorption effect of the desiccant to adsorb the moisture in the compressed air onto the desiccant, thereby achieving air drying.
- In addition to removing moisture, air dryers can also remove

other impurities in compressed air, such as oil mist, dust, etc.

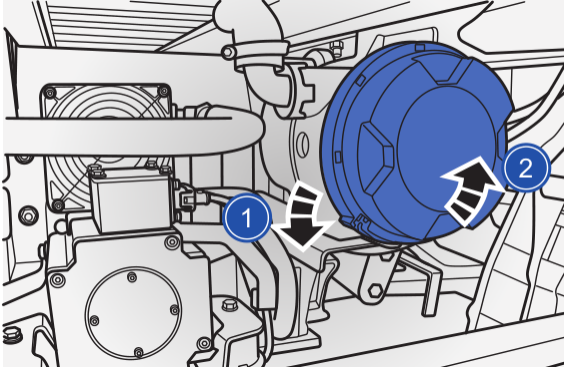
Air filter element

The air filter element is an important maintenance component that protects the compressor from debris and particulate matter. In order to ensure the normal operation of the compressor and extend its service life, the air filter element should be checked and replaced regularly.

Maintenance description

Replacement interval: 12 months or 90,000 km (based on the mileage or time, whichever comes first)

Replace the air filter element



1. Open the air filter element end cover bayonet.
2. After turning the end cover counterclockwise, remove the end cover.
3. Replace with a new air filter element.
4. Install the end cover, turn it clockwise and lock it.

Notice

- Never use filter elements not approved by Yutong, as this may result in reduced filtering effect.
- Check the inside of the air filter housing for any residue debris or dirt. If any, clean it with an appropriate detergent and then wipe it clean with a clean cloth.

Pressure, hose and connector

Warning

Excessive pressure may cause hoses to rupture, so never over-pressurize a pneumatic system.

Precautions for pipeline installation

Before assembling any pneumatic system, be sure to read and

understand the following precautions:

temperatures may damage sealing parts.

1. Check all pipes and hoses for dirt and foreign matter and flush them clean. All hose and pipe ends should be capped before preparing for installation.
2. All connections to the pump and motor should be kept closed or plugged before connectors are installed and hoses are connected.
3. When tightening pipe and hose connectors, do not over-tighten. It is often necessary to use two wrenches to properly tighten the pipeline and hose connector nuts to prevent damage to the connectors resulted from over-tightening.
4. Use labeled and sealed containers to fill pneumatic systems.
5. After the pneumatic system is fully connected, start the air compressor and follow the starting procedure.
6. Never install pneumatic components near welding areas; high

Routine Maintenance Items

Module	Maintenance items
Electrical system	Check the horn
	Check and clean the lamps
	Check the wiper
Vehicle body interior	Check the seat guide rail and bracket
	Check the seat belt
Vehicle body exterior	Check the driver cabin mounts and rear lock
	Check the side and rear protection, door and freight box door
	Check and clean interior and exterior of vehicle
	Dust and impurities, etc. on the condenser core

Module	Maintenance items
Vehicle body exterior	The air outlets on the dashboard are normal to prevent blockage by foreign objects and affect ventilation.

Initial Maintenance Items

Module	Maintenance items
Front axle	Check the kingpin
	Check the steering tie rod
	Inspect the wheel hub bearing
	Check the nut torque of steering knuckle arm and tie rod arm
	Check the toe-in and steering angle
Rear axle	Fasten the tightening bolts and nuts of axle shaft, brake and air chamber (for air brake)
	Check and clean the final reduction drive oil filler plug, oil drain plug, wheel hub oil filler plug and pinion oil seal
	Replace the lubricating oil of final reduction drive assembly and wheel end assembly

Module	Maintenance items
Rear axle	Check the wheel hub bearing unit
	Check the brake return and brake wedge assembly
Suspension assembly	Check the suspension rubber limit block
	Check the leaf spring bushing and lifting lug pin bushing
	Check the leaf spring
	Check the U-bolts and leaf spring pin bolts
	Check the shock absorber
Control system	Check and adjust the brake pedal shaft, lock nut, free clearance and brake light switch
Air braking system	Check the driver cabin brake pedal
	Check the high temperature hose of the air compressor

Initial Maintenance Items

Module	Maintenance items
Air braking system	Check the brake chamber hose
	Check the dryer, relay valve and quick release valve
	Check the air reservoir and drain valve
	Check the electronic parking actuator and connecting pipeline
Hydraulic braking system	Check the ABS valve, ECU and wiring harness
	Check the brake oil cup, filter element and brake fluid
	Check the brake hydraulic pipeline
	Check the electronic parking actuator as well as its wiring harness and cable
Steering system	Check the moving parts of the steering system (steering drive shaft, steering gear, steering gear bracket, pitman arm, steering drag link)
Vehicle body exterior	Check the central electric box and the rear sealed electric box

Module	Maintenance items
Vehicle body exterior	Check the low-voltage wiring harness in power compartment, battery compartment, electrical compartment, heater compartment and A/C panel
	Ground wire between the battery and the frame, the positive electrode power supply cable and high-voltage wire

Interval maintenance items

Module	Assembly category	Maintenance items	Interval: *1 month/*5000 km														
			3	6	9	1 2	1 5	1 8	2 1	2 4	2 7	3 0	3 3	3 6	3 9	4 2	4 5
Chassis	Steering gear	Replace the lubricating oil (for electric power assist steering gear)	40,000 km or 12 months														
	Suspension assembly	Fasten each component of the suspension and the fasteners of the			•			•			•			•			•

Module	Assembly category	Maintenance items	Interval: *1 month/*5000 km														
			3	6	9	1 2	1 5	1 8	2 1	2 4	2 7	3 0	3 3	3 6	3 9	4 2	4 5
Chassis	Suspension assembly	connection parts			●			●			●			●			●
	Brake control and pipeline	Replace the drying can of the brake	100,000 km or 12 months, it must be replaced if water or oil can be discharged from the drain valve of air reservoir, and recommended to be replaced before winter														
	Cooling system	Check and replace the coolant	240,000 km or 24 months														
	Front axle	Check the wheel hub and oil seal			○			○			○			○			○
		Inspect the			○			○			○			○			○

Interval maintenance items

Module	Assembly category	Maintenance items	Interval: *1 month/*5000 km														
			3	6	9	1 2	1 5	1 8	2 1	2 4	2 7	3 0	3 3	3 6	3 9	4 2	4 5
Chassis	Front axle	wheel hub bearing			○			○			○			○			○
		Inspect and fasten the tightening bolts and nuts of the tie rod arm, the steering knuckle arm, the brake chamber, the brake and the tie rod assembly,			○			○			○			○			○

Module	Assembly category	Maintenance items	Interval: *1 month/*5000 km															
			3	6	9	1 2	1 5	1 8	2 1	2 4	2 7	3 0	3 3	3 6	3 9	4 2	4 5	4 8
Chassis	Front axle	and check the toe-in			○			○			○			○			○	
		Check the brake pad/lining			○			○			○			○			○	
		Inspect the brake disc			○			○			○			○			○	
		Add grease to the kingpin and camshaft (every 40,000 km)			●			●			●			●			●	
	Rear axle	Fasten the			○			○			○			○			○	

Interval maintenance items

Module	Assembly category	Maintenance items	Interval: *1 month/*5000 km															
			3	6	9	1 2	1 5	1 8	2 1	2 4	2 7	3 0	3 3	3 6	3 9	4 2	4 5	4 8
Chassis	Rear axle	connecting bolts			○			○			○			○			○	
		Fasten the parking brake tightening nuts and flange nuts		○		○		○		○		○		○			○	
		Check and clean the final reduction drive assembly			○			○			○			○			○	
		Check the brake pad/lining, brake			○			○			○			○			○	

