

Operation Manual for **202AKR Series EEC approved Golf Cart**



Preface

Thanks for purchasing our electric vehicle. This manual contains information for proper operating, maintaining and caring of your electric vehicle. A thorough understanding of this manual will help you to obtain maximum enjoyment from this electric vehicle. Please keep it properly for future reference.

Important Information:

Particularly important information is distinguished by the following notations:

WARNING!

Fail to follow Warning instructions could result in severe injury to the vehicle occupants, bystanders or persons inspecting or repairing the vehicle.

CAUTION!

Fail to follow Caution instructions could cause damage to the vehicle.

Special Notices:

Because the seat & backrest wrapping film may stick to the seat vinyl and cause seat vinyl fading or being stained, please remove the seat & backrest wrapping film when you start to use the vehicle!

If you have to stock the vehicle for a long time, please also remove the seat & backrest wrapping film.

Pictures for reference!!



**EG202AKR
(L6e)**



**EG204AKR
(L7e)**



EG204AHCXR (L7e)

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1. OVERVIEW

This vehicle is manufactured under the EU standard and requirement of category L7e and L6e ((L6e: EG202AKR, L7e: EG204AKR/EG204AHCXR) . It's a street legal vehicle, and can be driven on public road after registered in local transportation authority. It's ideal vehicle for short travel.

WARNING!

Before drive the vehicle on public road, please always register it in local transportation authority and get the license plate. Only drive the vehicle in the proper public road.

WARNING!

Please always be sure of whether there is any restriction in the area where you intend to use the vehicle to avoid any unpleasant experience.

IMPORTANT LABELS

SAFETY LABEL

Read carefully and understand the contents on the safety label attached on the vehicle.

SAFETY and OPERATING INSTRUCTIONS

WARNING! Failure to comply with all safety warnings may cause bodily injury to the vehicle operator passengers.

- Keep entire body in vehicle and hold on when vehicle is in motion.
- Only qualified people should operate this vehicle.
- Do not operate this vehicle while under the influence of drugs or alcohol.
- Make sure all passengers are securely seated before driving.
- Apply park brake into the locked position when the car is parked or unattended.

Label Above is attached on the dash panel as below:



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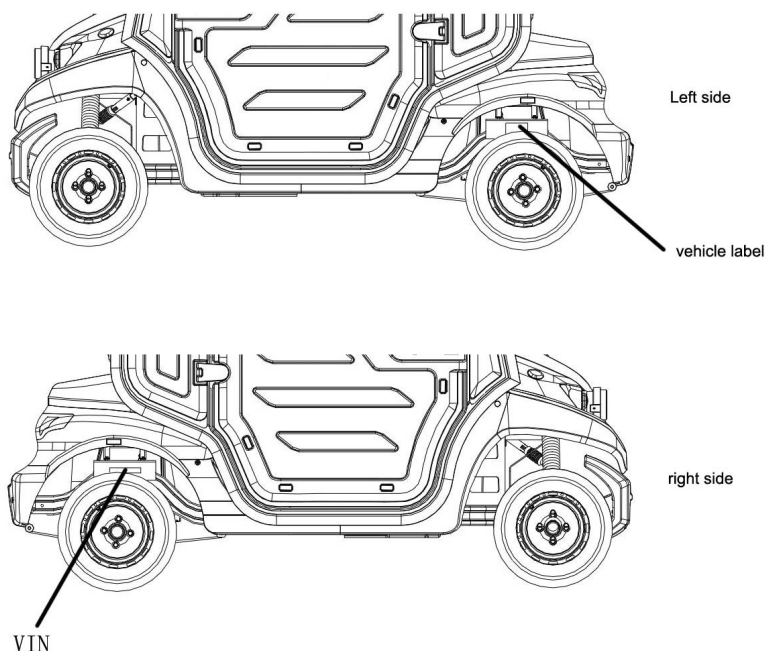
Vehicle Information (Name Plate)

The name plate is at the low part of the dashboard as below Fig.1



Fig.1

VIN plate and Vehicle label plate



2. SAFE OPERATION INSTRUCTIONS

Our electric vehicle is designed for simple operation; however, please make sure to observe following safe operation instructions:

BEFORE OPERATING THE VEHICLE:

- ALWAYS read this first before you start driving the vehicle.
- ONLY authorized people should drive this vehicle, from the driver's side ONLY.
- Do not drive this vehicle on public road before it registered and adhered with the license plate.

- Drive the vehicle ONLY in areas where it is allowed to use by law or regulations and the conditions are safe to do so.
- DO NOT allow more than the designed people on the vehicle.
- DO NOT overload the vehicle in any case otherwise the motor may be damaged, the vehicle may also lose control and the driver and passengers will be positioned in danger.
- DO NOT operate the vehicle while under the influence of alcohol otherwise, their effect on vision and judgment will put the driver and passenger in danger.
- DO NOT make the vehicle climb any slope beyond its grade ability.
- It is not allowed to modify or install additional accessory to the vehicle privately.
- Limit the speed of the vehicle to 15km/h or less when make the turns
- DO NOT Overtake other vehicles at crossroads or any dangerous areas.
- Always fasten the safety belt properly before the vehicle moves under following instructions:
 - 1) Be certain the seat belts are latched securely and not twisted;
 - 2) Position the shoulder belt across the top of the shoulder. Do not place the shoulder belt under an arm;
 - 3) Loose fitting safety belts significantly reduce protection. Keep belts snug and positioned low on the hips;
 - 4) Do not exceed the recommended number of occupants for the vehicle;
 - 5) Bench seats are designed for two occupants only.

