Eurabus Electric Bus Service Planning

Models:

Pure electric Coach 12m

Pure electric City Bus standard 8.5m

Pure electric City Bus airport version 8.5m

Pure electric apron bus 14m

The service plan includes service times and service / maintenance work overview. The complete service / maintenance procedures are not content of the document.

Eurabus GmbH

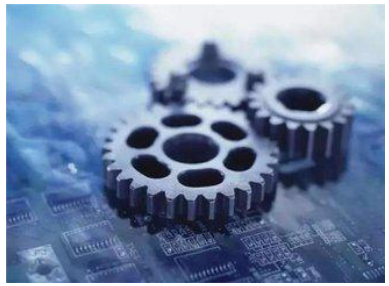
Vehicle Information

Vehicle information registration card

User Info		Vehicle Info	
Owner/ Company name:		Product model:	
1D number / Company code:		VIN number:	
Telephone number:		Motor number	
E-mail:		Production date:	D M y
Postal code:		Delivery date:	D M y
Dealer signature:		User signature:	
The new car has been completed and checked! Signed and sealed: date: D M y		The experience vehicle is in good condition and the information is complete. signature: date: D M y	

Running-in period of new vehicles

Running-in period of new vehicles



When the new passenger vehicles are put into service, special attention shall be paid to the running-in period of new vehicles, which is of great importance for the service life, operation safety and economic efficiency of passenger vehicles.

Run-in period considerations

The new vehicles are driving 3,500 km.

Load limit The load shall not exceed 75% of the rated payload mass during the run-in period. Speed

limit The maximum speed of each gear shall be 65% of the maximum speed of the gear.

Take care the operating temperatures of the transmission, rear axle, wheel hub and brake drum. In case of severe heating, identify causes and make adjustment or repair.

Drive on the flat and solid road with low slope, and don't drive in the mountains. After running 50 km, the wheel nut shall be tightened to the specified torque.

Always pay attention to the drive axle, wheel hub and brake drum. For any abnormality, identify causes immediately and make adjustment or repair.

Work to be done after running-in

To keep the vehicle in good technical conditions and extend the service life of the vehicles, please follow the provisions below to carry out the maintenance.

Maintenance information

Scheduled Maintenance

Eurabus Pure Electric Bus is an economically driven and economically maintained vehicle. In order to keep the vehicle in the best driving condition, it should be maintained according to the maintenance plan.

Benefits of regular maintenance:

- Save energy;
- Extend the service life of the vehicle;
- Driving safety;
- Driving stability;
- Meet warranty requirements.

Vehicle repair

Pay attention to vehicle performance, sound changes and warnings on the combination meter. Same important facts are as follows:

- The coolant temperature continues to be too high, the coolant does not flow, and there is leakage;
- The motor has stuck or abnormal noise;
- Excessive vibration when the motor is running;
- The vehicle cannot start running;
- The powertrain has an odor;
- The power is significantly reduced;
- Water leakage in the lower part of the vehicle (air conditioning dripping is normal.)
- Lass or deterioration of braking effect;
- The cruising range has dropped significantly;
- Battery temperature continues to be high temperature, overheat protection, no power output, etc.

If you find these situations, contact Special maintenance station technician of Eurabus as soon as possible and the vehicle may need to be adjusted or repaired.

eurabus
DRIVEN BY ELECTRIC POWER

Maintenance plan

Maintenance Period Schedule

The schedule shows the inspection and maintenance items and period for the first year, and the annual maintenance from the second year shall be performed according to the items in the first year, apart from the initial inspection items. The inspection and maintenance period is expressed in terms of mileage and number of months, whichever is earlier.

A: indicates the total mileage (xlO00km) B: indicates the number of months

*: indicates the maintenance items to be performed. *: indicates the running-in, maintenance and inspection items

Items	Inspection and maintenance items	A	2.5	4	8	12	16	20	24	28	32	36	40	44	48
		B	-	1	2	3	4	5	6	7	8	9	10	11	12
Power Battery	The communication data is normal. (instrument data check)		*	*	*	*	*	*	*	*	*	*	*	*	*
	Compressed air to remove dust, keep it dry and clean. (no water rinse)					*			*			*			*
	The battery box body and the chassis are fixed firmly without looseness.					*			*			*			*
	The connection of each terminal is secure and not loose, and the jacket is not misaligned.					*			*			*			*
	The battery box collection line, power harness and each plug are not damaged and buckled in place.					*			*			*			*

Items	Inspection and maintenance items	A	2.5	4	8	12	16	20	24	28	32	36	40	44	48
		B	-	1	2	3	4	5	6	7	8	9	10	11	12
Motor Controller	The communication data is normal. (instrument data check)		*	*	*	*	*	*	*	*	*	*	*	*	*
	The terminals of motor controller +, -, U/V/W are sure connected without loosening.					*			*			*			*
	The control harness connector is firmly connected, and the ground wire of the controller casing is firmly connected without looseness.					*			*			*			*
Drive motor	The motor terminal box is intact, and the U, V, and W terminals are securely connected, and there is no looseness. (torque, terminal joint ablation)					*			*			*			*
	The motor fixed damping rubber pad has no cracks, bolts and no looseness.					*			*			*			*
	Remove dust from the surface of the drive motor and keep it dry and clean.					*			*			*			*
	Motor and motor controller low voltage harness connector is firmly connected, With or without damage					*			*			*			*
High pressure auxiliary control box	Compressed air to remove dust, keep it dry and clean. (no water rinse)					*			*			*			*

Items	Inspection and maintenance items	A	2.5	4	8	12	16	20	24	28	32	36	40	44	48
		B	-	1	2	3	4	5	6	7	8	9	10	11	12
High pressure auxiliary control box	The fixing bolts of the high-pressure auxiliary control box are firmly connected without looseness; the cushion is intact and there is no damage, the end of the grounding wire of the casing is not corroded, and the fixing bolts are firm and not loose.					*			*			*			*
	External wiring is firm and free from loosening. The harness with protective sleeve should be installed in place.					*			*			*			*
Charging stand	The charging stand, harness and pin are not damaged or loose.					*			*			*			*
	The measurement uses a megohmmeter above 1000V, and the insulation resistance is greater than 500O/V.					*			*			*			*
The high-Voltage line	The high-voltage line should be free from damage, bundled and fixed, no bumping parts, and the plug is buckled in place.					*			*			*			*
	The high-voltage lines are arranged neatly, firmly fixed, and do not interfere with moving parts.					*			*			*			*
	The copper connectors of the connecting wires are free from desoldering, loosening, breakage and overheating.					*			*			*			*

Items	Inspection and maintenance items	A	2.5	4	8	12	16	20	24	28	32	36	40	44	48
		B	-	1	2	3	4	5	6	7	8	9	10	11	12
Air compressor	Check if the air compressor works normally.		*	*	*	*	*	*	*	*	*	*	*	*	*
	Check air compressor oil level (except oil-free air compressor)		*	*	*	*	*	*	*	*	*	*	*	*	*
	Check and clean the air compressor air filter element				*		*		*		*		*		*
	Replace air compressor air filter element														*
Transmission shaft	Drive shaft Fill grease at each lubrication point		*	*	*	*	*	*	*	*	*	*	*	*	*
	Check whether the connection of the transmission shaft is loose		*			*			*			*			*
	Check the transmission shaft for deviation		*			*			*			*			*
	Check whether the transmission shaft splines are loose					*			*			*			*
	Check whether the cross shaft bearing of the transmission shaft is loose		*			*			*			*			*
Suspension System	Check and tighten all bolts.		*			*			*			*			*
	There is no foreign matter or deposited dirt on the surface of the airbag piston.		*			*			*			*			*
	The damper has no leakage, and the rubber connector is not damaged or vertically cracked.		*			*			*			*			*