Module	Assembly category	Maintenance items	Interval: *1 month/*5000 km														
			3	6	9	1 2	1 5	1 8	2 1	2 4	2 7	3 0	3 3	3 6	3 9	4 2	4 5
Chassis	Rear axle	return, brake wedge assembly, and sealing ring			○			○			○			○			○
		Replace the lubricating oil of final reduction drive assembly and wheel end assembly	Ordinary gear oil needs to be replaced after 6 months or 60,000 km (need to replace after the initial maintenance of 10,000 km). Long-term gear oil maintenance interval is 100,000 km or 24 months (no need to replace after the initial maintenance of 10,000 km), whichever comes first														
		Check the wheel			○			○			○			○			○

Interval maintenance items

Module	Assembly category	Maintenance items	Interval: *1 month/*5000 km															
			3	6	9	1 2	1 5	1 8	2 1	2 4	2 7	3 0	3 3	3 6	3 9	4 2	4 5	4 8
Chassis	Rear axle	hub bearing unit			○			○			○			○			○	
	Wheels and Tires	Tire transposition	Perform tire transposition at an interval of every 20,000 km															
New Energy	Traction motor	Check and fasten the three-phase connecting wire terminals	Every 480,000 km or 48 months															
		Check and fasten the three-phase wire	Every 480,000 km or 48 months															

Module	Assembly category	Maintenance items	Interval: *1 month/*5000 km														
			3	6	9	1	1	1	2	2	2	3	3	3	3	4	4
						2	5	8	1	4	7	0	3	6	9	2	5
New Energy	Traction motor	through hole connector	Every 480,000 km or 48 months														
		Replace the traction motor oil seal	Every 60 months														
		Inspect the front and rear bearings of the traction motor	Every 60 months														
		Clean and replace the vent	Every 240,000 km or 24 months														

Interval maintenance items

Module	Assembly category	Maintenance items	Interval: *1 month/*5000 km														
			3	6	9	1	1	1	2	2	2	3	3	3	3	4	4
						2	5	8	1	4	7	0	3	6	9	2	5
New Energy	Traction motor	valve	Every 240,000 km or 24 months														
		Check and clean the traction motor junction box	Every 240,000 km or 24 months														
	Electric air compressor	Replace the air filter of the electric air compressor				○				○				○			○
		Check the appearance of	Every 12 months or 60,000 km														

Module	Assembly category	Maintenance items	Interval: *1 month/*5000 km														
			3	6	9	1	1	1	2	2	2	3	3	3	3	4	4
						2	5	8	1	4	7	0	3	6	9	2	5
New Energy	Electric air compressor	the air compressor, mount insulator fixing bolt and radiator fan	Every 12 months or 60,000 km														
		Fasten the three-phase wire tightening bolts for the electric air compressor	Every 24 months or 120,000 km														
		Check and	Every 12 months or 120,000 km														

Interval maintenance items

Module	Assembly category	Maintenance items	Interval: *1 month/*5000 km														
			3	6	9	1 2	1 5	1 8	2 1	2 4	2 7	3 0	3 3	3 6	3 9	4 2	4 5
New Energy	Electric air compressor	replace compressor mount insulator	Every 12 months or 120,000 km														
	Traction battery	Inspect the traction battery air tightness	Every 48 months														
		Check the traction battery	Every 24 months														
		Check the fixing bolts of traction battery and	Every 24 months														

Module	Assembly category	Maintenance items	Interval: *1 month/*5000 km														
			3	6	9	1	1	1	2	2	2	3	3	3	3	4	4
						2	5	8	1	4	7	0	3	6	9	2	5
New Energy	Traction battery	high-voltage connectors	Every 24 months														
		Traction battery balance maintenance	For normal operating vehicles: Conduct maintenance once every 12 months; for stand-by operating vehicles and vehicles not used for a long time: Perform maintenance once every 3 months														
		Inspect the appearance of battery protective plate	Every 12 months														
	Charging	Check the	Every 120,000 km or 12 months														

Interval maintenance items

Module	Assembly category	Maintenance items	Interval: *1 month/*5000 km														
			3	6	9	1 2	1 5	1 8	2 1	2 4	2 7	3 0	3 3	3 6	3 9	4 2	4 5
New Energy	socket (European standard)	charging conductive contact parts	Every 120,000 km or 12 months														
	Dry gas protection system	Replace the filter element of the air filter	Every 12 months														
		Check the appearance of the dry gas protection system	Every 12 months														

Module	Assembly category	Maintenance items	Interval: *1 month/*5000 km														
			3	6	9	1	1	1	2	2	2	3	3	3	3	4	4
						2	5	8	1	4	7	0	3	6	9	2	5
New Energy	Dry gas protection system	controller and solenoid valve	Every 12 months														
		Check the fasteners and connectors of the controller, filter and solenoid valve	Every 12 months														
		Check the air pipelines	Every 12 months														
		Filter drain port	Every 12 months														

Interval maintenance items

Module	Assembly category	Maintenance items	Interval: *1 month/*5000 km														
			3	6	9	1 2	1 5	1 8	2 1	2 4	2 7	3 0	3 3	3 6	3 9	4 2	4 5
New Energy	High-voltage cable	Check the high-voltage wiring harness	Every 480,000 km or 48 months														
Electric al system	Battery	Check the distribution box, low-voltage wiring harness, battery power supply cable and ground wire				○				○			○				○
Vehicle body interior	Safety	Check the fire	Every 12 months														

Module	Assembly category	Maintenance items	Interval: *1 month/*5000 km															
			3	6	9	1	1	1	2	2	2	3	3	3	3	4	4	4
			3	6	9	2	5	8	1	4	7	0	3	6	9	2	5	8
Vehicle body interior	equipment	extinguisher	(The cylinder and head should be subject to a water pressure test every 5 years or before each filling)															
	Seats	Check the driver seat bottom frame and add grease				○				○				○			○	
Vehicle body exterior	Freight box	Check the side and rear protection, door and freight box door			○			○			○			○			○	

Interval maintenance items

Module	Assembly category	Maintenance items	Interval: *1 month/*5000 km														
			3	6	9	1 2	1 5	1 8	2 1	2 4	2 7	3 0	3 3	3 6	3 9	4 2	4 5
Vehicle body exterior	Freight box	Re-tighten the freight box U-bolts and bracing	Every 12 months or 60,000 km														
	Air Conditioning System	Check the A/C refrigerant											○				
		Clean the A/C filter element	Every 12 months														

○: Check

●: Check, add, fasten or replace, etc.

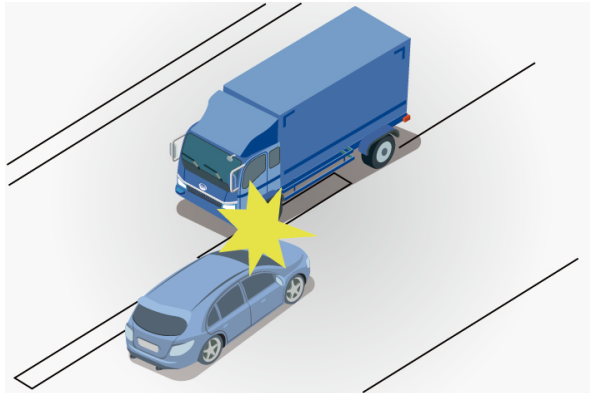
 Notice

Mileage or time, whichever comes first. For the same interval, maintenance items corresponding to either driving time or driving mileage are the same.