WARNING!

Information about the seat belts:

- Seat belts must not get stuck, twisted or rub against sharp edges.
- The correct orientation of the seat belt has a great influence on the best protection of the seat belt.
- Never use a seat belt for two people (include children).
- The seat belt protection can be maximized only when the sitting position is correct.
- Do not wrap the belt around hard or fragile items (such as glasses, ballpoint pens, keychains) as this may result in personal injury.
- Heavy and loose clothing (such as a coat over a jacket) may prevent you from sitting in a proper position and affecting the function of the seat belt.

- Do not use a clip or other item to adjust the seat belt (for example, passenger should adjust the length of the seat belts according to their own stature).
- Only buckle up the seat belts to the lock which it belongs. Wearing the seat belt incorrectly can affect its protection and increase the risk of personal injury.
- The seat belt must be kept clean. A dirty seat belt can affect the function of the seat belt automatic retracting device.
- The lock device of the seat belt must not be blocked by paper or the like, otherwise the lock device will not be locked.
- Please check the seat belt regularly.
- Do not disassemble or change the seat belt. Do not repair the seat belt yourself.

WHILE OPERATING THE VEHICLE

- Keep your entire body inside the vehicle, keep seated and hold on while the vehicle is moving.
- Do not start the vehicle until all occupants are securely seated.
- Keep your hands on the steering wheel and your eyes on the path you are going.
- Always back up slowly, and watch the back carefully.
- Avoid starting or stopping suddenly.
- Avoid turning the steering wheel too sharply at high speed.
- Always drive slowly up or down on the incline.
- Do not make any modification or addition which may affect the capacity or safety of the vehicle
- Children are not allowed to play in the vehicle. Children should be seated between adults and protected by them when the vehicle is moving.

3. TECHNICAL DATA

The data below have been confirmed by an independent authority lab.

Model	EG202AKR	EG204AKR	EG204AHCXR
SPEC DATA	2 seat	4 seat	2seat
Dimension (mm) (L×W×H)	2420*1330*1940	3300*1330*1940	3300*1330*1940
Loading capacity (kg)	160	320	310

Range (loaded) based on flat road at a speed of 20km/h (km)	≥85	≥70	≥70
Max.speed (km/h)	40	40	40
Minimum turning radius (m) (m)	3.5	4.5	4.5
Max. climbing ability (loaded)	20%	20%	20%
Noise (dB)	≤68	≤68	≤68
Wheelbase (mm) (mm)	1690	2460	2460
Front wheel tread (mm) (mm)	940	940	940
Rear wheel tread (mm)	980	980	980
Max. movement after brake (V=20 km/h)	≤4m	≤4m	≤4m
Min. ground clearance (mm)	116	116	116
Parking ability(%)	20%	20%	20%

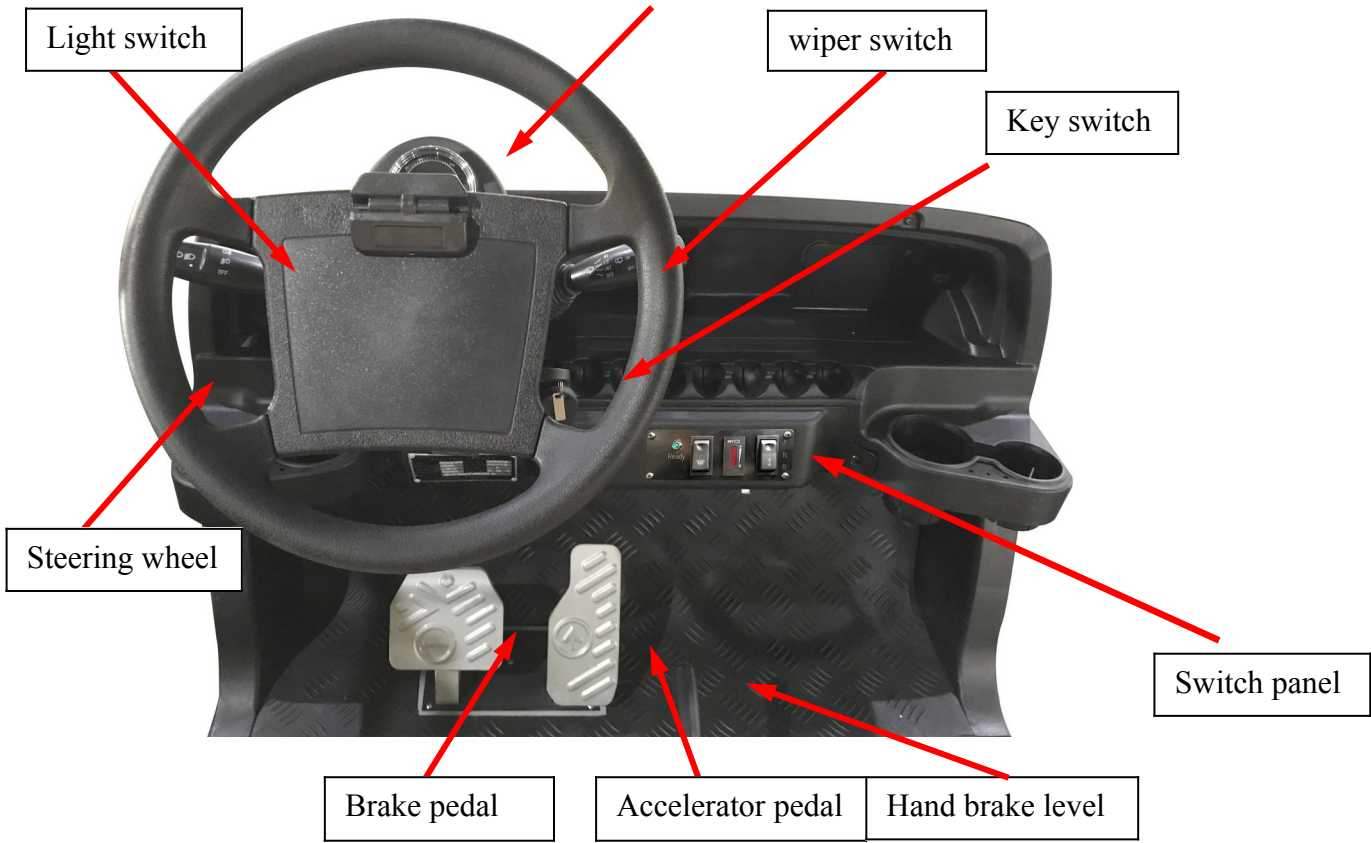
Power system :

