AXIOS

OWNERS MANUAL & OPERATING INSTRUCTIONS

C ONTENT S

Introduction to Axios carts

Thankyou for your purchase of a Axios cart Electric vehicle. In order to use them better, please read the operating instructions thoroughly.

After reading, please keep it properly for future reference.

use and scope of Application

The electric golf cart is an environment-friendly passenger vehicle specially developed by our company for golf courses and can also be used in resorts, villa areas, garden hotels, tourist attractions, and other places. with excellent performance, novel appearance design, luxurious and exquisite interior decoration, comfortable and safe driving, it is the ideal electric vehicle.


10:00 AM
10:00 AM
2025/05/22 Thursday
Enjoy Music
File Manager
Gallery
Car Info
Video
BT Music
Settings
Navi
BT Call
Radio
Music
POWER
D
N
R
STOP
GO

Functions of Control Mechanism

Turn on the power switch

1. Pull up the power switch lever to the "RUN" position to turn on the power supply of the complete vehicle.
2. Pull the power switch lever to the middle position to turn off the power supply of the complete vehicle.
3. Pull down the power switch lever to the "EMB" position to release electromagnetism, and push the complete vehicle

Power Start & Lock

1. Check gear switch to and make sure switch is set to the middle parking position. Push and hold start button for 3 seconds for cart to start
2. To turn off place cart in park position with the gear switch. Hold start button for 3 seconds and cart will shut off and magnetic brake will set.

Gear Switch

Located on the steering column the gear switch toggles motion direction of carts. Toggle upward the cart is in forward gear, toggle backward and cart is in reverse. Set toggle to the middle the cart is positioned for park. Once reverse is selected the buzzer alarm will be sent.

Combination instrument

Select the gear, put right foot on accelerator pedal and slowly press the pedal to start the vehicle after pressing the start button on the vehicle.

****** Please be familiar with all operations before driving, strictly abide by the operation process and avoid illegal operation!***

Brake pedal

When you need to slow the vehicle down while driving, move your right foot to the brake pedal and gently press the brake pedal to slow down the vehicle until it stops.

Steering wheel

Controls the driving direction of the vehicle.

Combination instrument

This instrument serves as a terminal display for the vehicle's battery information, motor controller information, and electrical light indicators. The practical application scheme supports a mixed application of analog acquisition systems, CAN bus communication systems, and analog volume acquisition.

Combination switch

1. Turn signal lamp: When turning the lever forward, the left turn signal lamp flickers, and the left turn signal indicator lamp lights up on the dashboard at this time. When turning the lever backward, the right turn signal indicator lamp lights up.

2. Low beam: The front half end of the lever can be turned. After the vehicle starts, turn the lever forward for two gears to turn on the low beam. Turn the lever backward to turn off the low beam.

3. High beam: Lift the lever (steering wheel surface) to turn on the high beam. After releasing the lever, the lever will be automatically reset, and the high beam turns off at this time. Turn on the low beam first, and then lift the lever. At this time, the lever will not be automatically reset, thus realizing the permanent lighting of the high beam.

4. Horn: The head end of the lever is a horn button, which can be pressed lightly.

****** Please be familiar with all operations before driving, strictly abide by the operation process and avoid illegal operation!***