Emergency Treatment against Collision

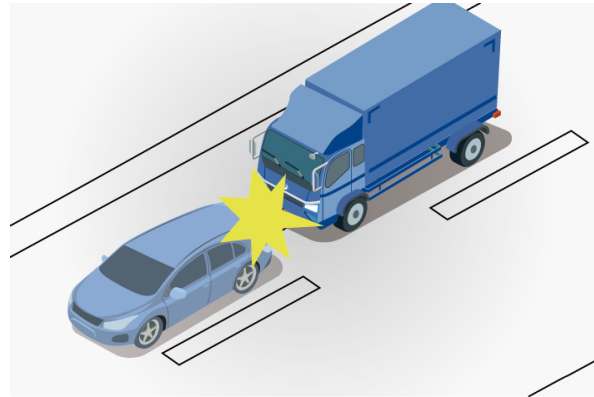
Purpose of emergency treatment against vehicle collision is to reduce damage caused by collision. If the driving environment is limited, please adopt other more appropriate emergency treatments.

Emergency treatment against head-on collision



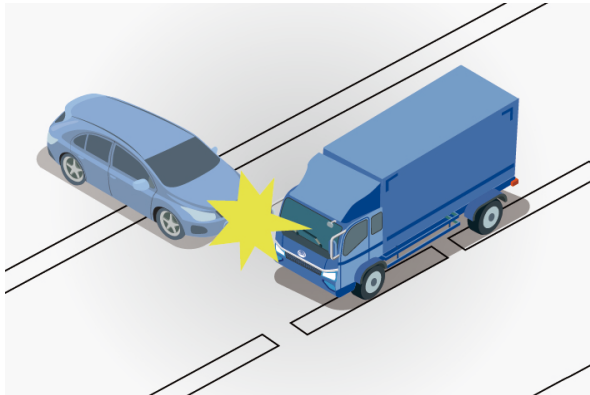
1. Depress the brake pedal quickly.
2. If the area impacted is not on the driver side, the driver shall extend his/her legs straight forward, incline his/her body backward and raise his/her head backward to maintain body balance. This can prevent his/her body from hitting the steering wheel and the windshield.

Emergency treatment of rear collision

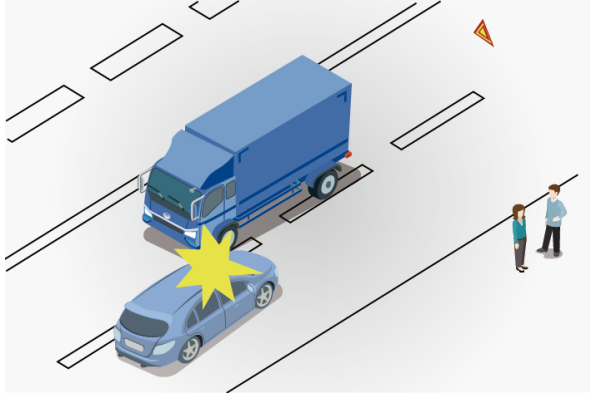


- If the vehicle is parked and encounters a rear collision, the driver should release the brake to reduce the impact force, and then depress the brake pedal to stabilize the vehicle body. a
- If the vehicle is driving and encounters a rear collision, the driver should stabilize the steering wheel, and then depress the brake pedal to stabilize the vehicle body.
- When a collision is about to occur in the front of the vehicle body, turn the steering wheel in the driving direction of the other vehicle as the case may be to turn the frontal collision into a scratch to reduce the strength of the collision.
- When a collision is about to occur at the rear of the vehicle body, turn the steering wheel in a direction that is opposite to the driving direction of the opponent's vehicle as the case may be to turn a front collision into a scratch to reduce the strength of the collision.
- After the collision, depress the brake pedal in time to stabilize vehicle body.

Side collision



Emergency treatment after collision



- The people in the vehicle shall immediately evacuate to a safe area.
- Power off the vehicle.
- Set up a warning sign.
- Contact Yutong authorized service personnel.

⚠ Warning

- Nobody is allowed to stay in the vehicle.
- Never handle abnormal high-voltage components and continue using the vehicle without permission.
- Never touch the traction battery coolant. If the skin comes in contact with the traction battery coolant, immediately rinse the skin with plenty of water for at least 10min and seek medical attention immediately.
- After the vehicle collides, please eliminate the fault before driving.

i Notice

- If chassis steering mechanism is impacted, stop immediately and check. Otherwise, there is a risk of steering failure.
- When the vehicle smokes or catches fire, it should be

dealt with in accordance with the emergency method of vehicle fire.

- Predictive driving can reduce risk of collision. The driver shall keep away from a dangerous area or slow down in advance.

Emergency treatment against brake failure

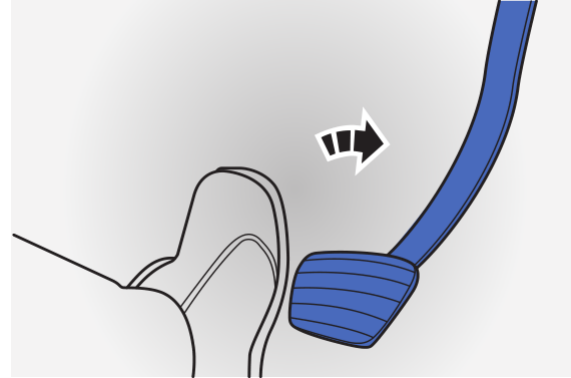
Emergency measures for braking failure

1. Turn on emergency lamps (emergency flashers), release accelerator pedal to control the vehicle to drive along the road.
2. Slow down by the regenerative brake function.
3. When the vehicle tends to stop, pull the parking switch to brake, stop and shut down.
4. Evacuate the persons from the vehicle to a safe area and set up warning signs.

Warning

- Nobody is allowed to stay in the vehicle.
- Never continue driving after the brake fails.

Preventive measures for braking failure

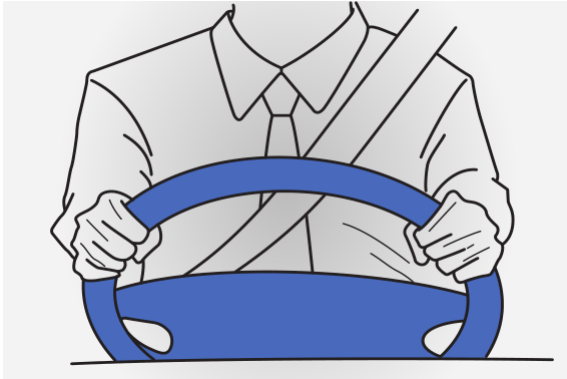


- Slowly depress the brake pedal before starting to confirm that the braking effect is normal.
- Depress the brake pedal before uphill/downhill to check that the braking effect is normal.
- After wading, lightly depress the brake pedal several times to remove water stains.
- If it is found that the brake pedal is spongy or soft, and the

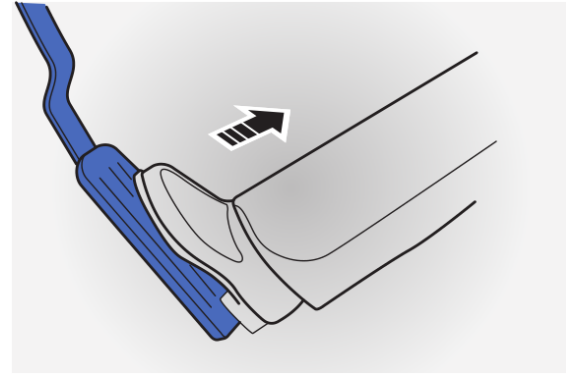
brake function decays, immediately stop and check.