	Motor	controller	Battery
1	48V/5KW AC Motor	1236-5301	4-EVF-150, 6pcs 48V

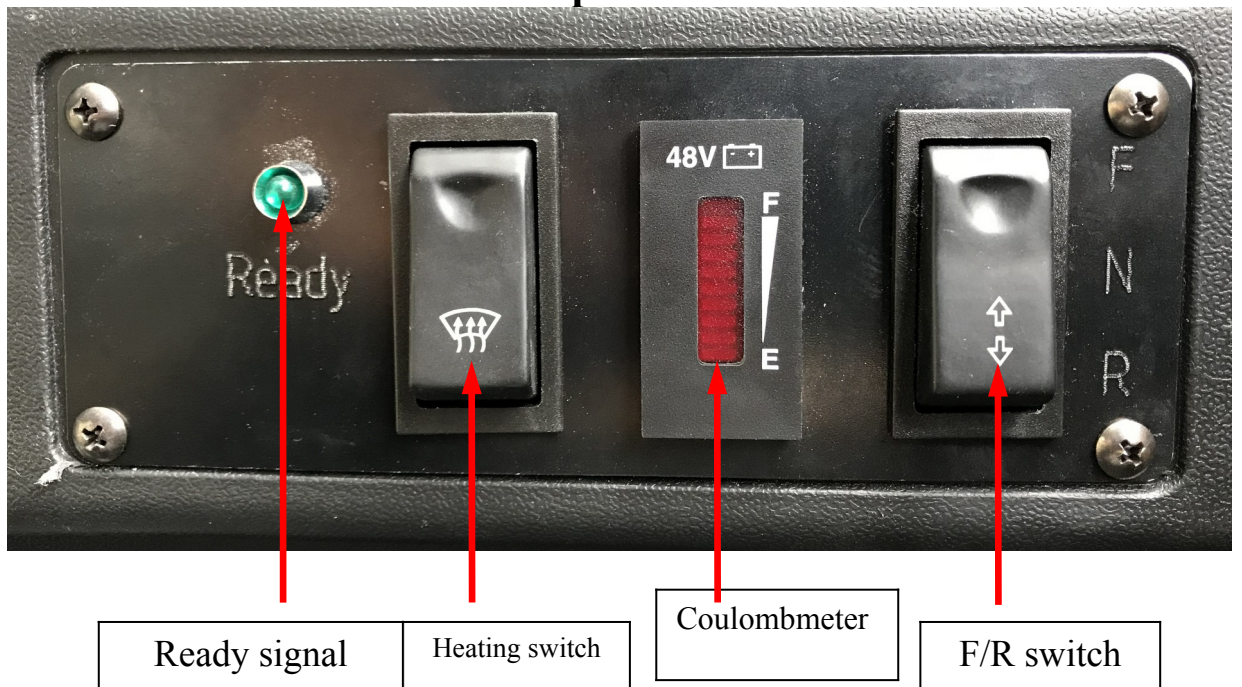
Operation system

1、 Schematic Figure of controls

Digital meter



Switch panel



Notes: When the vehicles is turn on, the F/R switch is switched to the position of “F” or “R”, the “Ready Signal” is ON.