Dashboard

1: One-click Start

2: Forward/Backward Switch

3: Hazard Alarm Switch

4: Speed Display

5: USB Interface

6: Wireless Charging Station

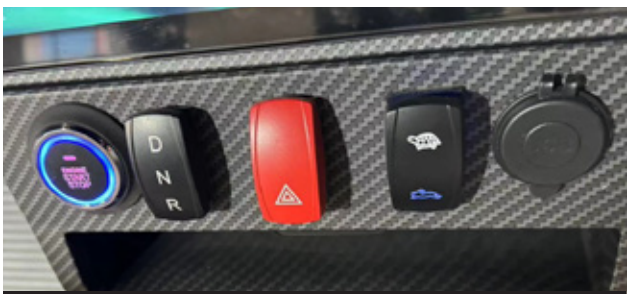
7: Multimedia Display

8: Lights/Turn Signals

9: Steering wheel

10: Adjustable steering column

11: Storage box



Push Button Starter

Brake & Accelerator Pedals

LCD Screen Display

1: Menu 2: Volume Up 3: Home Screen 4: Volume Down

5: Screen Rotate

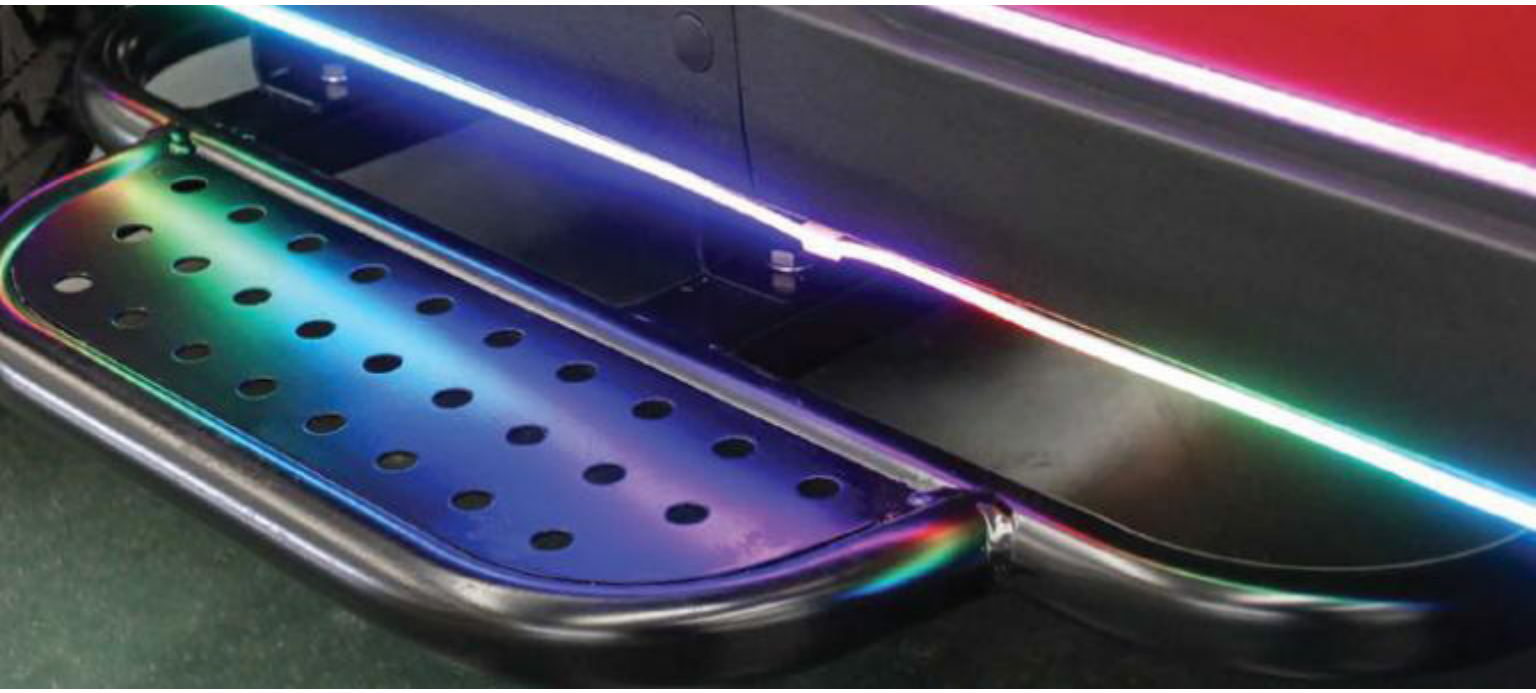
Codes of Safety Practice

The driver must fully understand the technical performance, control mechanism and operating procedures of the vehicle, and abide by the following codes of safety practice:

****** The vehicle is an off and on-road vehicle.***

****** Do not overload while driving, so as to avoid potential safety hazards like reduced brake performance.***

****** Unqualified personnel are not allowed to drive the vehicle. Please drive within the approved slope range. In accordance to law driver must be at least 16 years of age with a valid drivers license.***



Maintenance and Repair

Maintenance of electric vehicles is very important, which is directly related to the driving performance and service life of electric vehicles. Therefore, users must abide by the following maintenance rules.