Items	Inspection and maintenance items	A	2.5	4	8	12	16	20	24	28	32	36	40	44	48
		B	-	1	2	3	4	5	6	7	8	9	10	11	12
Axle	Clean the front and rear axle and wheel assembly.		☆	★	★	★	★	★	★	★	★	★	★	★	★
	Check the oil level of the final reducer gear, clean the vents, and add gear oil if necessary.					★			★			★			★
	Check the tightening of the axle bolts and wheel nuts		☆	★	★	★	★	★	★	★	★	★	★	★	★
	Change the lubricating oil during the maintenance of the new car, and replace the lubricating oil in the next 2 years or 120,000 km.		☆									★			
	Check if the wheel bearing has oil seepage. If not, it is forbidden to remove the end cap bolt.		☆	★	★	★	★	★	★	★	★	★	★	★	★
	The thrust rod is installed firmly, without cracking, and the ball is intact and not loose.		☆			★			★			★			★
	The bridge body inspection has no cracks, no deformation, no displacement.		☆			★			★			★			★
Wheel	Check tire pressure		☆	★	★	★	★	★	★	★	★	★	★	★	★
	Check tire wear and tire bulge, change tires every 10,000 kilometers, and replace heavily worn tires if necessary.		☆	★	★	★	★	★	★	★	★	★	★	★	★
Braking System	Check the brake pedal free travel		☆	★	★	★	★	★	★	★	★	★	★	★	★
	Check brake performance		☆	★	★	★	★	★	★	★	★	★	★	★	★

Items	Inspection and maintenance items	A	2.5	4	8	12	16	20	24	28	32	36	40	44	48
		B	-	1	2	3	4	5	6	7	8	9	10	11	12
	Check the energy storage spring parking brake performance		☆	★	★	★	★	★	★	★	★	★	★	★	★
Braking System	Check air duct for leaks, damage and installation		☆	★	★	★	★	★	★	★	★	★	★	★	★
	Check brake soft and hard pipe fittings for damage and connection		☆	★	★	★	★	★	★	★	★	★	★	★	★
	Check brake valve and other valve sealing effectiveness														★
	Check the brake gap to automatically adjust whether the arm is working properly		☆						★						★
	Check the wear and damage of the brake drum (disc) and brake shoe friction plates				★		★		★		★		★		★
	Check if the wheel brake chamber is working properly and damaged														★
Steering system	Check the cleanliness and remaining amount of the lubricant			★	★	★	★	★	★	★	★	★	★	★	★
	Check the tightening of various bolts and nuts in the steering system		☆	★	★	★	★	★	★	★	★	★	★	★	★
	Check the steering wheel rotation, whether it is loose or vibrating			★	★	★	★	★	★	★	★	★	★	★	★
	Check the steering gear and hydraulic lines for oil leakage		☆	★	★	★	★	★	★	★	★	★	★	★	★

Items	Inspection and maintenance items	A	2.5	4	8	12	16	20	24	28	32	36	40	44	48
		B	-	1	2	3	4	5	6	7	8	9	10	11	12
	Check if the steering gear is installed loosely		*	*	*	*	*	*	*	*	*	*	*	*	*
Steering system	Check if the steering bearing is loose														*
	Check steering gear clearance														*
	Check the internal leakage of the steering gear														*
	Check the steering gear connection for loose chattering and damage		*			*			*			*			*
	Check the connection between the horizontal tie rod and the joint arm for wear and damage														*
	Check the knuckle arm and its connection to the knuckle for cracks														*
	Check if the knuckle connection is loose								*						*
	Check the steering knuckle for cracks														*
	Check the positioning of the front wheels														*
	Check the steering angle of the front wheel														*
	Check the liquid level of the power steering hydraulic system		*	*	*	*	*	*	*	*	*	*	*	*	*
	Check if the hydraulic pump is working properly														*

Items	Inspection and maintenance items	A	2.5	4	8	12	16	20	24	28	32	36	40	44	48
		B	-	1	2	3	4	5	6	7	8	9	10	11	12
	Check the installation and fastening of various components of the hydraulic system		*			*			*			*			*
Cooling system	All the cooling water pipe joints/transfer positions of the whole vehicle have no leakage marks and the water pipes are not broken.			*	*	*	*	*	*	*	*	*	*	*	*
	The liquid level of the expansion tank coolant is not lower than the lower line mark; the antifreeze is replaced every 2 years.			*	*	*	*	*	*	*	*	*	*	*	*
	The radiator cooling grille is free from foreign matter.			*	*	*	*	*	*	*	*	*	*	*	*
Electrical equipment	Check battery voltage		*	*	*	*	*	*	*	*	*	*	*	*	*
	Check that the vehicle lights, instrument clusters, speakers, wipers and appliances are working properly.		*	*	*	*	*	*	*	*	*	*	*	*	*
	Check for loose or damaged electrical wiring connections		*			*			*			*			*
	Check the air conditioning and heating system piping performance and performance.		*						*						*
Body and chassis frame	Check the fastening status of the body trim, seat belt and external structural parts, and check the fastening status of the connecting bolts.		*	*	*	*	*	*	*	*	*	*	*	*	*

Items	Inspection and maintenance items	A	2.5	4	8	12	16	20	24	28	32	36	40	44	48
		B	-	1	2	3	4	5	6	7	8	9	10	11	12
	Check and lubricate the passenger door shaft.		*	*	*	*	*	*	*	*	*	*	*	*	*
Body and chassis frame	Inspect doors and glass, and lubricate moving parts such as hinges and locks.		*	*	*	*	*	*	*	*	*	*	*	*	*
	Check that all joints are secure, complete and effective, such as: skeleton rivets, all fixed brackets, etc.								*						*

Vehicle system oil and water meter

Lubrication position	Model (quantity)
Rear axle reducer	Ecofluid X SAE 80W-90 16.SL
Front axle wheel bearing	No.2 lithium grease; Unilateral 200g
Centralized lubrication system	NLGI-000 /NLGI-00
Power steering oil	ATF 220 / ATF DEXRON-IID /ATF III lOL
Coolant	-35 frozen liquid (mixture of 60% ethylene glycol and 40% deionized water)
Airconditioning refrigerant	R407C 4.8kg
Airconditioning refrigeration oil	FV685
Rear axle reducer	Change the lubricating oil during the maintenance of the new car, and replace the lubricating oil in the next 2 years or 120,000 km.
Centralized lubrication system	Check weekly and replenish in time.
Power steering oil	Replace the lubricant once every 2 years or 120,000 kilometers.
Coolant	Replace the antifreeze every 2 years.

Maintenance classification

Maintenance classification at all levels

Routine maintenance	After daily operation
Level 1 maintenance	3500 km~4000km (when the daily mileage is short and it is not possible to determine the maintenance period according to the mileage, the maintenance interval cannot exceed one month at most. The running-in and first maintenance of new vehicles shall be carried out simultaneously with the level 1 maintenance.)
Level 2 maintenance	12000 km~lS000 km (when the daily mileage is short and it is not possible to determine the maintenance period according to the mileage, the maintenance interval cannot exceed five months at most)
Seasonal maintenance	(level 1 or level 2) maintenance before winter or summer comes

Confirm the maintenance section of your vehicle according to the maintenance period and require that the level 1 maintenance process is completed before the level 2 maintenance process, to prevent failing to maintain and inspect the items that shall be maintained and inspected.

Please perform the maintenance in time after the vehicles reach the maintenance time point.