Adjustable steering handle

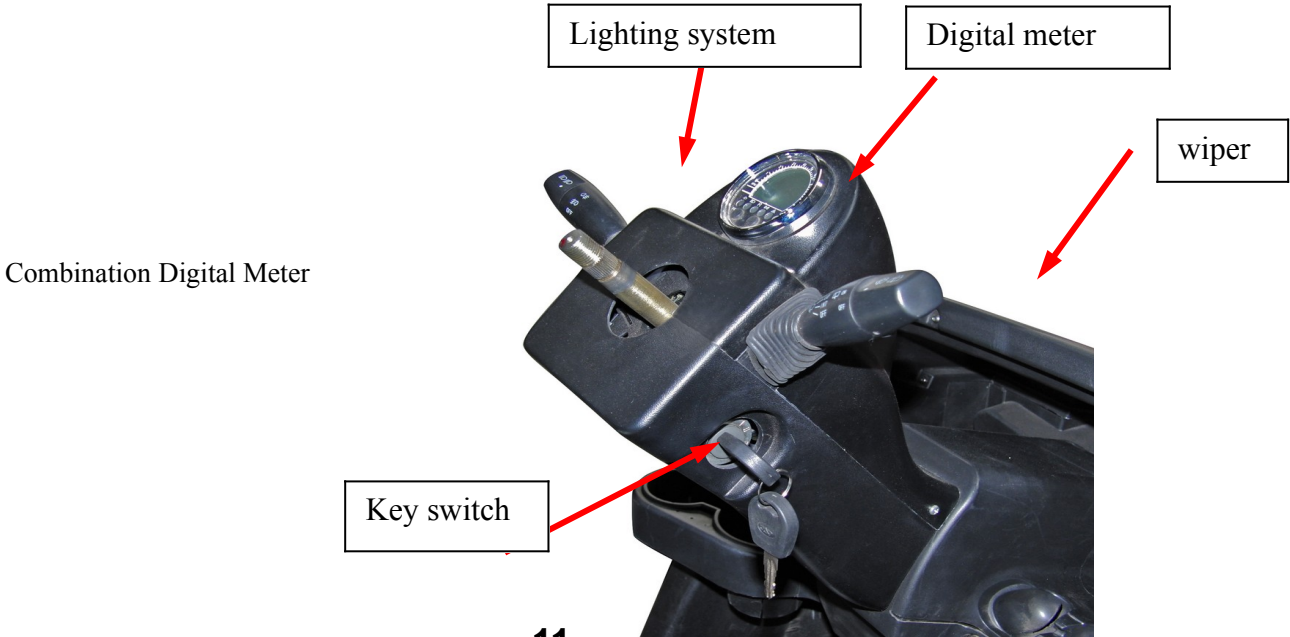


Brake pedal

Accelerator pedal



Hand brake level



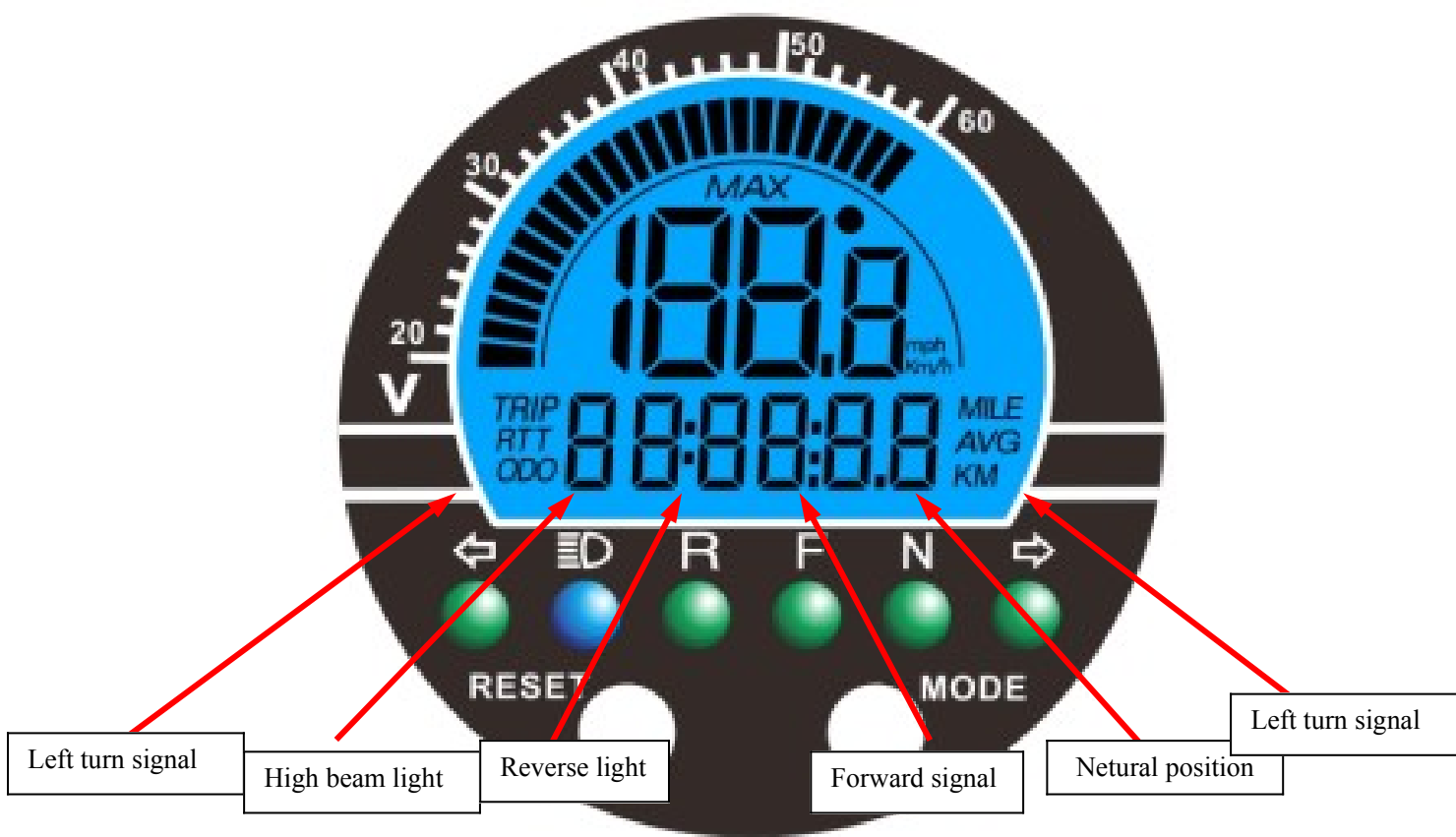
Lighting system

Digital meter

wiper

Key switch

Combination Digital Meter



2 Operation instruction

Ignition key

—The Ignition key is used to switch on the electrical system of the vehicle.