Batteries are very important, because they provide the overall power source for the complete vehicle, just like the heart of electric vehicles.

1.1 Lithium-Ion Battery

This section in the instruction manual applies to the lithium-ion power battery, including the necessary tasks and steps of the power battery.

This instruction manual is suitable for customers, professionals, and qualified personnel. Personnel performing the following tasks must read and use this manual, and carefully check the battery nameplate information (including model, weight, etc.).

1.2 Battery Maintenance

Batteries serve as the primary power source for all electric vehicles. The following section provides information for lead-acid batteries.

The battery surface, connecting wires, and bolts should be kept clean and dry for an extended period. If there is any electrolyte present, it should be wiped off with a clean rag, rinsed with water, and dried. During cleaning, ensure that tap water does not enter the battery to avoid electrical leakage and increased self-discharge, which could cause vehicle operation failure.

The battery must be securely connected. Frequently check for rust on the connecting ends of the battery wiring and ensure the clamp nut is not loose to prevent heating, sparking, and burning of the pole due to poor connections. ***The other end of the wrench used for the clamp nut should be wrapped with tape to prevent a short circuit that would be caused by an improper connection.***

Placing any object on the battery is prohibited, and directly connecting the anode and cathode is strictly forbidden to avoid short circuits and battery damage.

After the battery is discharged, it must be charged promptly to ensure slow discharge and frequent charging. The battery should be charged on the day it is used. Charging the next day or after more than 24 hours is not recommended, as it will shorten the battery's service life.

When the vehicle is driven in the summer and the battery temperature is high, do not charge it immediately. Wait until the unit cools down before charging. Avoid charging the battery in direct sunlight.

In the winter, when temperatures are very low, the battery's charging and discharging performance will decline. Therefore, the battery should be charged in an enclosed area if possible.

Use the special charger designed for the vehicle to charge the battery. Using other chargers may damage the battery.

Keep the battery clean and free of any foreign matter. Ensure that the appliances used for adding water are clean to prevent impurities from entering the battery and affecting its performance.

While driving, the driver should continuously monitor the voltmeter/voltameter on the instrument deck. If the indicator drops to the red area, it means the battery capacity is depleted, and the vehicle must be stopped and charged promptly.

If the vehicle is not used for an extended period, the battery should be fully charged and stored, with the charge replenished every month and a half.

Ensure proper ventilation in the charging area. During charging, keep the battery cover tightly closed and away from open flames.

Throughout usage, it is recommended to perform a monthly even charge of the batteries.

1.3 Emergency handling

Step 1: Leave the vehicle quickly and call the police according to the situation on the scene.

Step 2: Under the condition of ensuring the safety of personnel, conditionally carry out the following operations: if the battery wiring harness is on fire, use carbon dioxide or dry powder fire extinguisher to extinguish the fire; If the battery is on fire, use a high-pressure water gun to extinguish the fire from a distance. If smoke is inhaled, transfer the battery to a doctor as soon as possible.

Step 3: Notify your Axios Cart dealer of the vehicle to obtain further treatment opinions.

Tip: If the fire is caused by abnormal charging, be sure to cut off the power supply at the first time before performing the next fire extinguishing action.

1.4 Safety Instruction

Disassembly whithout training or authorization is strictly prohibited

Do not flush or close to a heat source

It is forbidden to short-circuit the positive and negativepoles

keep away from inflammable and explosive objects

Beware of high voltage electric shock

Recycling,no littering

1.6 Environmental Protection

Customers should comply with the following requirements when recycling products: It should comply with the specific environmental protection regulations of the country or region where the product is used.

The waste parts and components should be turned over to a local business which has a state-approved business to recycle and dispose of them. The classification and collection of this product.

2.1 Use Method and Precautions of Charging

The charging systems on Axios Carts are designed to be fully automatic and user-friendly. All Axios Carts come standard with an onboard charger.

When connecting the 110V input power supply, it is important to ensure that the input line model matches the input current to prevent overloading.

Connect the output plug to the vehicle

Once the input and output lines are connected, the red indicator light will flicker as the charger performs self-inspection. After completing this inspection, the green indicator light will flicker, indicating that charging has commenced.