Routine maintenance

To ensure that the vehicles are in good order, the maintenance shall be performed by the driver daily before dispatching, during driving and after off running. The routine maintenance is dominated by cleaning, observation, and inspection. The main tasks are as follows:

1. Check the oil volume of the power steering oil tank and replenish if necessary.
2. Check the oil volume of the air compressor and replenish if necessary.
3. Check the oil pipes, water pipes, gas pipes and other sealing devices for bending, folding or leakage.
4. Check whether the steering and brake components are flexible and reliable.
5. Check whether the battery wiring is secure and reliable. Check whether the various instruments, lights, signals, and wipers etc. are operating properly.
6. After the drive motor starts, listen and check whether the motor parts are operating normally.
7. Check whether the air spring height is normal and the control air pipeline leaks air; check the air spring for wear, damage and improper bulging etc. check whether there is adequate clearance around the air spring; check and remove any sand, glass slag and other foreign matters adhering to the piston of the air spring base; check all the fastening connectors of the air suspension.
8. Check whether the tire is damaged, and the air pressure is normal.
9. Drain the water in the wet air cylinder.
10. Eliminate the failures occurring in the daily operation.
11. Check whether the electrical wiring in the rear cabin is loose or abraded, and the terminal copper is exposed.
12. Clean the three big electric components and three small electric components, including power battery, drive motor, motor controller, electric air compressor, steering pump motor, high-pressure defroster, and other components. The surface shall be free of water or dust.

Level 1 maintenance

It shall be performed 2 times a month or every 3,500-4,000 km by the specialized maintenance personnel that is designated by the customer or has been trained. In addition to routine maintenance, mainly perform the cleaning, tightening and lubricating operations, and check the braking, manipulating and other safety components. **The running-in and first maintenance of new vehicles are same as the level 1 maintenance.**

1. Inspect and replenish the lubricating oil of the transmission and rear axle, as well as the hydraulic oil of the steering gear and power steering system.
2. Inspect and clean the air filter of the air compressor and the entire surface, especially the cooler surface, to prevent dust from clogging the heat emission hole, thus causing high temperature. Please replace the air filter element in time if it is too dirty.
3. Inspect and tighten the bolts of transmission shaft, the bolts and nuts at the joints of the steering mechanism, all fastening connectors of front and rear air suspensions, such as attachment bolts of the thrust rod, attachment bolts of front suspension air spring support and the axle, U-bolts of rear suspension, fastening nuts of height valve adjusting pull rod, bolts of engine support as well as bolts and nuts of other parts.
4. Clean the outside of the battery and charge it if necessary.
5. Check whether the tire pressure is within the specified range and check the tread condition.
6. Start the drive motor, steering pump motor and electric air compressor, listen and check whether there is noise during operation, and observe whether the parts are leaking.
7. Check whether the mounting structure screws of the power battery are loose and clean the dust.
8. Check the level of the oil tank, and check whether the filter screen is clogged, and the oil pipe joints are loose.
9. When the compressor is in operation, check whether the lubricating oil level is between 1/2 - 2/3 of the oil sight glass opening.
10. Check the free rotation amount of the steering wheel and adjust if necessary.

11. Check the transmission shaft and cross shaft bearing for looseness and check the tightening of each fork flange nut.

12. Check the fastening of front and rear shock absorbers, and check all the fastening connectors of the air suspension, such as the tightening torque of attachment bolts of thrust rod, attachment bolts of front suspension air spring support and axle, and U-bolts of rear suspension; check that the air spring height corresponds to the design value with an error of less than 6 mm; check and maintain the tightening and installation of height control valve and its adjusting arm, and adjusting pull rod.

13. Check the frame for cracks, and check whether the bolts, nuts and rivets are loose.

14. Check whether the three big electric components and three small electric components are firmly fastened, remove dust with vacuum cleaner or air compressor, and keep dry and clean.

15. Carry out the insulation inspection of the three big electric components and three small electric components, such as power battery, drive motor, motor controller, electric air conditioner, electric air compressor, steering pump motor and high-pressure defroster. The insulation resistance between high voltage line or terminal and vehicle body ground shall be higher than 2MO.

16. Check whether the power battery wiring terminal head and the plug-in are loose, no bareness is allowed, and the harness protection cover shall be installed in place.

17. Lubricate as specified in Appendix A.

Level 2 maintenance

It shall be performed 1 time every 4 months or every 12,000-15,000 km by the specialized maintenance personnel that is designated by the customer or has been trained. Take inspection and adjustment as the center, dismantle the tires, and rotate the tires.

1. Complete all items included in the level 1 maintenance.
2. Refer to the special maintenance for the maintenance of driving motor and power battery.
3. Remove and adjust the transmission, drive shaft, front axle, rear axle, and steering mechanism, and replace the lubricating oil.
4. Check the air spring for wear or crowfoot cracks and replace if necessary; check the thrust rod rubber bushing for wear, and if necessary, replace the rubber bushing or thrust rod assembly.
5. Check the inductor of each instrument and adjust if necessary.
6. Check whether the support and suspension device at the rivet joint of the frame are fixed reliably, and repair, remove rust and repair paint if necessary.
7. Check the battery and charge it if necessary.
8. Replace the power steering hydraulic oil for every 20,000 km, replace the filter element, clean the oil tank, and pipeline system, drain the dirty debris, carefully clean the oil tank, oil filter and pipeline when changing oil, and check each retaining screw.
9. Clean or replace the air filter element of the air compressor every 40,000 km or 6 months of operation.
10. Clean or replace the oil return valve, oil filter element and temperature control valve of the air compressor every 80,000 km or 12 months of operation.
11. Lubricate as specified in Appendix A.
12. Rotate the tires with its cross-rotation route as follows.

Seasonal maintenance

It can be combined with the regular (level 1 or level 2) maintenance before winter or summer comes.

1. Take the anti-freezing and thermal insulation measures in winter;
2. Replace with the winter lubricating oil for each assembly and wheel hub bearing and replace with the winter brake fluid for the brake system.
3. The maintenance of the cooling system shall be strengthened in summer to remove scale deposit and ensure good cooling effects;
4. Replace with the summer lubricating oil (grease) for each assembly and wheel hub bearing and replace with the summer brake fluid for the brake system.
5. Check and adjust the battery electrolyte density and liquid level and keep the air vents clear.

Electrical maintenance

Low-voltage electrical inspection

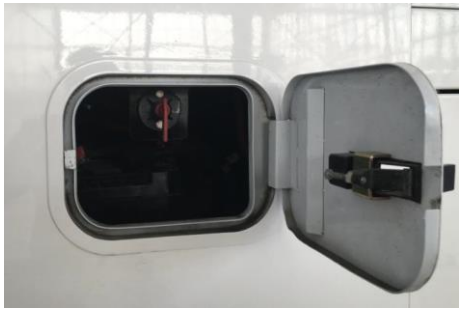
Battery

For vehicles that have been in stock for more than one year, the battery has never been recharged or charged according to normal conditions of use.

The battery must be replaced, and the battery discarded.

Warning!

- **The battery may produce hydrogen with flammability and explosive properties.**
- **When using the tool, do not let the battery spark.**
- **The electrolyte contains toxic and corrosive sulfuric acid to prevent the electrolyte from splashing on eyes skin or clothing.**



If the vehicle has been stored for more than one day, disconnect the main power switch.

Attention!

- **Before performing maintenance, confirm that the vehicle has been powered *oft.***
- **When checking the battery, first remove the grounding cable from the negative connector ("-" mark) and finally install it.**
- **Do not cause a short circuit in the battery when using the tool.**
- **When cleaning the battery, be careful not to allow liquid to enter the battery.**

Check battery exterior

Check the battery electrode for corrosion, looseness of the press or loose joints or cracks.