The ignition key has three position, insert the key to let it on the first position; turn it clockwise to the second position to engage the 12V accessory system (including the headlight, turn signal, taillight, brake light, horn, wiper and digital meter); turn it clockwise further to the third position to engage the motor and to drive the vehicle.

To switch the power off, turn the key counterclockwise to first position and pull out the key.

NOTE: only when pull out the key, the 12V accessory system will be powered off completely.

Accelerator pedal

—The accelerator pedal is used to control the speed to move the vehicle. Step it down slowly to increase the speed. The vehicle will speed up with the gradual stepping down of the accelerator pedal, eventually reaching the full speed when the pedal is stepped down to the bottom. The vehicle slows down with the releasing of the pedal. When the pedal is fully released, electric brake will function, and the vehicle will stop.

Brake Pedal -----Step down service brake pedal to decelerate the vehicle and finally stop the vehicle if needed.

WARNING!

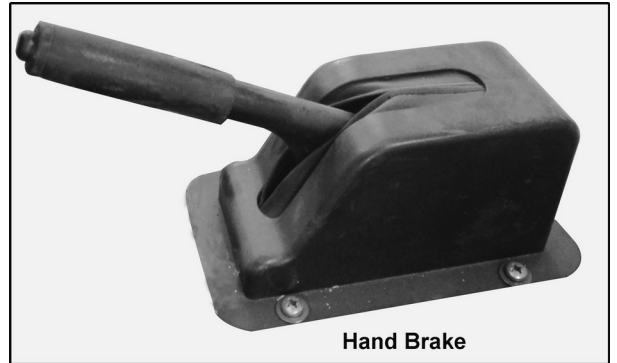
It is prohibited to step down both the brake pedal and the accelerator pedal all together; otherwise this type of operation will damage the motor badly.

Hand brake for parking

The hand brake is used for parking. The hand brake pedal should be engaged into parking position whenever the vehicle is left unattended: pull up the hand brake to the end position in order to park the vehicle completely. This operation will make the vehicle stay in parking position when this vehicle is unattended.

WARNING!

Do not drive the vehicle when the hand brake is engaged! Always check and release the hand brake before driving. Failed to do this will cause motor burn.



How to engage and disengage the parking brake?

To engage the parking brake, pull up the hand brake lever to the end;



To disengage the parking brake, pull up the hand brake lever to the end and then press down the button on the top of the brake lever, with the button being pressed down,

push down the brake lever to the bottom.



Steering wheel

The steering wheel is used to control the driving direction. Please avoid any sudden and big turning.

Battery Power Meter

The battery power meter is combined in the digital meter. There are 10 divisions in this meter (from 0 to 1). This meter will fall from higher division to low ones as the battery discharges. When it reaches yellow area, you shall recharge the battery. When it reaches red area, you shall stop the vehicle and recharge the battery immediately.

NOTE: please refer to your Battery Chargers Owners Manual for how to recharge the batteries.

WARNING!

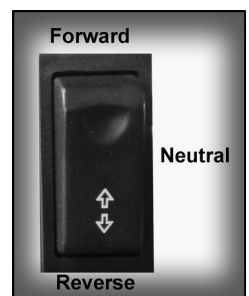
Drive the vehicle when battery power meter reaches red area will damage the batteries.

Forward/reverse switch

This switch is a three-position switch, depressing the upper part gets the vehicle move forwards while depressing the lower part gets the vehicle move backwards, and the middle is neutral.

WARNING! This switch must be fully depressed into the proper position, or the electric system and motor will be damaged.

NOTE: the buzzer will beep when the lower part of this switch is depressed to give warning to the people around your vehicle.



Emergency light switch

Whenever need to stop the vehicle aside the road because of emergency case, switch on the emergency light button.



Heater Switch

To control the heater, press the lower part of the switch, the heater is turned on, press the higher part of the switch, the heater is turned off. There is no Neutral position.

Combined Switch

The left lever of the switch is used to switch on/off the lighting system including headlight, front turn signal, rear turn signal, taillight; the right lever is to control the wiper.



Left lever

- 1) The top button of the lever is used to control the headlight, turn to the first position, the position light will be on; turn to the second position; the low beam will be on.
- 2) Push the lever to the front to engage the right turning light when planning to turn and drive the vehicle to the right.
- 3) Push the lever to the rear to engage the left turning light when planning to turn and drive the vehicle to the left.
- 4) Pull the lever to the top to engage the high beam light. The lever will be back to the middle automatically when leaving it.
- 5) Press down the lever to engage the high beam light.

Right lever

Turn the top button to the on Position to engage the wiper motor, push the lever to the front to the LO and HI position to start the wiper. Pull up the lever to start the wiper sprinkler.

NOTE: There are three speed position signals on the right lever—INT, LO and HI, but the wiper motor only has one speed, so we didn't connect the power to the INT position and LO and HI position in the same speed.

Electric Horn

To be controlled by foot.

Digital Meter

The digital meter includes: indicators for high/low beam, turning signal, forward/backward and parking brake, speedometer, milemeter, amperometer, battery power meter.