During the charging process:

- The green light will flicker slowly when the battery capacity is below 80%.
- The green light will flicker quickly when the battery capacity exceeds 80%.
- When the battery reaches full capacity (100%), the green light will remain steadily on, and the charger will automatically stop charging to prevent overcharging.

The charger includes its own discharge protection feature. When the discharge termination point is reached, the vehicle will initially limit its speed to reduce the battery discharge current. If the vehicle is not promptly recharged, further protective measures will be activated to prevent operation.

It is important to note that non-electrical workers should not attempt to dismantle or replace the charger.

During charging, if the grid voltage is too high or too low (outside the range of 110V), the charger will activate automatic protection measures. Simultaneously, the fault indicator lamp will illuminate to alert the user.

Once the voltage returns to the normal range, the charger will automatically resume the charging process.

****** Hydrogen gas can be released from the battery during charging, so it is crucial to ensure that the charging area is well-ventilated. It is also important to avoid open flames and sparks in the vicinity to prevent any potential hazards.***

Do not use the charger after accidental water inflow. The charger can be used in environments ranging from 14° F - 113° F.

2.2 Maintenance and Repair of Traction Motor

1. The motor of the vehicle can work normally within the nominal working voltage range of the battery pack.
2. The motor is not allowed to idle, and the terminals cannot be short- circuited externally.
3. The air should not contain explosive gas.
4. Frequently remove the sediment and other adhesions on the motor shell so as not to affect the heat dissipation.
5. Check the carbon brushes of DC system motors every three months, and replace the severely worn carbon brushes and invalid carbon brush compression springs in time.

Common Faults and Causes of AC Motor

S/N	Fault	Cause
1	Abnormal noise of motor	Motor bearing damage
2	The motor vibrates greatly	The bearing gap is to large
3	The motor cannot turn but it rings	Power supply failure
4	No rotation and abnormal sound	Excessive load or stuck bearing
5	The motor overheating	High voltage or motor overload
6	The motor bearing is overheated	Motor shaft bending

2.3 Maintenance and repair of electronic control gear

The electronic control gear used in the vehicle is an original imported product, and high-frequency MOS technology is adopted to realize smooth, silent, efficient and energy-saving vehicle speed, torque and brake control.

- **To prevent runaway upon starting, when the vehicle starts, if the controller detects that the pedal input signal is greater than 20%, it will trigger the controller protection function (HPD) and the controller will prohibit the output.**
- **The microprocessor is powered on for self-inspection and subject to continuous diagnosis during operation. In case of any fault, the controller will stop output immediately, thus protecting the operator and the vehicle comprehensively.**
- **The AC controller also has temperature monitoring and protection functions to effectively prevent the motor from high temperature and avoid damaging the motor.**

1. **Regular maintenance**

   a. Check whether the contact between contactor contacts is good, whether there is adhesion or open circuit, whether there are sundries and ablation between contacts, and whether the moving contact is mechanically stuck.

   b. Check whether the microswitch in the accelerator has good on-off performance.

   c. Check whether the on-off performance of the direction switch is good. (CVT vehicle).

d. Check whether the connection between the motor, battery pack and controller unit is good. Note: Check in case of power failure.

e. Check and keep the electric control, motor and battery pack clean.

The above checks shall be conducted at least once every three months. After turning off the power, the filter capacitor in the controller unit should be kept discharging for several minutes. Do not flush the electrical components with water! Clean brush or high-pressure gas can be used to remove dust.

2. Fault characteristics and possible causes:

Fault Characteristic	Possible Cause
The vehicle cannot start	(I) The controller has no power supply (II) The signal is not transmitted to the controller (III) The contact is bonded. (IV) The motor or controller is damaged. (V) The phase sequence of the motor encoder is wrong or damaged (VI) The motor or controller is in temperature protection state (VII) The electromagnetic brake is locked
The vehicle only moves forward and cannot move backward or only moves backward and cannot move forward	(I) The direction switch is damaged, or the line is disconnected (CVT vehicle) (II) The insert on reverse contactor is loose (CVT vehicle) (III) The reverse contactor is damaged (CVT vehicle)
The maximum speed slows down	(I) The battery is about to run out (II) The hand brake is forgot to release, or the brake shoes are not reset (III) The accelerator pedal is faulty (IV) The controller is faulty (V) Excessive load (VI) The motor or controller is in temperature protection state (VII) Abnormal motor encoder

2.4 Brake part

1. Press the brake pedal with a force of about 66pf, and the pedal stroke shall not exceed 2/3 of the total stroke.

2. Regularly check and replace brake shoes and fill lubricating oil in the brake hub bearing.

2.5 Lubrication and maintenance of complete vehicle

1. The brake fluid used for ex-factory is Like 901 automobile brake fluid, and it is forbidden to mix and use different brands of brake fluid.