- Perform regular maintenance of the braking system.

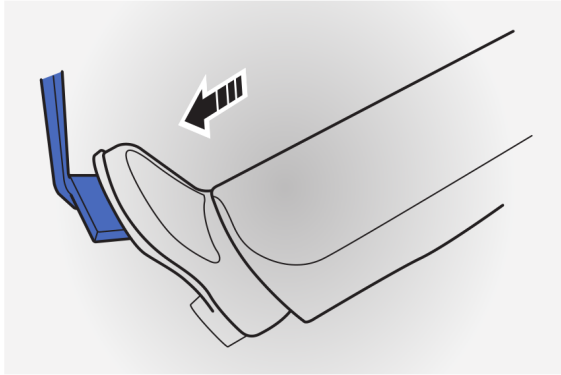
Emergency measures after tire burst



1. Hold the steering wheel firmly with both hands to maintain driving direction of the vehicle. If the direction deviates, correct slightly.



2. Release the accelerator pedal slowly.



3. Depress the brake pedal slightly to slow down evenly.

⚠ Warning

Never depress the brake pedal violently, otherwise, there is a risk of rollover.

4. Turn on the turn signal lights and pull over.
5. Turn on emergency lamps (emergency flasher), and set up

warning signs.

⚠ Warning

Set up the warning signs to remind other vehicles.
Otherwise, collisions may occur.

6. Evacuate passengers in the vehicle.

⚠ Warning

- People are not allowed to stay in the vehicle.
- Never drive after a tire burst.

Preventive measures for tire burst

- Use the tires strictly according to the instructions.
- When driving the vehicle, avoid passing curbs, stone edges or other obstacles with sharp edges.
- Check the tire statuses such as pressure, appearance etc.

before driving and after parking, deal with abnormal situation in time.

- On long downhill roads, make full use of regenerative braking.

 Warning

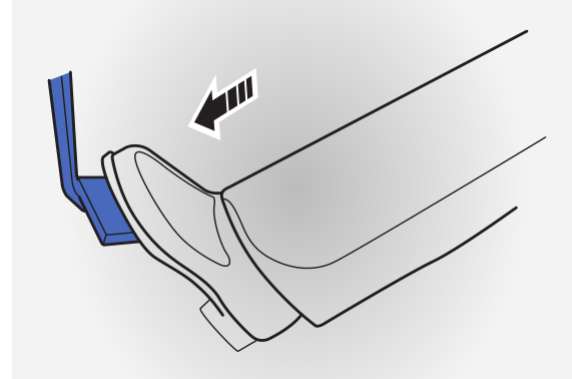
If the brake pedal is depressed for a long time, the tire temperature will rise and there is a risk of tire burst.

Emergency treatment for emergency avoidance

When driving at a low speed and encountering an obstacle that appears suddenly, the driver should take emergency avoidance to avoid a collision.

Handling for emergency avoidance

1. Depress the brake pedal to decelerate.



Prompt

Slowdown can increase the controllability of the vehicle.

2. Turn the steering wheel slightly to avoid, adjust the driving direction after avoidance, and stabilize the vehicle.

 Warning

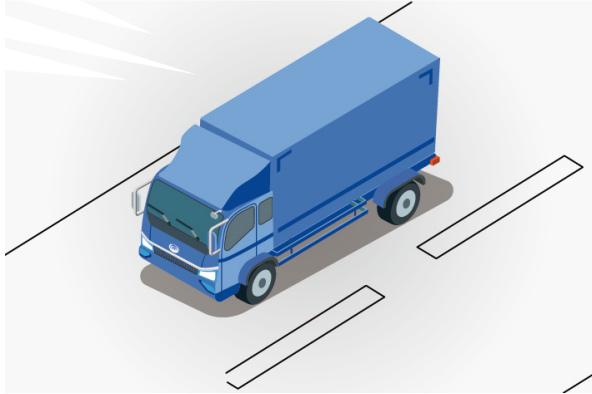
Handle emergency avoidance with care as appropriate to minimize injury.

 Notice

- There is a risk of rollover in case of obstacle avoidance at a high speed.
- Check if there is any obstacle in the direction to avoid. If any, there is a risk of collision.

Emergency treatment against vehicle fire

Evacuate passengers in the vehicle



1. Pull over and shut down the vehicle, pull up parking switch.

Notice

Pay attention to checking whether surrounding

environment is safe. If the vehicle is near flammable and explosive site, please keep away.



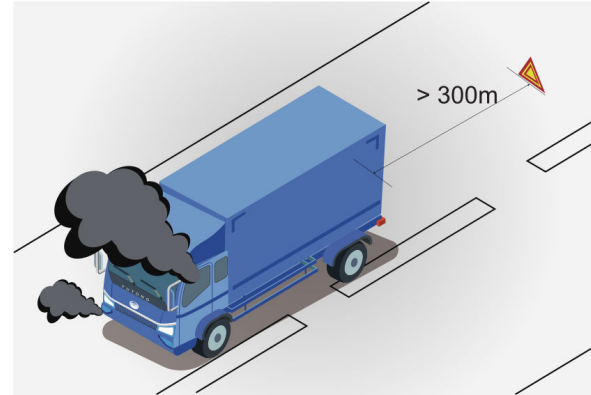
2. Open the doors, and loudly remind passengers to escape in an orderly manner.

 Warning

Keep calm, cover the mouth and nose with wet cloth, control breathing, and escape quickly.

 Notice

- Fire extinguisher cylinders or other hard objects can be used to break the window glass to escape.
- Observe whether there are sleeping personnel in the vehicle. If any, wake them up to escape in time.



3. After escaping, observe the environment outside the vehicle and evacuate passengers more than 300 m from the vehicle in the upwind direction.

4. Call the emergency/fire services and the police and set warning signs as appropriate.

Danger

- Personnel are strictly prohibited to approach the fire, otherwise they may be burned.
- When a vehicle catches fire, lots of heavy smoke will be produced. If a vehicle catches fire in underground garage, workshop, tunnels and other places, evacuate once get off. Otherwise, they may be injured or fainted by the heavy smoke.

5. After escaping, in the condition that the safety of personnel is ensured, turn off the power handle switch.

Emergency Treatment against Steering Failure

Steering failure means that the steering wheel cannot be used to control vehicle direction.

Emergency Treatment against Steering Failure

- If the vehicle drives straight along the road
- 1. Turn on emergency lamps (emergency flashers).
- 2. Release the accelerator pedal.
- 3. Gently depress the brake pedal to brake.
- 4. After stopping, pull up parking switch.
- 5. Evacuate passengers inside and set up warning signs.

Warning

Set up the warning signs to remind other vehicles.

Otherwise, collisions may occur.

- If the vehicle deviates from the road
- 1. In accordance with the actual condition, decelerate the vehicle by means of the parking brake, auxiliary brake and brake pedal, etc.

Warning

1. Never depress brake pedal sharply. Otherwise the vehicle may roll over.
2. Turn on emergency lamps (emergency flashers).
3. After stopping, pull up parking switch.
4. Evacuate passengers inside and set up warning signs.

Danger

- People are not allowed to stay in the vehicle.
- Never drive after the steering fails.