Adjustable steering column handle

—turn the steering handle in the anticlockwise direction, the steering column is adjustable; turn the steering handle in the clockwise direction, the steering column is locked.

5. OPERATION

OPERATION FOR VEHICLE WITH MECHANICAL BRAKE SYSTEM

STARTING:

- a) press the forward/reverse switch to the neutral position
- b) Insert the key and turn it to the second position to switch on the power.
- c) Press the forward/reverse switch and lock it to the desired position.

CAUTION!

Do not shift from Forward ↑ to Reverse ↓ while the vehicle is moving.

- d) Stepping down the brake pedal and release the hand parking brake (push the top button of the hand level)
- e.) release the brake pedal and step down the accelerator pedal slowly and smoothly, the vehicle will start to move.

WARNING!

The controller come with the automatic protection, the vehicle will fail to move if the driver failure to following the correct starting steps. In this case, release the accelerator pedal first, and press the forward and reverse switch to the neutral position then restart the key switch.

WARNING!

Do not step down the accelerator pedal when turning on the power key, otherwise, the vehicle may suddenly start moving.

WARNING!

If the accelerator pedal is stepped down before the power key is switched on, the car will not run. In this case, you should release the accelerator pedal first, then turn the power key to ON position, then step down the accelerator pedal again, the vehicle will start moving.

CAUTION:

Slow down the speed of the vehicle to less than 15km/h before turning the vehicle!

STOPPING:

- To stop the vehicle, gradually press down on the brake pedal
- When the vehicle stops, apply the hand parking brake
- press the F/R switch to the neutral position.
- turn the power key to OFF position and pull out the key
-

CAUTION:

Do not hold the vehicle on an incline with the accelerator, please use the brake.
Please make sure the hand brake level is fully released when driving
Please don't press the forward/reverse switch when driving.

6. MAINTENANCE

Users should perform regular maintenance to insure the vehicle in good performance.

MAINTENANCE OF BATTERY

WARNING! Battery electrolyte is poisonous and dangerous, and it may cause sever burns, injury, etc.. Always wear protective clothing, gloves, and goggles when handling batteries, electrolyte, and charging your battery.

KEEP OUT OF REACH OF CHILDREN.

1) Cleaning

- The exterior of the battery, the connection wires and bolts should always be kept clean and dry. When cleaning, please ensure all vent caps are tightly in place. Clean the battery top with a cloth or brush and solution of baking soda and water. When cleaning, do not allow any cleaning solution, or other foreign matter to get inside the battery. This should be done every week.
- Clean battery terminals and the inside of cable clamps using a post and clamp cleaner. Clean terminals will have a bright metallic shine. This should be done when it is necessary.
- Reconnect the clamps to the terminals and thinly coat them with petroleum jelly (Vaseline) to prevent corrosion.

WARNING! Before you disconnect any battery cable from any terminal on the battery, please always remove the power by disconnecting the main battery cable from the controller.

2) Checking the terminals and nuts

The connection of the battery should always be kept in good condition. Please check every week on whether any battery cable terminal or nut has become loose in order to prevent any sparkle or damage to terminals. Please check every week on whether any battery cable is damaged or not, the damaged battery cable should be replaced immediately.

3) No foreign matter

Do not place any objects on the battery and do not connect the positive pole to the negative pole. This may cause a short circuit, dangerous spark or may cause damage to the battery or injury to your body.

4) Recharging

- a. As long as you use the vehicle, regardless of how long you have used it, the battery shall be recharged fully on the same day. Any delay on the re-charging will cause negative effect on the battery. **Notes:** the lead-acid battery does not develop a memory, so no need to be fully discharged before recharging.
- b. If the vehicle is going to be kept unused for a certain long time, the battery shall be fully recharged first. After that, the battery shall be fully recharged every 2 weeks.
- c. When driving, the driver shall be always aware of the drop level of the battery power from the battery power meter, any drop means the battery power is diminishing. Besides, the driver shall estimate the distance needed to be taken, and recharge the battery at a proper time in case that the car cannot get back to the recharging station in time for recharging.

WARNING! Please make sure the battery is recharged before the battery power meter shows 20% power left inside the battery. Over-discharged battery will have a very short service life and will make the recharging very difficult.

WARNING! During recharging, the car shall be parked in a well-ventilated area with the fill caps tightly secured. Keep far away from any flame and sparks to avoid any explosion or fire that could cause physical injury or damage to the property.

WARNING! In summer time, when the battery is hot, don't recharge the battery immediately. Only charge the battery when it cools down. And also don't charge the battery in the sunshine.

WARNING! In winter time, when the temperature is too low, charge the battery in a warm place.

WARNING! At the end of the battery's life, its capacity will decrease dramatically. When changing new group of batteries, shall use the batteries of same brand, same model, same capacity and similar voltage (difference be less than 0.02V).

6) Battery installation

WARNING!

When working with the battery, DO NOT put wrenches or any other metal objects across the battery terminals, otherwise, an arc can occur, and it may cause explosion of the battery and physical injury.

Battery is installed or replaced only by the qualified electrician.

7) BATTERY CHARGING

WARNING!

The charger can be used in the temperature -10°C~+45°C, the charger is prohibited from using if it is

WARNING!

Before you use the charger, please read the operation manual provided with the charger.

WARNING!

Explosive hydrogen gas is produced while battery is charged. Only charge the battery in well-ventilated areas.

WARNING!

Before using the charger, please check if the battery charger you are getting to use is correctly rated as per your local AC electricity network.

WARNING!