2. 85W/90 GL hypoid gear oil is used for gearbox and rear axle, and the filling amount is 27 oz.

3. Main lubricating points: Fill butter in steering gear box, tie rod, steering knuckle and bearing parts.

2.6 Running-in of new vehicle

To ensure the use performance of the vehicle, improve the reliability of the complete vehicle and prolong the service life of the complete vehicle, the parts should be subject to running-in before the vehicle works at the maximum load. It is stipulated that the running-in period of new vehicle is one month or 621 miles, which should be carried out according to the following specifications:

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1. Before the running-in of a new vehicle, it is required to carefully check the capacity of oil, electrolyte and brake fluid. If it is insufficient, it should be filled according to regulations; tires should meet 215x35-14, and the air pressure should be 30 PSI.

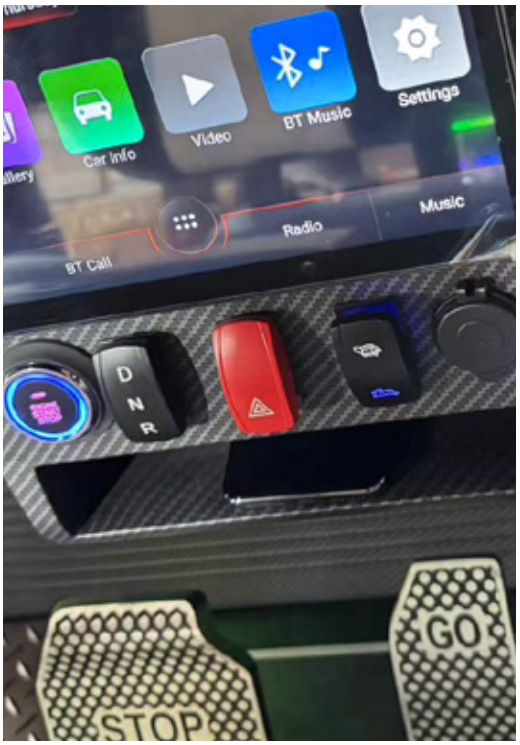
2. Only drive on highways approved and licenced by the municipality.

3. Always check the fastening of connecting parts, and tighten them if they are loose.

****** Precautions:***

1. Check the rear powertrain every three months and fill or replace grease.

2. Check the wear of brake shoes every three months, and adjust and replace them in time in case of any problem.



4. Check the fastening of the electrical system once a month, especially the connection between large current circuits, such as battery, motor and electric control, and keep it in good condition. At the same time, the contact state of the contact parts should be checked, any defect found should be corrected in time, and deposited dust should be removed in time.

5. As the electrical contact is not in good contact, it will heat up, so we should usually pay attention to the heating state at the contact point.

6. When changing the fuse, check whether the rated current of the new fuse is correct.

7. During maintenance and repair of the vehicle, in order to ensure safety, the positive and negative power cables of the battery pack should be removed.

8. It is strictly forbidden to slam on the accelerator or inching the accelerator frequently, so as not to damage the accelerator and shorten the service life of the electronic control gear.

9. Drive safely. It is forbidden to drive at high speed when going downhill. Slow down when turning, and remind passengers to pull handrails when turning and going downhill to avoid safety accidents.

10. Children are strictly forbidden to play in the vehicle. Children should sit in the middle position and be cared for by adults to avoid children falling from the vehicle.

11. Fuse Location:

Plug-in accessory fuses are centrally installed in the fuse box on the left side of the car.

There are six fuses for the DC system and six fuses for the AC system. One bayonet main fuse is installed on the lower controller moutning plate rear seat.