1. If the electrode is corroded, it must be cleaned with a mixture of warm water and baking soda. Apply grease to the outside of the joint to prevent further corrosion.
2. If the joint is loose, tighten the nut of the clamp, but do not overtighten. Recommended torque is s~7N.m.
3. Tighten the press to ensure that the battery is in place. Excessive tightening will damage the battery body. Recommended torque is 9~11N.m.

Check battery status

Check the battery voltage with a multimeter.

- If the voltage reaches 12.6V or more, the battery is normal.
- If the voltage is between 11V and 12.4V, if the charging is insufficient, it should be charged in time;
- If the voltage is lower than 10.SV, the battery will be over-discharged and should be charged in time.

Attention! 

- **Use a 12V charger to recharge the battery. Do not recharge the two batteries in series.**
- **The charging environment temperature should be no higher than 50 °C.**
- **During the charging process, when the battery temperature exceeds 55 °C, the charging should be stopped. After the battery temperature drops to room temperature, the charging current is halved, and charging continues.**
- **When a single battery is damaged, the two batteries on the same car should be replaced together.**
- **Charging the battery when the cable is not disconnected can seriously damage the vehicle's electronic control unit and electrical equipment. Therefore, remove the battery cable before connecting the battery to the charger.**
- **If the DC and the auxiliary motor controller are not working, long-term use of the vehicle's electrical equipment may cause the battery to over discharge, causing the vehicle to fail to start or even permanently damage the battery.**

Check low pressure insurance

If the vehicle electrical appliance does not work, check the insurance. If

the insurance has been burned; it must be replaced.

De-energize the vehicle, press the mark on the cover of the power distribution box, find the insurance position, and use the pull-out tool in the power distribution box to pull out the Insurance vertically to check whether it has been burnt.

If you are not sure if the insurance has been burned, you can use good insurance to replace the insurance that may be problematic.

Warning! 

- **Only install the insurance with the specified amperage value on the power distribution box cover; never use insurance above the specified amperage value, or any other conductor instead of insurance, otherwise it may cause serious damage or even cause a fire.**
- **If the newly replaced insurance is immediately burned, there may be problems with the electrical system. You must contact the special maintenance station of Eurabus as soon as possible.**

Check lighting system

Power on the vehicle, turn on all the light switches, and check if the lamps work properly. If

the luminaire does not illuminate, replace the luminaire or service line.

Check the low voltage harness

Check the low-voltage harness connector of the vehicle controller, high-voltage distribution box, auxiliary controller, motor controller, instrument, front and rear control module for damage and reliable connection.

Check whether the electrical harness in the cabin, under the instrument panel, in the chassis and in the rear compartment is bundled, arranged neatly, fixedly clamped, and firmly connected; check whether the harness is damaged or exposed, whether it interferes with the moving parts, whether it is wrapped with the tubing Together, whether it is more than 100mm away from the heat source, otherwise an effective insulation device should be provided.

High-voltage electrical inspection

High voltage line and connector maintenance

1. Check and maintain the high voltage connector every 6 months (visual inspection).
2. Check all the high-voltage wire surface insulation layer is intact, with or without damage, if it is replaced in time.
3. Check all high-voltage connectors for looseness and damage and replace them if necessary.
4. Check whether the crimping parts of all high-voltage line terminals are loose, and if there is any arcing on the surface of the terminal, replace it if it is timely.

Attention! 

- **Turn off the vehicle power supply and disconnect the 24V low voltage.**
- **The positive and total negative high voltage connectors on both sides of the battery box are disconnected.**

Motor and motor controller maintenance

Regularly check and maintain the motor and motor controller. Check the contents as follows:

1. The outer surface is flat, no deformation, no damage, and all screws are not loosened.
2. Whether all the connecting lug bolts in the motor and motor controller are loose, and there is no arcing on the surface of the lug.

The specific maintenance requirements are as follows:

project	Specific description	Measure	Check interval
Motor as a whole	Complete machine integrity, parts with signs of bumps and damage	Replace when affecting performance	Once a month
Motor controller overall	Complete machine integrity, parts with signs of bumps and damage	Replace when affecting performance	Once a year
Motor installation	The integrity of the motor suspension, whether the relevant fasteners are loose or not	Retighten according to specifications	Once a month
Motor controller installation	Whether the relevant fasteners have signs of looseness	Retighten according to specifications	Once a month
Motor cooling inlet/outlet	Whether there is leakage of coolant	Retighten the clamp	Once a month
Motor controller cooling inlet/outlet	Whether there is leakage of coolant	Retighten the clamp	Once a month
Expansion tank	Whether the coolant level is below the lower limit	Add antifreeze	Once a week
Coolant	Whether the coolant is turbid	Replace antifreeze	Once a year
Motor exhaust valve	Whether foreign matter and impurities are accumulated around the exhaust valve	Brush cleaning	Once a month
Motor controller exhaust valve	Whether foreign matter and impurities are accumulated around the exhaust valve	Brush cleaning	Once a year
Motor side phase cable fixing head	Whether the cable fixing head is loose	Re-tighten according to specifications	Once a month
Motor side phase cable stud	Whether the cable screw plug is loose	Re-tighten according to specifications	Once a month

project	Specific description	Measure	Check interval
Phase cable between motor and motor controller	Whether the phase cable is loose	Re-tighten according to specifications	Once a month
Phase cable between motor and motor controller	Whether the cable is warn, peeled and ablative	Replace as serious as possible	Once a month
Motor controller side phase cable fixed head	Whether the cable fixing head is loose	Re-tighten according to specifications	Once a month
Motor controller de busbar cable	Whether the de bus is loose	Re-tighten according to specifications	Once a month
Motor controller de busbar cable	Whether the de busbar shows signs of wear, peeling and ablation	Replace as serious as possible	Once a month
Motor controller de bus fixed head	Whether the cable fixing head is loose	Re-tighten according to specifications	Once a month
Motor controller de bus stud	Whether the cable screw plug is loose	Re-tighten according to specifications	Once a month
Signal line between motor and motor controller	Whether the connectors at both ends of the signal linear loose	Re-tighten according to specifications	Once a month
Signal line between motor and motor controller	Whether the signal line shows signs of wear and tear	Replace as serious as	Once a month
The motor controller is connected with the vehicle controller	ls the connector loose	Re-tighten according to specifications	Once a month
Vehicle controller connector	ls the connector loose	Re-tighten according to specifications	Once a month

project	Specific description	Measure	Check interval
Motor ground wire	Whether the ground wire is loose	Re-tighten according to specifications	Once a month
Motor controller ground wire	Whether the ground wire is loose	Re-tighten according	Once a month
Ventilation and cleaning	Whether dust accumulates on the surface of parts	Use the air gun to clean the surface	Once a month
Whether the cooling fan works normally	Check whether the cooling fan is leaking, whether the fan is damaged or accumulated a lot of dust;	Use the air gun and clean	Once a month
Whether the speed feedback is normal	When the vehicle is running, observe whether the motor speed is stable and whether it is displayed as "0" at rest.	Detection of wiring harness	Once a month
Whether there is abnormal sound during motor operation	When the vehicle is running, carefully listen to the motor whether there is abnormal sound; Motor abnormal sound can be divided into two categories: A. motor mechanical abnormal sound: the cause of such abnormal sound may be caused by mechanical structure. Mechanical sounds such as: "kaka... ", "cackle... ". B. Electromagnetic abnormal sound of the motor: the cause of such abnormal sound may be internal to the motor control system. Electromagnetic abnormal sound such as: "sizi... ", "wheeze... The sound.	Change when performance is affected	Once a week