When using new battery, make sure new battery is in same specifications as original one and is appropriate in application.

The following is the charging steps:

- 1) Turn the ignition key to OFF position and pull out it.
- 2) Please make sure the gauge of the input wire should comply with input current to avoid overloading on the DC output plug to the vehicle receptacle first; then connect it to your local AC power outlet.
- 3) When charging, the 80%, 100% charging status light should be on one by one, the charger will turn off automatically when the battery is charged fully

WARNING!

Do not disconnect the DC output cord from the battery receptacle when the charger is ON, otherwise an arc could occur which may cause an explosion.

WARNING!

This vehicle comes with onboard charger, the vehicle can be drive when it's being charged, so don't drive the vehicle when it's being charged.

- 4) After the charger turns off, disconnect the plug on the AC charging cable from the AC power outlet first, and then disconnect the DC output plug from receptacle.
- 5) It is prohibited to open the housing of the charger.
- 6) Only qualified electrician is allowed to open the housing of the charger.
- 7) The charger should be stored in safe and dry room with good ventilation.
- 8) The charger should be packed properly if not used for long time.
- 9) Read carefully the manual for the charger for detailed instructions.

- 10) When charging, the charger will automatically shut down if the local power grid is too high or too low, meanwhile the trouble light will be on to bring the user's attention.

Maintenance of the Traction Motor

WARNING! No explosive gas vapor is in the air, otherwise, it may cause severe injury and damage to your body and property if the explosive gas vapor contacts the sparks generated from the motor.

- 1) Do not keep the motor running idly for long periods of time. Any idle running of the motor should be avoided.
- 2) Removal of mud, sand and other clinging objects shall be done frequently to facilitate the heat-radiation.
- 3) Periodically (every 3 months) check the motor terminals, the connecting of the motor encoders and thermal sensors are tight, the corrosion and foreign matter should be cleaned up.
- 4) AC motor is maintenance free, we just need to ensure the motor and terminals are clean mostly.
- 5) The terminals should not short out externally.

Troubleshooting for AC motor

	Trouble	Possible cause
1	Abnormal motor current while very low speed	Encoder failure or loose connecting
2	Noise from motor	Motor bearing wear out

Maintenance of the Controller:

The electric vehicle controller used in this vehicle adopts advanced MOSFET technology, featuring smooth speed regulation, quiet operation, high efficiency, energy saving, safety and reliability.

- Prevents the vehicle from starting suddenly. 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) controller to disable the output.
- Operation sequence protection function (SRO) when starting the vehicle.
- The microprocessor for continuous diagnosis during operation. If a fault occurs, the controller immediately stops output, providing complete protection for the operator and the vehicle.

- The controller has anti-slip function and ramp start assist function, which automatically detects the vehicle status and finds that the vehicle will automatically brake when it taxis.
- The controller has temperature monitoring and protection function to prevent the motor from overheating and avoid damage to the motor.

CAUTION

Only qualified electrician is allowed to do the maintenance for the controller.

WARNING!

There are no user serviceable parts inside the controller. No attempt should be made to open, repair, or otherwise modify the controller. Doing so may damage the controller and will void the warranty.

CLEANING

It is recommended that the controller be kept clean and dry and that its fault history file be checked and cleared periodically.

Periodically cleaning the controller exterior will help protect it against corrosion and possible electrical control problems created by the dirt, grime, and chemicals that are part of the operating environment and that normally exist in battery powered systems.

Regular maintenance

- a. Check contact point and the coil of the contactor, whether there is adhesion, disconnection, or any debris between the contacts, whether there is ablation, whether the ablation is serious;
- b. Check if the connection between the motor, battery pack and controller unit is good.
Note: The test should be carried out when the power is turned off. .
- c. Check and keep the electric control, motor and battery pack clean.

The above checks are performed at least every three months. After the power is turned off, the filter capacitor in the controller unit should be kept for a few minutes of discharge time.

CAUTION

Do not rinse the electrical components with water! Use a clean brush or high pressure gas to remove dust.

Faulty History File

The handheld programmer (to be ordered separately) can be used to access the controller's fault history file. The programmer will read out all the faults the controller has experienced since the last time the history file was cleared. Faults such as contactor faults may be the result of loose wires; contractor wiring should be carefully checked. Faults such as overtemperature may be caused by operator habits or by overloading. After a problem has been diagnosed and corrected, it is a good idea to clear the fault history file. This allows the controller to accumulate a new file of faults.

By check the new history file at a later date, you can readily determine whether the problem was in deed fixed.

Or checking the problems according the flashing way of the STATUS light on the top of the controller, please refer to the details of the controller manual which is available separately.

Please contact your local dealer or a qualified electrician to work on the problems related to the motor, controller or electrical system of the vehicle when you are not able to fix them.

Troubleshooting for AC controller

Trouble	Possible cause
Vehicle cannot move	<ul style="list-style-type: none"> (1) The controller has no power (2) No signal to controller (3) main contactor fault (4) Motor or controller fault (5) faulty encoder or faulty encoder power cord (6) motor or controller in temperature protection
Vehicle can move either forward or backward	<ul style="list-style-type: none"> (1) forward/reverse switch fault or the loose wiring connecting of forward/reverse (2) Controller failure
Max speed is very slow	<ul style="list-style-type: none"> 1) The battery is about to run out (2) The hand brake is not fully released or the brake shoes are not returned (3) The accelerator fault (4) The controller is faulty (5) too much overloading (6) motor or controller in temperature protection (7) Motor encoder fault

Maintenance of Rear Axle:

While using your vehicle, the rear axle should be maintained daily, periodically and randomly.