12. Please conduct regular maintenance according to the table below and next page:

Item	Maintenance content	Daily inspection	Weekly inspection	Monthly inspection	Quarterly inspection	Semiannual inspection
Battery maintenance	1. Charge (daily).	√				
	2. Cover the battery cover tightly during charging.	√				
	3. Fasten the battery pole nut.		√			
	4.Prevent the battery from over-discharging (the voltmeter is still on when it indicates the red area).	√				
	5. Check whether the battery is fully charged. Method: a. Look at the charger indicator; b. Measure specific gravity; c. Look at the voltmeter.	√				
	6. Wipe the battery surface to remove the dirt on the surface.		√			
Charger	7.Observe the working condition of the charger and check the heating condition of the charger socket.	√				
	8. Remove dust from the shell. No water is allowed to enter.		√			

Electronic control gear motor	11.Fastening of each connection point (note: it should be carried out in power-off state).			√		
	12. Clean up external dust.				√	
	13. whether the plug pin is loose.					√
Electronic control gear motor	14. Check whether there is water entering and check the heating condition.	√				
	15. The electromagnetic brake fails to lock.					√
	16. Whether the accelerator pedal is flexible and reliable and reset.	√				
	17. Wear of brake drum and friction plate, and adjustment of hand brake.				√	
	18. Brake hoses and pipes (oil leakage and damage).			√		
	19. Brake fluid (liquid level, with or without leakage).			√		
	20. Tires and clamp nuts (tread wear, air pressure, tightness of nuts).		√			
	21. Shock absorber (oil leakage, inelasticity and abnormal noise).			√		
	22. Drive shaft bolts (fastening).			√		
	23. Change the oil of the rear axle gear.		Change the oil of a new vehicle once a month or per 621 miles, change the oil for the second time after two months, and then change the oil every six months.			
	24. Add lubricating oil to steering gear box and hub bearings.				√	
	25. Front and rear suspension (tightness, abnormal noise, rupture) and toe-in adjustment.				√	
	26. Clean the surfaces of vehicle body, seat, motor and controller.	√				
	27. Road test.	Road test must be carried out after each maintenance operation to observe the condition of each part.				

Storage

When electric vehicles are not used for a long time, they should be stored in a cool, dry and ventilated environment according to the requirements of electrical products to prevent sun, rain, dust, etc.

After-Sales Service

Thank you for choosing our Axios Carts. In addition to products, you will also receive technical support and services provided by our company. Our service technician is to provide you with fast and professional technical services. Contact your local Axios Cart Dealer

Warranty provisions

1. Please review our warranty statement provided at time of sale,

It refers to that for non-human (use or improper operation and maintenance) failure or damage of parts (loss of use function) within the specified use conditions and time limit, our company will repair or replace the corresponding parts for users free of charge to ensure the normal operation of the vehicle.

Please understand that the parts replaced within the warranty period will not be returned to the users.

2. Warranty period

The complete vehicle is guaranteed for 2 years (except quick-wear parts).

3. Warranty conditions

- **All parts must be original parts of our company and within the warranty period.**
- **There is no warranty under the following circumstances:**
  - Damage is caused by the users' failure to use according to the instructions or improper storage.

- Parts damage is caused by disassembly and maintenance of users.