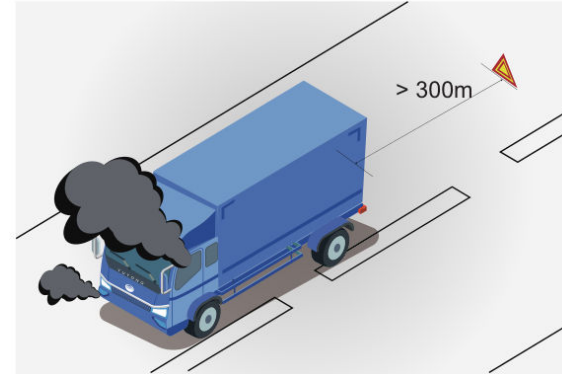
Preventive measures against steering failure

- Turn the steering wheel before driving to ensure that the vehicle has good steering performance. Turn on emergency lamps (emergency flashers).
- When driving, in case of understeer or oversteer, immediately stop at a safe place to check.
- Avoid driving on slippery roads. Otherwise, the vehicle may slip and result in steering failure.

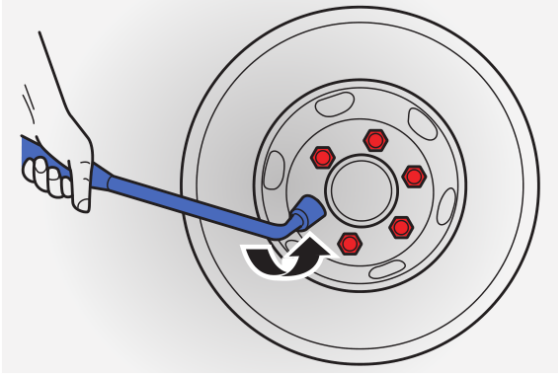
Emergency treatment for tire replacement

Remove the tire

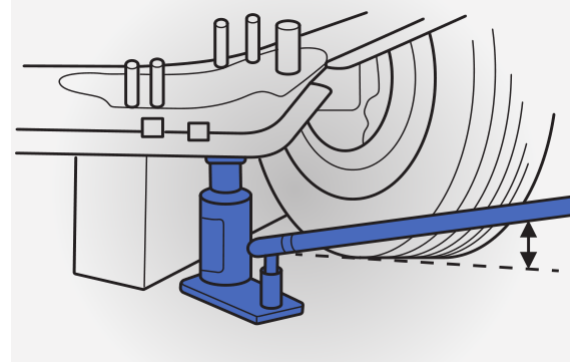
1. Park the vehicle in a flat, firm and non-tilting position, pull the parking switch, and use the stopper.
2. Turn on the emergency lamps (emergency flashers). All passengers get off the vehicle to a safe area, such as behind the safety guardrail.



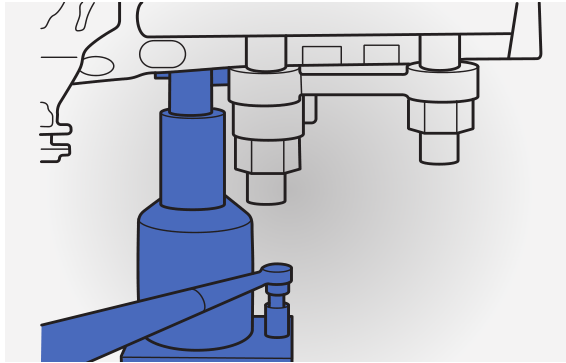
3. Place warning signs or flashing signs.



4. Use a special wrench to unscrew the wheel nut counterclockwise by about one turn.



- Diagram of placement position of the jack under the front axle



- Diagram of placement position of the jack under the rear axle

5. Put the jack at the position shown in the figure. Add a non-slip mat under the jack on the slippery road.

6. Lift the vehicle, use a hard object of the same height to support the axle, and raise the jack until the wheels are slightly off the ground.

7. Loosen the wheel nuts and remove the wheel.

⚠ Warning

- Failure to set up warning signs or reflective signs will affect the safe driving of other vehicles.
- If the jack is not fixed, there is a risk of slipping at any time.
- The vehicle is only supported by a jack. Never stand under or around the vehicle to avoid injury caused by vehicle falling.
- To remove the wheel nuts, it is necessary to stand on the end of the socket wrench and apply force, press the vehicle body by hand and stand firm.

Install a tire

- Install the tire in the direction indicated by the arrow on the side

of the tire.

- Tighten the wheel nuts to the required torque diagonally in three times.



Danger

Use the tire whose type and size meet the vehicle requirements. Follow the load capacity and speed index requirements of the tire. Otherwise, a safety accident may occur.



Warning

If conditions are limited and the wheel have to be installed in direction opposite to rotation direction, be sure to drive carefully. In order to fully utilize all advantages of a tire, replace the tire that is installed in

a reversed direction as soon as possible, so as to make sure that the rotating direction of all tires meets the requirements.



Notice

- When replacing the tire, the tire specification, the load bearing capacity and the speed class meet the requirements for tires.
- The wheel bolts must be clean and the tire nuts should be easily turned. When replace a wheel, if the wheel nuts are found to be corroded or difficult to turn, or if they cannot be tightened to specified torque, replace the nuts.

Inflate

After replacing the tire, check the tire pressure, if it does not meet the tire pressure requirements in technical specifications, add it.

 Warning

- Too high a tire pressure will lengthen the brake distance and increase the risk.
- Too high or too low tire pressure increases the risk of tire burst.

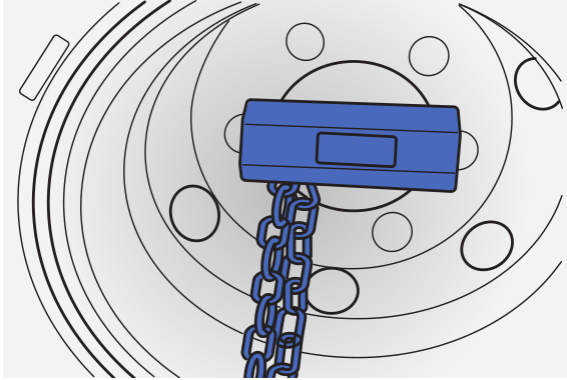
 Notice

- If the tire inflation pressure is too high or too low, the service life of the tire will be shortened.
- Too low a tire inflation pressure will increase energy consumption.

- Check the tightening torque of wheel bolts and nuts with a torque wrench.
- The replaced new tires do not have the best adhesive ability. The vehicle speed of the first 500km shall not be higher than 40km/h to avoid affecting the service life of the tires.
- Slow down when passing speed bumps or uneven roads.
- Friction between the tire side and a protruding obstacle is likely to cause tire bulge, leading to tire burst.

Use of spare tire

After installing the tire

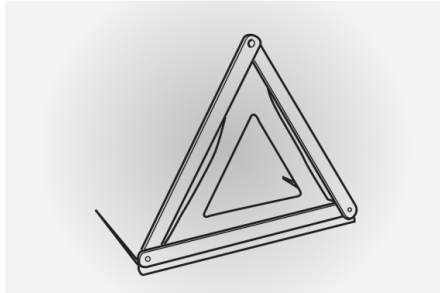


Notice

If the spare tire lifter has not been used for a long time, the gears may be stuck by sand/stone. It is recommended that sand/stone shall be removed before operation. Do not operate the lifter violently.

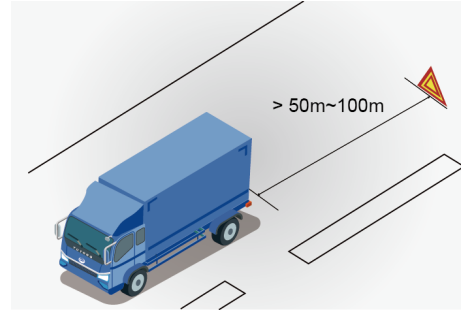
- When using a spare tire for replacement, make sure the size and structure of the spare tire is identical to the tire to be replaced and fix the newly installed tire properly. Fix the replaced tire in the original way.
- The spare tire lifter is fixed with double nuts underneath, loosen the M12 double nuts underneath the bracket, and then shake the crowbar to lower the spare tire slowly.