project	Specific description	Measure	Check interval
Check whether the motor is well sealed	Motor sealing mainly depends on the following aspects: A. Whether the three AG terminals of the three-phase ac terminal are tightened (it is required to screw to the bottom of the thread); B. Whether the 7 M6 12 bolts on the junction box cover should be tightened (it is required to screw to the bottom of the thread);	Re-tighten according to specifications	Once a month
Check whether the motor controller is weil sealed	The airtightness of the controller mainly depends on the following aspects: A. Whether the three AG terminals of the three-phase ac terminal are tightened (it is required to screw to the bottom of the thread); B. Whether the 2 AG terminals of the de wiring ports should be tightened (it is required to screw to the bottom of the thread); C. whether a MP connector is installed in place D. Whether the bolts on the junction box cover of the controller should be tightened (to the bottom of the thread); Do not loosen the bolts on the controller cover plate.	Re-tighten according to specifications	Once a month

project	Specific description	Measure	Check interval
Whether the product shell is in good common ground with the body	A. Adjust the working mode of the multimeter to the resistance level; B. Contact the black test pen of the multimeter with the bolts on the controller cover; Contact the red test pen of the multimeter with the girder of the chassis of the vehicle. Linder the condition of the controller and reliable grounding, resistance value is less than 0.1 0. **Attention!** • **No oxide layer on the surface of the bolt in contact with the watch pen;** • **Multimeter need 0.1 0 resistance test precision accuracy level;**	Re-tighten according to specifications	Once a month
Whether the temperature feedback is normal	A. After the car has been powered down for some time, turn the key and turn on the 24V control power, but not the strong power. B. Observe motor temperature and motor controller temperature should be close to the ambient temperature; C. launch vehicle, the vehicles started driving, motor temperature, the temperature of the motor controller has increased, the rise of temperature of the short in 5 ·C; D. when cars start, after a period of time, the motor temperature, the temperature of the motor controller is generally under 80 °C.	Test harness, temperature sensor	Once a month

project	Specific description	Measure	Check interval
Whether the communication with the vehicle controller is normal	A. After the car is powered down for a period of time (generally 3 minutes), turn the key on the 24V control power and turn on the strong power, but do not start the motor; At this time, the motor speed signal on the meter is jumping change. B. When slipping or braking, the torque is negative, and the value of torque will be different from the speed, battery voltage, motor control system temperature and other conditions.	Test harness, controller	Once a month
Electrical insulation test	Remove the motor phase from the controller, the controller of three-phase output and input sub bus bar, the use of 1000 V megohmmeter for bus and three-phase output of tested insulation casing, high voltage electrical equipment of total insulation is greater than 500 Ω/V. (the insulation resistance is calculated according to the nominal voltage of the equipment)	Test wiring harness, high voltage battery, high voltage electrical insulation. Replacement of corresponding parts	Once a month

Special maintenance of power battery

The vehicle shall be fully inspected every three months. The specific inspection items are as follows:

1. Whether the high and low voltage wiring harness and connector of the battery system have abrasion, breakage, and looseness.
2. Whether there is sludge, cracks, deformation, odor and bulge in the battery box or high-pressure box.
3. There is no damage to the air pressure balance valve or explosion proof valve of the battery box.
4. Whether the battery box and high-pressure box are firmly connected to the frame.
5. Check whether the information data sent by BMS is correct on the instrument display, such as voltage, temperature, current and insulation resistance,
6. Check the BMS communication function and the charging equipment function,
7. Check whether the voltage difference of the battery cell is normal. When the vehicle is moving, the pressure difference of the battery cell shall be less than 150mv. After the vehicle is kept stationary for half an hour, the pressure difference of the battery cell shall be within 80mv.

Attention! 

- **Before performing the inspection, please wear insulating shoes, insulating gloves, protective goggles, and other protective articles to ensure personal safety. If any abnormality is found in the inspection, please contact our after-sales department or service station for help. Do not repair without permission.**

Fault analysis and troubleshooting

Motor, power battery SanDian information failure, please pull over for instrument fault information interface pictures as soon as possible, and as soon as possible to contact the relevant professional maintenance personnel for fault diagnosis and maintenance, such as the need for high voltage circuit screening should be 24 V low voltage power supply switch, broken power supply switch or maintenance insurance again, after troubleshooting, to start the vehicle, to run the vehicle.

Warning! 

- **Disassembly of the high-voltage maintenance switch must be carried out in accordance with the "Maintenance High Voltage and High Voltage Process".**
- **If the site cannot be trouble-shooted and you need to carry out the trailer, please follow the "Trailer Operation Method and Precautions".**

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Standard power-off procedure of high voltage system

1. Safe parking

(1) The vehicle is parked in the special maintenance station;
(2) Shift lever to N; (picture on the right)
(3) Set parking brake. (picture on the right)

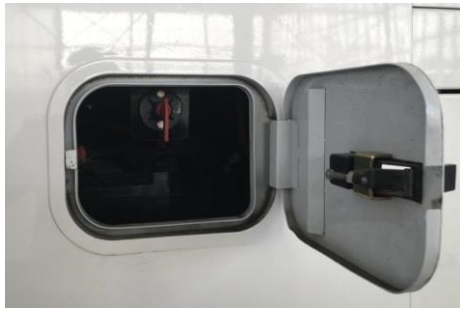
2. Turn off the low-voltage power supply

(1) Put the one-button start switch in OFF gear. Wait 1 minute;

Attention!

- **Generally through the instrument READY light state, the corresponding voltage indication or up and down electrical state indication to confirm Whether the power of the vehicle is cut off.**

(2) Disconnect 24V off low voltage master switch and wait 5 minutes. (picture on the right)



Warning!

- **After the power supply of the vehicle is cut off, the power supply of the high voltage system shall be maintained for several minutes at most. To prevent serious bums or electric shock**

- **Do not touch, cut or damage any orange high-voltage cable or high-voltage parts at this time.**

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3. Disconnect the high voltage manual repair switch (as shown in the right picture)

Attention!

- **Operate with insulating gloves on (check whether the gloves are damaged before use).**
- **Put the removed manual repair switch in the specified place and make a record, so as to prevent others fron installing it into the car.And the exposed repair switch socket is sealed with insulating tape.**

4. Outage confirmation test

(1) There will be a 15-minute wait before the vehicle is serviced.

(2) Disconnect the plug - in for the high voltage bus of the power battery.

5. Set high voltage maintenance warning label (as shown in the right picture)

(1) Set up a warning label, warning that the car being serviced is an electric car and the car has some exposed high-pressure parts. (picture on the right)

(2) At this time, the whole vehicle power failure process is completed.

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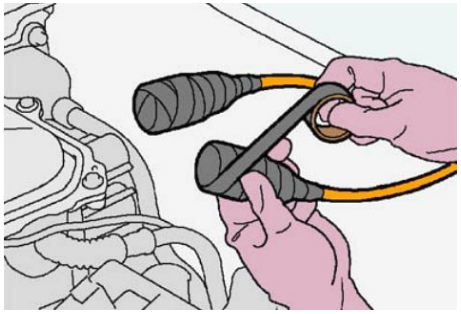
Attention! 

- **The above five steps are the standard power-oft process of the high voltage system. The operation must b« carried out in strict order and in accordance with the standard.**
- **Ensure that after the completion of the power-oft process, the vehicle can be carried out corresponding rescue maintenance and testing work.**
- **It is necessary to seal and protect the corresponding high voltage wire harness plug with insulating tape durini maintenance**



Standard power-on procedure of high voltage system

1. Vehicle installation check and normal confirmation

(1) After servicing the high pressure system, be sure to return the tools to the toolbox or the appropriate location.