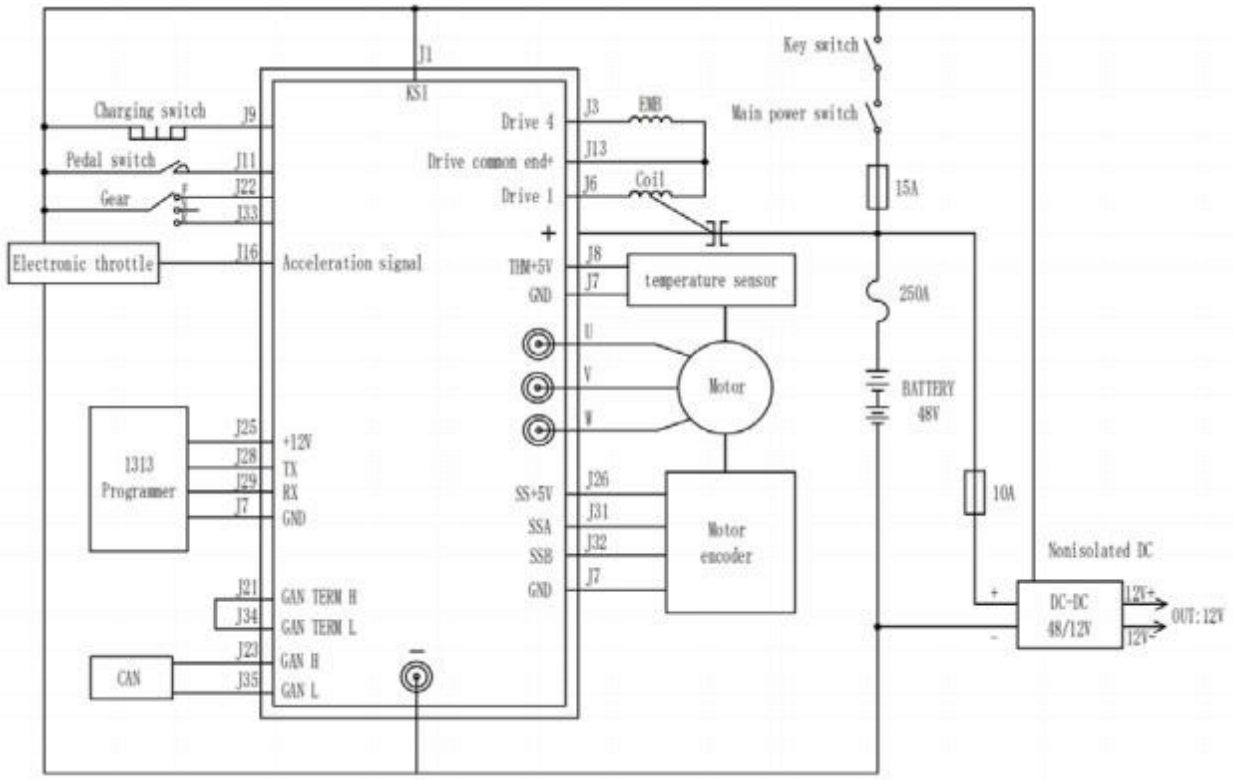
- Parts damage, parts theft or loss is caused by natural disasters and accidents.

- Quick-wear parts are not covered by the warranty, such as bulbs, fuses, brake pads, glass products, connectors, tires etc.