Warning Triangle



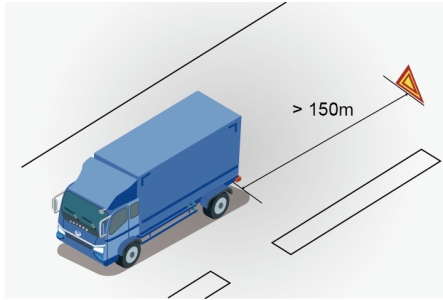
The warning triangle is a passive reflector made of plastic reflective material, which means it does not emit light by itself and must be illuminated by a luminous object to reflect light. If the vehicle breaks down and needs to stop on the road, use the reflective properties of the warning triangle to remind vehicles behind the vehicle to give way to avoid a secondary accident.

Use of the warning triangle

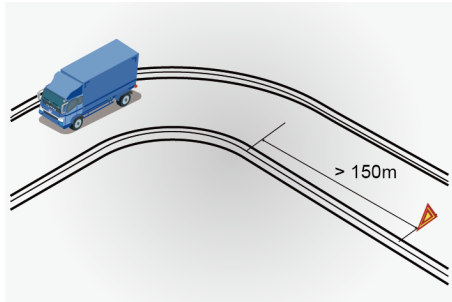


When a fault occurs during daytime driving, if the vehicle needs to be parked on the ordinary road, a warning triangle should be placed in the lane, 50m to 100m away from the vehicle in the direction of oncoming vehicles.

Warning Triangle



When placing a warning triangle on a highway, the distance from the vehicle should be greater than 150 m.



When placing a warning triangle at a turn, the warning triangle should be placed more than 150 m before entering the turn.

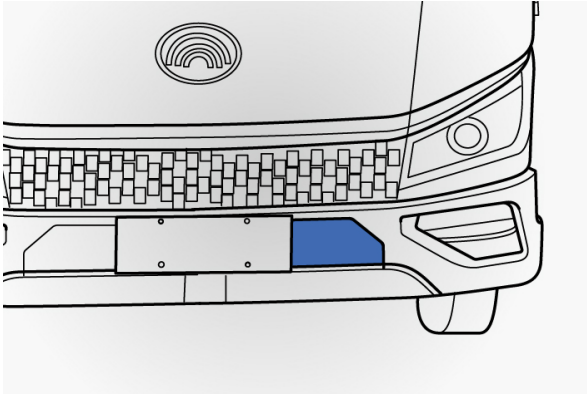
Notice

At night or under poor lighting conditions, the distance shall be increased accordingly. The reflective surface faces the direction of the oncoming vehicles. If this requirement conflicts with traffic laws, the traffic laws shall prevail.

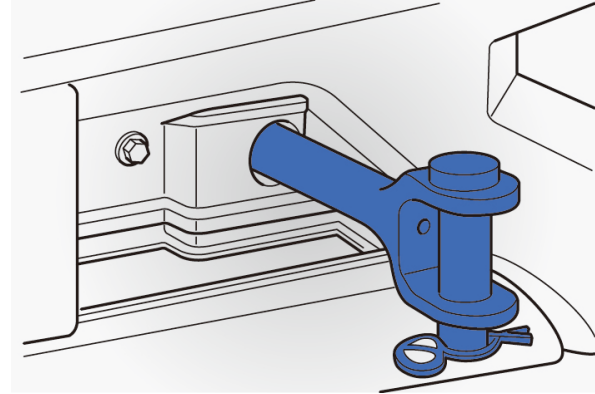
Transporting device

Front transporting device

1. Take the towing hook drag link out of the on-board tools.

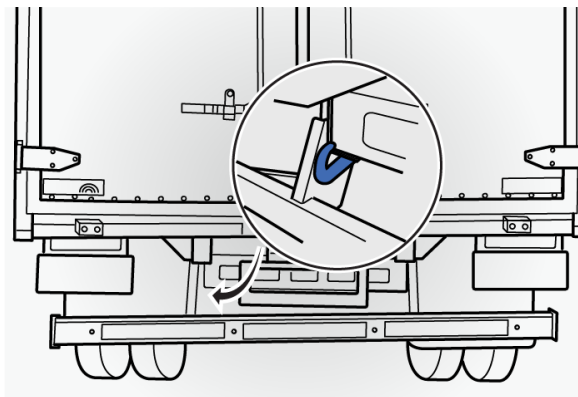


2. Open the front bumper left side cover plate.



3. Install the towing hook on the front towing hook bracket at the front end of the girder on the left side of the frame with a threaded connection.
4. After tightening clockwise, make the pin roll vertical.
5. Start towing after installing the towing rope or towing bar.

Rear transporting device



The rear towing hook is located on the left side of the rear of the frame. Start towing after installing the towing rope or towing bar.

Towing rope and towing bar

1. The towing connecting part may be towing bar or towing rope.
2. The towing rope shall be elastic to protect both vehicles.

Therefore, it is better to use a rope with man-made fibers or

made of similar elastic materials.

3. It is only allowed that the towing rope or towing bar is connected to the towing hook assembly used for towing vehicle.

Important information for driver on towing vehicle

- When using a towing rope for towing, keep a distance of 4-10 m between vehicles.
- Do not start to drive until the towing rope is tensioned.
- The towing speed must not exceed 30km/h;
- For the towing direction, during starting or towing, the angle between the towing rope/towing bar and the longitudinal centerline of the towed vehicle shall be $\leq 35^\circ$. During driving, the towing vehicle shall be parallel to the towed vehicle and move in straight line, which is good to prolonging the service life of vehicle parts and components. Never tow the vehicle at a

large angle or by pulling transversely.

Precautions

For the preparation before starting, disconnect the motor three-phase line from the motor controller interface to avoid damage to the motor controller. Proceed as follows:

1. Turn off the ignition key, remove the key and have it kept by the operator;
2. Turn off the power handle switch.
3. Unplug the manual service disconnect on the traction battery and allow the vehicle to rest for 15min.
4. Disconnect the U, V and W three-phase wires at the motor controller end and protect them with insulating tape.
5. When starting, the towed vehicle is in neutral gear.
6. Before starting, check that the braking system of the towed vehicle is in good order and the braking performance is

effective.

7. If the towed vehicle's braking or steering system is failed for any reason, never tow the vehicle.

Notice

The towing rope must be always tensioned.

Towing method

- When towing, the driver shall be familiar with basic information of the towing vehicle, must not perform emergency starting or braking, and shall be familiar with the special requirements of the towing process. Do not start or tow the vehicle if the driver is not trained or does not understand the vehicle performance.
- When towing, always pay attention to adjust the driving method or operating habits according to road conditions to avoid abnormal pulling force and impact load. Towing a vehicle on

roads other than hard pavement may cause an overloading danger.

Notice

- Please observe the local laws and regulations.
- When towing, the emergency flasher of the towing vehicle and the towed vehicle shall be turned on.
- If a vehicle cannot be towed normally, the vehicle must be carried by a special transposition vehicle or trailer.

Fireproofing Facilities

The fireproofing facilities supplied with the vehicle can effectively extinguish the incipient fire to minimize damage and loss.

Dry powder fire extinguisher for vehicles

It is located in driver cabin, which is used to extinguish incipient fire of A, B, C and E categories. Its effective discharge range is 2 to 3 m.