(2) Inspect the removed or replaced parts to ensure proper installation and no abnormal installation o- other parts of the vehicle to prevent the vehicle. There are safety hazards after the car is powered on Make sure all connection bolts or screws are tightened (loose, causing high temperature when curren1 flows through). Make sure all connectors are in place, especially those for high voltage components, Make sure to install the lock.

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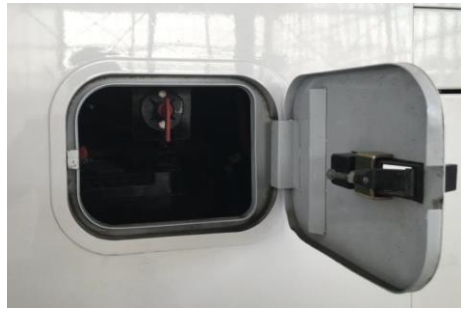
2. Low voltage power on check

(1) Close 24V off low voltage master switch. (picture on the right)



(2) Make sure there is no abnormality in the vehicle. (picture on the right)

Attention!

- **At this time, as there is no high-voltage maintenance switch MSD connected, high-voltage open circuit / interlock fault of the vehicle is a normal phenomenon, but it must be confirmed that there is no other high-voltage fault or abnormality of the vehicle.**

3. Reinstall the high voltage manual repair switch (as shown in the right picture)

(1) Alert vehicle maintenance operators to prepare the vehicle for electrification and to obtain unanimous confirmation.

(2) Disconnect 24V off low voltage master switch and wait 5 minutes.

(3) Open and seal the insulating tape of the repair switch socket, and install the high voltage manual repair switch MSD.

(4) Close the 24V low voltage master switch again.

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4. Final vehicle inspection

(1) After confirming again that there is no abnormality in the vehicle,

(2) turn on the power of the vehicle and conduct the final inspection on the vehicle.

(3) No abnormal vehicle maintenance ends.

(4) At this time, the electrification process of the whole vehicle is completed.

Attention!

- **The above four steps are the standard power on process of the high voltage system.**

Chassis maintenance

The cooling system

Check coolant level

Check the liquid level display of the expansion tank in the rear cabin of the car. If the liquid level of the coolant is between "H" and "L" lines, it meets the requirements. If the liquid level is below the "L" line of the display, coolant must be added.

Add coolant

Operation method for adding coolant

(I)Turn on the power and let the pump run for about 5 minutes. Then turn off the power and repeat 2-3 times. Make sure motor and radiator are cooled.

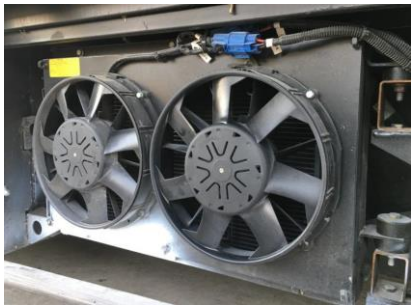
(2) 0pen the expansion tank cover. Acid the specified coolant and tighten the end cap.

(3) Turn on the power and let the pump run for about 5 minutes, then turn off the power. Check coolant level.

(4) If the coolant is insufficient, repeat the above procedure until the coolant reaches the middle of the liquid level display.

(5) Close the expansion tank cover and tighten it thoroughly.

Replace the coolant



Operation method for replacing coolant:

(1) Turn on the power and let the pump run for about 5 minutes. Then turn oft the power and repeat 2-3 times. Make sure motor and radiator are cooled.

(2) Open the cooling fan access port, unscrew the radiator drain valve/remove the outlet connection. Store the dischargec coolant in a suitable container.

(3) After the coolant is drained, tighten the drain valve/install the lower outlet pipe joint again.

(4) Open the expansion tank cover, add the specified coolant to the port, and tighten the end cover.

(5) Turn on the power and let the pump run for about 5 minutes, then turn oft the power.

(6) Repeat(4), (5) until the coolant level in the expansion tank does not drop.

(7) Open the expansion tank cover, add the coolant to the middle section of the liquid level display, and tighten the end cover.

(8) Turn on the power and let the pump run for about 5 minutes, then turn oft the power. Check coolant level.

(9) If the coolant level drops, repeat steps 7 and 8 above until the coolant reaches the middle of the liquid level display.

(10) Close the expansion tank cover and tighten it thoroughly.

After the coolant is added, if the coolant level drops within a short time, the system may leak. Visually inspect radiators, hoses, radiator caps and drain cocks and pumps for leaks.

If no leakage is found, go to the Eurabus special service station to test the cover pressure and check whether there is any leakage in the cooling system.

Warning! 

- **The released coolant shall be collected in containers and treated in accordance with environmental protection regulations.**
- **To prevent bums, do not touch or remove the radiator cover immediately after the power is turned oft.**
- **To prevent radiator damage, do not operate by yourself.**

Choice of coolant type

It is recommended to use the cooling liquid specified by the special service station of Eurabus. The appropriate type of cooling liquid must be selected according to the ambient temperature and added into the cooling system.

Improper use of coolant will damage the motor cooling system.

Warning! 

- **Never use water only as coolant. Using only water as coolant may cause corrosive damage to the motor controller's cooling channels. Long-term corrosive damage may result in leakage of coolant inside the motor control system.**

Axle

Maintenance items and technical requirements during wear-in period

No.	Items	Technical requirements
1	Replace rear axle gear oil and clean vent	Specification: API gl-5, added until oil port overflow.
2	Remove and clean all wheel hubs and bearings	The parts are intact and clean.
3	Check the wear condition of each parts	There shall be no cracks, grooves, or oil stains on the surface of the brake drums and discs. The thickness of the brake discs and the inner diameter of the brake drums shall not exceed the operating limit. There shall be no cracks and oil stains on the surface of the brake friction pad, and the limit of the thickness of the friction pad is 1.0.
4	Install, lubricate assembly and adjust hub clearance	The hubs should be flexible and no abnormal noise. Axial clearance should be less than 0.1
5	Check hub bearing	No fracture on the bearing supports, rollers does not fall off, no crack and ablation, No cracks and ablation on the bearing inner rings.
6	Check steering knuckles	The shaft has no ablation, no crack, and no bending
7	Check whether the pressure bearing is relaxed	
8	Check the brake pump	Brake seal is good, return position freely.
9	Adjust brake clearance	The clearance between the brake drum and brake pad is about 0.6

Daily maintenance items and technical requirement

No.	Items	Method
1	Check whether the main reducer of rear axle leaks	Check
2	Check whether the air spring is inflated and whether the air bag pressure is normal	Check
3	Check and adjust the height of air spring and the bushing of each thrust bar	Check, review with tools
4	Check whether the shock absorber leaks oil and whether it works normally.	Check
5	The fastening bolts are not loose, and the leaf springs are not broken.	Check, review with tools

Maintenance items and technical requirement Level 1

No.	Items	Method
1	Lubricating oil level	The oil level of the main reducer is within the prescribed range, and there is no oil leakage in eac seal.
2	Suspension	The fastening bolts are not loose, and the leaf spring of the leaf spring car are not broken, and there is no obvious elastic change. Air bag height of air spring car is normal, no air leakage everywhere, no damage to the surface of the air bag.
3	Half shaft bolt	The half-axle bolt is not loose.