4. Determination of warranty period

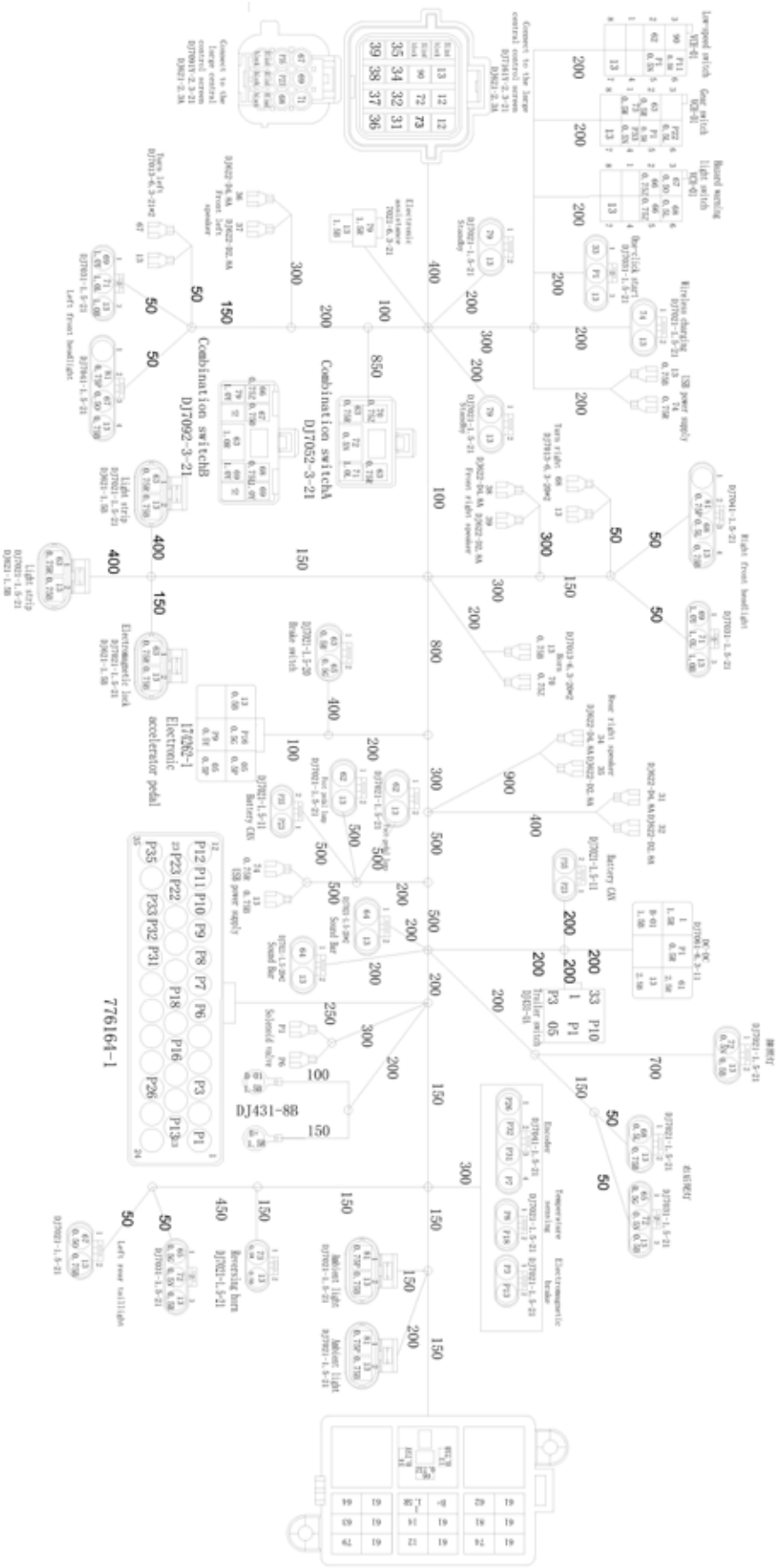
Valid user warranty and copy of purchase invoice are used as vouchers. If the above vouchers cannot be provided, the Company will calculate the date with the product ex-factory number.

LineAssembly Drawing



Standard wiring diagram for the Curtis 1232 SER controller

Controller Maintenance Process



Controller Maintenance Process

LED Display Information Description	
Two LED indicator lamps are not on	The controller power is not connected or the vehicle battery runs out or other major faults
The yellow LED flickers	The controller works normally
The yellow and red LEDs are normally on	The controller is in program load status
The red LED is normallyon	Check whether it is invalid or the software is not installed with restart key, switch; if restart is required,the software should be reinstalled.
The red and yellow LEDs flicker alternatively	If the controller is faulty, reading is required according to lamp flicker at this time; fault code value needs to be read. The fault code consists of two digits. The permanent order is: Red first and yellow later. Red lamp flicker indicates digit position. Yellow iamp ficker indicates specific value of corresponding digit. If the red lamp flickers once, it indicates that the corresponding code digit is the tens place of digit and if the red lamp flickers twice, it indicates the ones place of digit. For example, if the red lamp flickers once and the yellow lamp flickers three times, it indicates that the value of tens place of digit is 3. Then,ifthe red lamp flickers twice and the yellow lamp flickers once, it indicates that the value of ones place of digit is 1. Therefore, the complete fault code is 31. The signal lamp can display multiple faults. The code value can be read successively with this method.

Replacement and Repair of Braking Components

Rear Axle Gear Oil: Replace every 10,000 - 20,000 km.

Brake Fluid: Replace every 2 years.

Brake Discs: Replace if the surface is unevenly worn.

Brake Calipers: Repair or replace if loose, shaky, sticking, or failing to retract.

Brake Pads: Replace when worn down to 2 - 3 mm remaining.

Brake Hoses: Replace if surface cracks are present.

Ball Joints: No maintenance required. Replace if abnormal noise occurs.

Shock Absorbers: No lubrication required for other parts. Replace only if an oil leak is evident (indicated by oil stains on the surface).

Please also refer to the Warranty and Maintenance Manual for other requirements.

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