Fire category	Meaning
A	Fire caused by solid material
B	Fire caused by flammable liquid
C	Fire caused by flammable gas
E	Fire caused by ordinary electrical

Fire category	Meaning
E	appliance



Notice

- Never use a dry powder fire extinguisher beyond its discharge range. Otherwise, fire extinguishing effect may not be achieved.
- Discharge time of a fire extinguisher is limited.

Discharging the agent in the fire extinguisher aimlessly may result in failure to put the fire out.

Injection duration of fire extinguishers of various specifications is shown in the table below:

Model	Effective discharge time
1kg	8s to 10s
2kg	8s to 16s
4kg	13s to 26s
5kg	13s to 26s

Use method



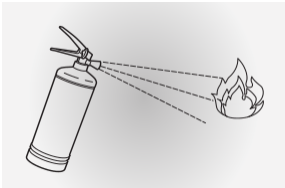
1. Lift a fire extinguisher.



2. Shake the fire extinguisher up and down.



3. Pull out the safety pin.

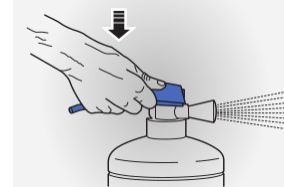


4. Stand in upwind position 2-3m away from the fire, and then aim the nozzle at the flame root.

⚠ Warning

Fire extinguishing personnel must not stand in

downwind position. Otherwise there is a risk of choking or scalding.



5. Press the handle to discharge the agent in the fire extinguisher to fight the fire.

⚠ Warning

- Never have a fire extinguisher discharge toward person.
- If the dry powder enters eyes, flush with plenty of water not less than 30min and seek medical advice

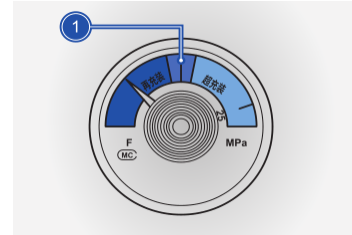
immediately.

Notice

When using a fire extinguisher, never make it upside down. Otherwise, the fire extinguisher cannot discharge dry powder, resulting in failure of fire extinguishing function.

Daily check

- Check the date of expiry on the fire extinguisher cylinder and replace it immediately if the expiry date is exceeded.



- Check whether the pressure of the fire extinguisher is normal ( 1 is the normal position). If not, replace the fire extinguisher immediately.
- Check whether the nozzle and the rubber tube are cracking and aging. If any, replace at once.

Other facilities and check

Check whether the fire retardant and fireproofing foam are shed, damaged, or corroded.

Warning

Once fireproofing facilities fail, replace or repair them in time. Otherwise, these failed facilities could not be used in case of a fire.

Vehicle out of power

When the handle switch is turned on or the ENGINE START STOP switch is pressed to power on, any electrical parts in the vehicle will not work.

Fault diagnosis	Simple Treatment
The power handle switch is not turned on or is damaged	Turn the switch to the ON position. Replace it if damaged
Vbat fuse in electric box is blown	Replace the fuse with a new one of the same specification
The battery cable at the battery terminal is loose or poorly connected	Tighten again
Wire connected to power handle switch connector becomes loose or is in poor contact with the connector	Tighten again
The battery is depleted	Recharge or replace the battery
If the faults are not solved by methods mentioned	Contact Yutong authorized service personnel for repair

Fault diagnosis	Simple Treatment
above,	Contact Yutong authorized service personnel for repair

Charge the battery

If the vehicle cannot be started due to battery undervoltage, contact Yutong authorized service personnel to start handle.

Replace the battery

If you need to replace the battery, please contact Yutong authorized service personnel in time. Never operate by yourself.

** Notice**

Batteries are corrosive. If the clearance lamps, parking lamps, license plate light and roof lamp do not come on, please do not disassemble or repair the batteries without permission.

Fault of Lamps

Fault information	Fault diagnosis	Simple Treatment
The turn signal light and the turn indicator on the combination instrument do not come on.	Press the turn signal light switch, and the turn signal light doesn't come on	Contact Yutong authorized service personnel for repair
The flashing frequency of turn signal lights is abnormal	The turn signal light is damaged	Contact Yutong authorized service personnel to replace the bulb with that of the same specifications
When turning on the headlight high beam or low beam, some or all lights don't come on	The headlight bulb is damaged	Contact Yutong authorized service personnel to replace with another bulb of the same power
	The high beam and low beam relays are damaged	Replace the relay with a new one of the same specifications
	The high beam and low beam fuses are damaged	Replace the fuse with a new one of the same specifications

Fault information	Fault diagnosis	Simple Treatment
When turning on the headlight high beam or low beam, some or all lights don't come on	If the fault cannot be solved	Contact Yutong authorized service personnel for repair
The brake lamp doesn't light up	The brake light is damaged	Contact Yutong authorized service personnel to replace the bulb with a new one of the same specifications
	Brake light relay is damaged	Replace the relay with a new one of the same specifications
	Brake light fuse is damaged	Replace the fuse with a new one of the same specifications
	If the fault cannot be solved	Contact Yutong authorized service personnel for repair
The fog lamp doesn't come on	The fog lamp relay is damaged	Replace the relay with a new one of the same specifications

Fault of Lamps

Fault information	Fault diagnosis	Simple Treatment
The fog lamp doesn't come on	The fog lamp fuse is damaged	Replace the fuse with a new one of the same specifications
The reverse lights do not turn on	The reverse light is damaged	Contact Yutong authorized service personnel to replace the bulb with that of the same specifications
	Reverse light relay is damaged	Replace the relay with a new one of the same specifications
	The reverse light fuse is damaged	Replace the fuse with a new one of the same specifications
The position light does not come on	The position lights do not come on or flash abnormally	Contact Yutong authorized service personnel for repair
	The position light fuse is damaged	Replace the fuse with a new one of the same specifications
	The clearance lamp, parking	Contact Yutong authorized service personnel to replace the

Fault information	Fault diagnosis	Simple Treatment
The clearance lamps, license plate lights and roof lamps do not come on	lamp, license plate light and roof lamp are damaged	bulb with that of the same specifications
	Relays of the clearance lamps, license plate lights and roof lamps are damaged	Replace the relay with a new one of the same specifications
	Fuses of the clearance lamps, license plate lights and roof lamps are damaged	Replace the fuse with a new one of the same specifications
	If the fault cannot be solved	Contact Yutong authorized service personnel for repair
The daytime running lights do not come on or partially come on	The daytime running light relay is damaged	Replace the relay with a new one of the same specifications
	The daytime running light fuse	Replace the fuse with a new one of the same specifications

Fault of Lamps

Fault information	Fault diagnosis	Simple Treatment
The daytime running lights do not come on or partially come on	is damaged	Replace the fuse with a new one of the same specifications
	The light source of the daytime running light is damaged	Contact Yutong authorized service personnel for repair

Warning

- If the bulb breaks, conduct protective measures to prevent cuts.
- When the lamps are faulty, driving is not allowed to avoid affecting driving.

Notice

If you touch the glass of the bulb with your fingers, the grease on your fingers will evaporate due to heating, which will form a coating on the reflector and damage the glass.

Common Faults of Vehicle Doors

Fault information	Fault diagnosis	Simple Treatment
When opening/closing a door, it does not respond	Lock latch fault	Contact Yutong authorized service personnel for repair
When opening/closing a door, there is no display	The circuit or the proximity switch has a fault	Contact Yutong authorized service personnel for repair

Lighting system

Bulb replacement

Precautions:

- It is recommended that you replace the bulb at a repair station authorized by the manufacturer.



Danger

- When replacing the bulb, there is a risk of burns from hot components.
- During operation, the bulb, lamps and plug may become very hot. Therefore, if you accidentally touch these hot components when replacing the bulb, it may cause skin burns.