Maintenance items and technical requirement Level 2

No.	Items	Method
1	Remove hub assembly, brake shoe, anchor pin	Clean steering knuckle, bearing, anchor pin, brake base plate, ABS ring gear, ABS sensor and other parts.
2	Check steering knuckle and nut, safety piece, oil seal and knuckle arm, tight device bolts.	l)No crack and damage on the steering knuckle, the thread shall be in good condition and the nu1 shall be free from radial slack, the safety plate shall have good effect, and the oil seal shall be in good condition and no oil leakage. 2)Size of Steering knuckle axle diameter and fit clearance of bearing are less than 0.1, and steering knuckle arm bolts are not loose
3	Check the inner and outer bearings	No fracture on the bearing supports, rollers does not fall oft, no crack and ablation No crack or ablation on the inner base rings of the bearing.
4	Check rear axle sleeve, nut and oil seal	The casing has no cracks and obvious looseness, and there is no radial looseness when it i matched with the nut. The oil seal is in good condition, without loose or leaking oil. The clearance between casing diameter and bearing shall be less than 0.1.
5	Check the sealing condition and operating mechanism, and clean the vent	Good sealing, unobstructed air holes, normal operation of the operating mechanism, no noise. jump gear, random gear phenomenon, and add 2# grease in the soft shaft dust cover.
6	Check and adjust air bag suspension	Adjust the air suspension thrust bar to meet the size of the designed wheelbase, the tolerance between the left and right of the axis is no more than 5, and adjust the height to the design heigh1 of the air bag.

Steering system

Check the oil level of the steering tank before driving every day. Check the rear tank steering tank, tubing joint, steering gear, etc.

Leakage phenomenon, if the steering fluid leak is found, it needs to be repaired in time. If necessary, you can contact the after-sales service personnel of Eurabus.

If the level in the tank is between the "MAX" and "MIN" marking lines, it meets the requirements, if the liquid level is on the "MIN" line or

In the following, the steering fluid must be added so that the liquid level is between the "MAX" and "MIN" marking lines.

Add steering fluid

Regularly check the steering tanks and add the designated oils of Eurabus if necessary.
Acid steering fluid operation steps:

(1) After the car is powered on, turn the steering wheel in place for two to three times, and the power will be cut off after 5 minutes.

(2) Open the rear hatch cover, open the end cover of the steering tank, add the specified steering fluid to "MAX" and tighten the end cover.

(3) Repeat step 1

(4) If the level of oil tank still does not reach the "MIN" line, repeat the above operation.

(5) Tighten the end cover of steering tank.

Change steering fluid

Change steering fluid every 2 years or 120,000km.

Operation method of changing steering fluid:

(1) Remove the oil tank, empty the oil in the oil tank and remove the oil return pipe.

(2) Place the steering return tubing to one end of the steering tank in a suitable container.

(3) With high pressure on the vehicle, turn the steering wheel from one extreme position to another and rotate it back and forth several times. Power off when the steering fluid stops flowing from the steering return line.

(4) Load back into the steering tank and reinstall the steering return tubing onto the steering tank.

(5) Oil the steering tank until MAX line shown on the steering tank.

(6) Start the steering motor and rotate the steering wheel from one dead center to the other several times to expel air from the system.

(7) Recheck the oil level. Repeat steps 5 and 6 until the tank level is between "MIN" and "MAX".

Tire and wheels

Check tire pressure

- Keep the tire pressure at the correct tire pressure. Tire specifications used.
- Check the tire pressure every two weeks or at least every month.

Note!

- **Tire pressure: 900kPa for both front and rear wheels.**
- Incorrect tire pressure can cause energy consumption, reduce driving comfort, reduce tire life and reduce driving safety.
- If the tire needs to be inflated regularly, it should be entrusted to the Eurabus sales and service store for inspection.

Warning! 

- **Keep tire pressure correct. Otherwise, the following will happen and cause a serious accident.**

Low tire pressure (underinflated) :

- Excessive wear
- Abnormal wear
- Hard to control

- The tire overheat caused a leak
- Reduced lip seal of tire
- Wheel distortion or tire separation

High tire pressure (overinflated) :

- Hard to control
- Excessive wear in the center of the wheel pattern
- The hard part of the road is more likely to cause tire damage

When checking tire pressure, follow the instructions below:

- Check the tire pressure only when it is cold. The correct cold tire pressure reading can only be obtained when the vehicle is stopped for at least three hours or when the vehicle is driving for less than 1.5km.
- Use tire pressure gauge. Judging tire pressure by experience can lead to errors that reduce comfort and ease of driving.
- Do not deflate or reduce tire pressure after driving. High tire pressure is normal after driving.
- Make sure the tire valve cover is installed. The valve cover effectively prevents dust or moisture from entering the valve core and prevents air leakage. Replace valve cover if missing.

Check the tires

- If a tire injury such as a cut, fracture, deeper crack in the exposed cord, or expansion is found, it indicates an internal injury and needs to be replaced.
- Replace a tire if it often leaks air or is not suitable for repair due to cuts and other injuries in size and position. If you are not sure, please contact Eurabus special service station.
- If there is a leak while driving, do not continue driving. Tire deterioration can occur even if the tire is unused or infrequently used.

Tire replacement

When replacing tires, use tires of the same type and size as specified.

The use of any other size or type of tire will seriously affect the driving, riding, speedometer/odometer calibration, ground distance and the distance between the body and the tire or anti-skid chain.

Warning 

- **Please follow the instructions below. Otherwise, it could lead to serious accidents.**
- **Do not mix radial tires or twill ply tires on the vehicle, otherwise it will cause the typical handling hazards and lead to loss of control of the vehicle.**
- **Do not use tires other than the manufacturer's size. Otherwise it will cause typical maneuvering hazards and cause the vehicle to lose control.**
- **Do not use old tires.**
- **Do not use tires of unknown provenance, it is dangerous!**
- **The front wheel ACTS as the steering wheel and the retread tire is not allowed.**

Tire transposition

In order to maintain the same wear and tear of the tire and extend the service life of the tire, the tire shall be transposed for every 15,000km of driving.

Principles of fetal transposition:

- When rear wheels are equipped with dual tires, tires with an outside diameter difference o1 more than 12mm shall not be installed. When installing two tires with a diameter difference les! than 12mm, install the smaller tire inside.
- When installing a double tire, separate the valve cores of the inner and outer tires to replenish compressed air.
- The front wheels should be fitted with a balanced wear - resistant and less worn tire.
- After transposition, the rotation direction of the tire should be opposite to that before transposition.
- The same axle can only be installed on the same size specifications of tires, prohibit the installation of different sizes of tires on the same axle, otherwise it will cause braking deviation, body swing or steering out of control.
- New tires must be used in pairs and should initially be mounted on the front wheels.
- Check for scratches on the threads of hub bolts and wheel nuts. For safety reasons, when threads on either side are damaged, they need to be replaced in pairs, since the other side may also be damaged.
- Check the tire contact surface for deformation and damage. lf the contact surface or mounting hole is deformed or damaged, the tire must be replaced.

Check and replace wheels

- If the wheels are bent, cracked, or severely corroded, replace them immediately.
- If a damaged wheel is not replaced; the tire may detach from the wheel or cause the vehicle to lose control.
- When replacing wheels, use wheels of the same type and size.
- Wheels of different sizes or types have adverse effects on brake cooling, speedometer/odometer calibration, braking performance, headlight alignment, bumper height, vehicle off-ground height, and the separation of tires from the body and chassis.

Attention of aluminum alloy rim

- It is recommended to use aluminum alloy rim with correct specification.
- For vehicles with aluminum alloy rims, check whether the wheel nuts are tightened when driving between 1,000 and 5,000km.
- If a tire is rotated, repaired, or replaced, check that the wheel nut is tightened between approximately 1,000km and 5,000km.

Note!