- Cooling wait: Make sure the bulb has cooled before replacing it. For example, when replacing a headlight bulb, shut down and wait for a while to allow the bulb and surrounding components to cool to a safe temperature.
- Protective equipment: Wearing heat-resistant gloves can effectively prevent burns caused by direct contact with hot bulbs or lamp holders.
- Operating environment: Operate in a cool and ventilated place and avoid touching other hot components in the vehicle compartment.
- The bulb may explode in the following conditions:
 - Touch the bulb when it is hot.
 - The bulb accidentally dropped.
 - Scratches on the glass wall of the bulb.

Safety tips for operation:

i Notice

- If the bulb has been dropped or its glass wall is scratched, please stop using it and replace it in time. Always protect the bulb from moisture during operation and ensure that the bulb does not come into contact with any liquid.
- Bulbs and lights are an important part of vehicle safety, so it's important to make sure all bulbs are working properly at all times.

- Faulty bulbs must be replaced with certified new bulbs of the correct wattage and voltage.
- When replacing a new bulb, only touch the bulb with a clean, lint-free cloth or similar item, and never touch the bulb with wet or oily hands.
- Check the connectors for corrosion and clean them if necessary.
- Make sure the sealing part is installed correctly and replace it with a new one if it is damaged.
- If the newly replaced bulb fails to come on, please contact a manufacturer authorized repair station for consultation, inspection and repair.

When replacing a bulb, please note the following points:

- To prevent short circuits, always turn off the lighting system and the vehicle power supply before replacing bulbs.
- Be sure to wear safety glasses and clean gloves when operating.

i Notice

For LED light, it is recommended to have them replaced in a qualified professional repair workshop. In

Lighting system

particular, the rear LED lamp unit can usually only be replaced as a whole, and individual components cannot be replaced individually. Therefore, when encountering such problems, do not handle them by yourself to avoid causing greater damage or safety hazards. Be sure to seek help from Yutong authorized service personnel.

Bulb specification

- Light for exterior lighting

Item	Model
High/low beams	Integrated halogen light
Daytime running light	LED light
Rear combination light	LED light

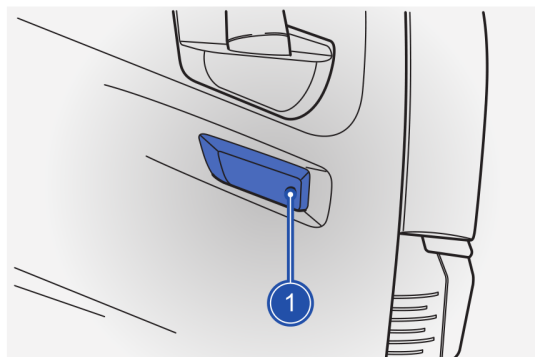
Item	Model
Front fog lamps	LED front fog lamp (Integrated turn assist light)

- Light for interior lighting

Item	Model
Reading lamp	LED light

Replace the exterior lights

- Side turn signal light (right front light as example)



1. Remove the screw ① and remove the side turn signal light.
2. Replace the side turn signal light with a new one, and turn the screw clockwise to tighten it.

Vehicle Nameplate

The nameplate information displays important vehicle specifications. When repairing or renewing parts, it provides accurate product information. You can locate each type of nameplate according to the following information:

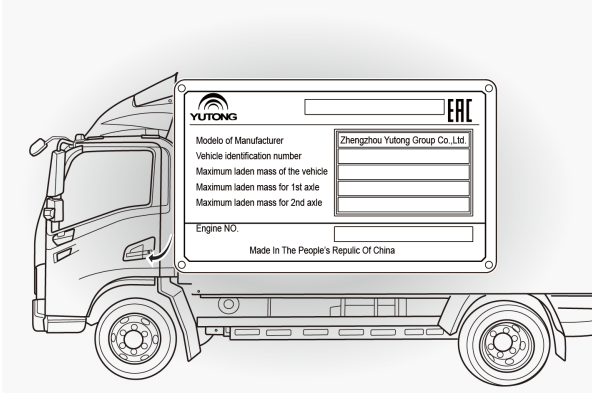
Trademark and model: On both sides of rear of the freight box.

Traction motor nameplate: On the side of the traction motor housing.

Traction motor steel stamping: On the traction motor end cover.

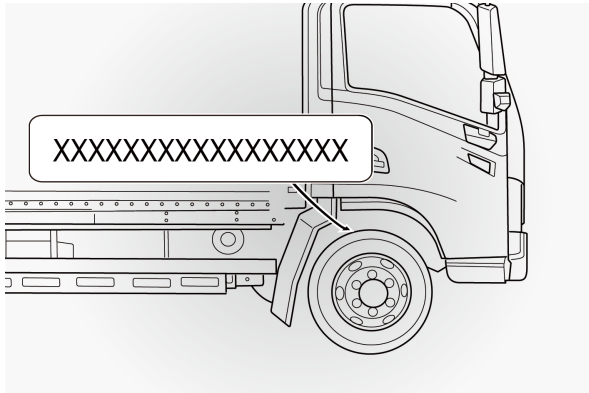
Product nameplate: Be affixed to the upper edge of the door buckle on the driver side of the vehicle body.

Specific vehicle information is subject to the nameplate on the actual vehicle.



VIN

Stamping position: According to local regulations, the VIN is located on the outer side of the right longitudinal beam (or left longitudinal beam) at the front wheel.



Major Technical Specifications of the Vehicle

Item	ZKH5075BEV T7plus
Length * width * height (mm)	5995*2144*3000
Chassis manufacturer	Zhengzhou Yutong Group Co., Ltd.
Chassis model	ZKH1075BEVJ
Motor model	TZ220XSYTC55
Motor manufacturer	Yutong Bus Co., Ltd.
Maximum power (kW)	200
Maximum torque (N·m)	470
Suspension system	Leaf spring
Drive type	4 × 2

Major Technical Specifications of the Vehicle

Item	ZKH5075BEV T7plus
Complete vehicle curb mass (kg)	2970
Wheelbase (mm)	3360
Brake distance (m) (v=30km/h)	≤9
Minimum ground clearance (mm)	180
Maximum speed (km/h)	90
Rated passenger capacity	3
Minimum turning diameter (m)	13.5
Fuel type	Battery electric

Major Technical Specifications of the Vehicle

Item	ZKH5075BEV T7plus
Approach angle/departure angle (°)	18/12
Continuous/maximum gradeability	12/24

Tire specifications and air pressure

Brand	Tire specifications	Single tire pressure (kPa)
SAILUN	215/75R17.5	750

Battery specifications

Rated battery capacity (kWh)	Rated voltage (V)	Rated capacity (Ah)
100.46	502.32	200

Lubricating oil and fluid

Type	Filling volume	Type and grade
Rear axle lubricating oil	About 6.5 L	GL-5 80W/90 long-life gear oil (above -25°C) GL-5 75W/90 long-life gear oil (-25°C to -40°C)
Coolant	Liquid-cooling vehicle models: Approximately 23 L	Minimum environment temperature $\geq -20^{\circ}\text{C}$: -25#, organic Minimum environment temperature $\geq -40^{\circ}\text{C}$: -45#, organic
Left and right steering knuckle kingpin	Until fresh grease spills from the junction of parts	Lithium base grease 2#

Wheel alignment

Description	Parameter	Description	Parameter
Caster angle	3°-5°	Kingpin inclination angle	8°±1°
Camber angle	30'-90'	Front wheel toe-in (mm/m)	0 - 2
Rear wheel toe-in (mm/m)	± 4	Propulsion line (mm/m)	± 6



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