- **The aluminum alloy rim nut torque is 650 SO Nm.**
- **Inspect aluminum alloy rim regularly for damage. If any damage is found, it must be replaced immediately.**

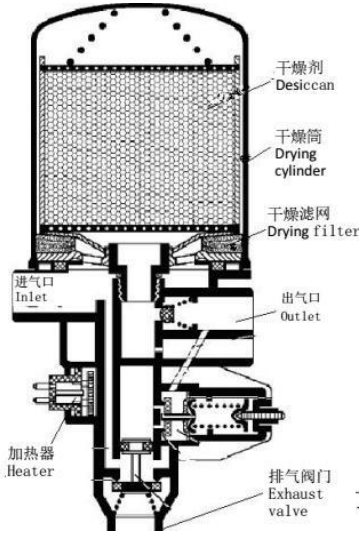
The braking system

Inspection of free travel of brake pedal

- Tap the brake pedal and check its free travel. The normal value is 14-20mm.
- When the brake pedal is pressed to the bottom, there should be no acerbity.
- Exhaust sound shall be emitted when the brake pedal is released.

Air dryer maintenance

- Check the air cylinder and replace the filter element of the dryer if the water discharged by the drain valve is muddy.
- Remove and inspect filters and replace desiccant, oil filter and all rubber parts with repair kits.
- Inspection of air dryer after assembly: after replacing the filter element, the residual pressure and water in the ai1 cylinder should be released. Start the empty air compressor, check the working condition of air dryer, check whethe1 there is air leakage in each joint. After filling the air reservoir, release the compressed gas from the air cylinder and check whether the water is exhausted



Key torque table of vehicle

Table of metric ISO thread default torque

Tightening torque (N-m)

Specification	Level 8.8	Level 10.9	Level 12.9
M4	2.8	4.1	4.8
MS	5.5	8.1	9.5
M6	9.5	14	16.5
M7	15.5	23	27
M8	23	34	40
MlO	46	68	79
M12	79	117	135
M14	125	185	215
M16	195	280	330
M18	280	390	460
M20	390	560	650
M22	530	750	880

Specification	Level 8.8	Level 10.9	Level 12.9
M24	670	960	1120
M27	1000	1400	1650
M30	1350	1900	2250
M33	1850	2600	3000
M36	2350	3300	3900
M39	3000	4300	5100

Maintenance certificate

First maintenance certificate

	First maintenance date	Vehicle mileage	Maintenance/fault description	Maintenance items	Special maintenance station seal
Document pasting					

List of first maintenance inspection items

License plate			Vehicle model		VIN number	
Mileage			Check the technician		Check the time	
Parts	**Number**	**Project**			**Inspection result**	**Treatment measures**
Drive motor	1	Check the drive motor high voltage cable is fixed				
	2	Check whether the high voltage wiring harness of the driving motor is damaged or interfered				
	3	Check whether there is any coolant leakage in the cooling system of the drive motor, and add it if necessary				
	4	Check and tighten drive motor support fastening studs				
	5	Check the connectors of gear shift mechanism				
	6	Check the pipeline and joint sealing of gear shift mechanism				
Trans-mission shaft	7	Check and tighten transmission shaft coupling studs				
	8	Check and tighten bolts and nuts on all parts of front axle				
	9	Check and tighten rear axle housing with differential and half shaft bolt mother				

Trans-mission shaft	10	Tighten wheel nut		
	11	Universal joint wear inspection		
Brake	12	Check and adjust the brake pedal free strake		
	13	Whether all kinds of valve bodies work normally		
	14	Check the braking system of the vehicle		
	15	Check whether the brake connecting pipe and connecting nut are normal		
	16	Check the nuts fastening the front and rear brake plates		
Steering system	17	Check power steering oil level and filter element		
	18	Check steering system and power steering hydraulic system		
	19	Check the connecting bolts of each joint of the tightening steering mechanism and add grease to the lubrication point		
	20	Check the electric steering pump high - voltage connection is secure		
Chassis	21	Check the bolts and nuts fastening the connection between the body and the chassis Check the bolts and nuts fastening the connection between the body and the chassis		

chassis	22	inspection for oil and gas leakage of the whole vehicle		
	23	check the shock absorber for looseness		
	24	check air bag and piping		
	25	check the fastening of the drive shaft cross shaft u bolts, intermediate support universal joint u bolts and other driving part bolts		
	26	check whether the pump is working normally		
	27	check the pump line and joint sealing		
	28	Check the high voltage line of pump for any interference		
Electrical high voltage section	29	Check hv wiring harness, connector connection and insulation resistance of hv control cabinet		
	30	check wiring harness, connector connection and insulation resistance of controller		
	31	Check motor controller wiring harness, connector connection, insulation resistance		
	32	Check the wiring harness, connector connection and insulation resistance of the pump		
	33	Check de/de wiring harness, connector connection, insulation resistance		

Electrical high voltage section	34	Check wire harness, connector connection and insulation resistance of electric defroster		
	35	Check the connection and insulation resistance of high voltage connector of power battery		
	36	Motor three-phase wire bolt fastening, connector connection, insulation resistance		
	37	Check the working condition of all lights and every instrument		
	38	Check whether the work of horn and wiper is normal		
	39	Clean air conditioner evaporator filter and condenser		
	40	check and adjust the empty belt tension		
	41	Front/middle door, whether the switch speed is normal		
	42	front/middle door, door opening is normal		
	43	various switches and control boxes/modules		
	44	all kinds of sensors and solenoid valves		
	45	audio surveillance check		
	46	Check and test the battery (if any test report, please paste it on the back of this test sheet).	No. 1 battery voltage____ v, electric quantity____ , whether it is normal or not	

			No. 2 battery voltage____ v, electric quantity____ , whether it is normal or not____	
Vehicle inspection	47	Whether the armrest, seat, luggage rack and air duct are loose		
	48	whether the air conditioning is normal		
	49	Whether the vehicle tools and accessories are complete		
	50	Whether the heat dissipation of warm air is normal		
Clean	51	Dust removal is performed on the appearance of all battery compartments and electrical components in the warehouse. (blowing)		

Note: please carry out this checklist with national high voltage certification and professional training.

Customer signature:

Confirm inspection items:

Data:

Data: Service stamp

Maintenance record

Routine maintenance certificate

Routine maintenance record	
Maintenance date:	
Maintenance mileage	
Mileage of next maintenance:	
User signature:	
Service stamp:	

Warranty/maintenance record

<table>
<tr><td rowspan="6">Document pasting</td><td>Maintenance date</td><td>Maintenance / fault description</td><td>Maintenance project</td><td>Special repair service stamp</td></tr>
<tr><td rowspan="2"></td><td></td><td></td><td rowspan="6"></td></tr>
<tr><td></td><td></td></tr>
<tr><td>Vehicle mileage</td><td></td><td></td></tr>
<tr><td rowspan="2"></td><td></td><td></td></tr>
<tr><td></td><td></td></tr>
</table>

Odometer replacement registration form

If the odometer is damaged, pleasego to the**special maintenance station of Eurabus** to replace the combination meter.

Combination meter replacement record	
Change date:	
Old odometer reading (km)	
New odometer reading (km)	
Service person Name:	
Service stamp:	

Note: If the odometer is damaged, the non-operating vehicle calculates the accumulated mileage at 60 km/day,and the operating vehicle calculates the accumulated mileage at 200 km/day.

eurabus
DRIVEN BY ELECTRIC POWER

User change record

User change (transfer) record

Old user: _____	The contact: _____
Old user address: _____	postal code: _____
Old user phone: _____	purpose of usage: _____
New user: _____	The contact: _____
New user address: _____	postal code: _____
New user tel: _____	purpose of usage: _____

change date	Mileage change	models	VIN numbers	License number	The registrar

Note: if the user information needs to be changed, the service station shall fill in the form completely and stamp the service business stamp before the form takes effect.

End of the Document

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