1. Periodic maintenance means the driver should do some daily maintenance before, in or after driving to prevent something unexpected happens. The maintenance is focused on clearance and examine as followed:

- 1) Clean the dust and mud on the cover to keep the axle clean
- 2) Check all the aerodynamic condition, in case of damage, if any contact sticks or there is any travel in the contact.
- 3) Check the gear oil is enough or not, and add some in time if it is not.
- 4) Check if there is any link in the connection and transmission units or any unusual sound inside the axle;
- 5) Check the brake drum, the exterior temperature and smell, it should be adjusted and repaired in time if there is any problem.
- 6) Check if the breather valve ventilate or not in case the oil linked;
- 7) Check if there is any section in the parking brake cable broken or loosen, replace a new one if there is necessary.

2. Periodic maintenance: The axle should be done first grade maintenance, second grade maintenance and third grade maintenance

First grade maintenance focuses on lubricate, fixation and gear oil replacement.

Second grade maintenance focuses on check, adjustment and gear oil replacement.

Third grade maintenance focuses on the whole part cleaning, assembly and gear oil replacement.

Maintenance in each grade should follow the requirement.

Periodic maintenance following sheet:

Period	Grade
Every Month	Do first grade maintenance as required above
Every 2 months	Do second grade maintenance as required above
Every a half year	Do third grade maintenance as required above

Malfunction and troubleshooting

Symptom(s)	Possible cause(s)	Troubleshooting
The axle housing gear and bearing are damaged untimely and there is too much noise on the final drive	1. The gear oil is insufficient or used improperly	Fill some oil or replace new oil
	2. The bearing is not assembled correctly	Assembly correctly
	3. Adjust the brake shoe pin shim or the interval.	Adjust or replace
	4. The gear between axle 1 and 2 is not touched tightly	Adjust correctly

	5.The final drive is too noisy: 1)Check if there is any impurity 2.check the if the gear is damaged	Remove the impurity, replace the gear
	6.Axle 1 strikes heavily	Adjust or replace a new one
	7.The rear axle is out of shape (check if it is over loaded)	Replace
Lack of breaking force	1. There is interval between the brake shoes and drum.	Adjust the interval
	2. There is oily dirty on the brake shoes or drum.	Remove the impurity
	3.There is air in brake pipe	Dispel the air
	4. The brake pipe leaks.	Repair the pipe
	5. The brake shoes are over-rubbed.	Replace a new one
	6. The brake cable is too long or is blocked.	Adjust the brake cable
The brake is difficult to release completely	1.The brake pedal is not bounces back smoothly	Replace a new one
	2.The brake shoe is out of shape	Refit or replace
	3.The is some block on the transmission unit's replace	Refit or replace
The oil leaks	1.The Oil Seal is damaged	Replace a new one
	2.Too much Oil	Adjust the oil lever

Wheel Replacement

WARNING!

Before doing anything on the wheel and tire, please make sure the power key is positioned on OFF position.

Please read the tire manufacturer's instructions and never exceed their recommendation.

Protect face and eyes from escaping air when removing the valve core.

Be sure the mounting/demounting machine is anchored to floor.

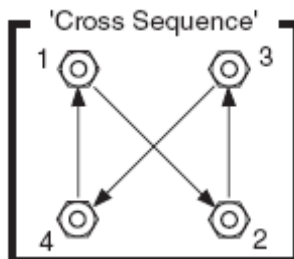
Wear safety equipment when mounting/demounting the wheel and tire.

To remove a wheel on the vehicle:

- 1) Blocking the wheel, then loosen the wheel nuts
- 2) Use a jack to lift the vehicle, and then remove the wheel nuts and the wheel.

To install a wheel on the vehicle:

- 1) Use a jack to lift the vehicle, then put the wheel onto the wheel hub with lug nuts.
- 2) Finger tighten the lug nuts, then tighten lug nuts to 50-85 ft.lbs. (20ft.lbs.(30Nm) increments following the 'cross sequence' pattern



- 3) Remove the jack.

If the tire is flat, remove the wheel and inflate the tire to the maximum recommended pressure for the tire. Immerse the tire in water to locate the leak and mark with chalk. Place tire plug according to the manufacturer's specifications.

Brake Adjustment

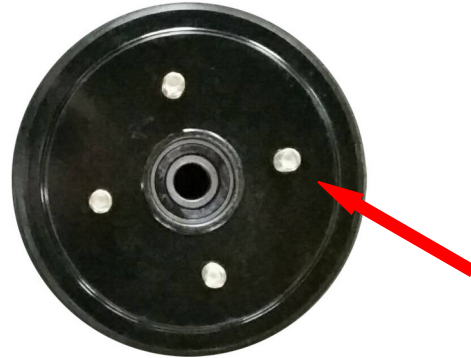
WARNING!

If you have any problem with the brakes, please consult our dealers. Brake failure can result in serious accident or physical danger.

1. step on the brake pedal with a force of about 30kgf several times, the pedal travel does not exceed 2/3 of the total pedal travel.
2. The brake pad is automatically adjusted. The hand parking level should be locked on a tooth between 5 and 10 ratchets when it is be pulled under the tension of 20kgf, then the wheel should be able to lock effectively. When the level is fully released to original positino, the parking brake action is released.
3. Regularly check and replace the brake shoes and add the brake drum bearing lubricant.



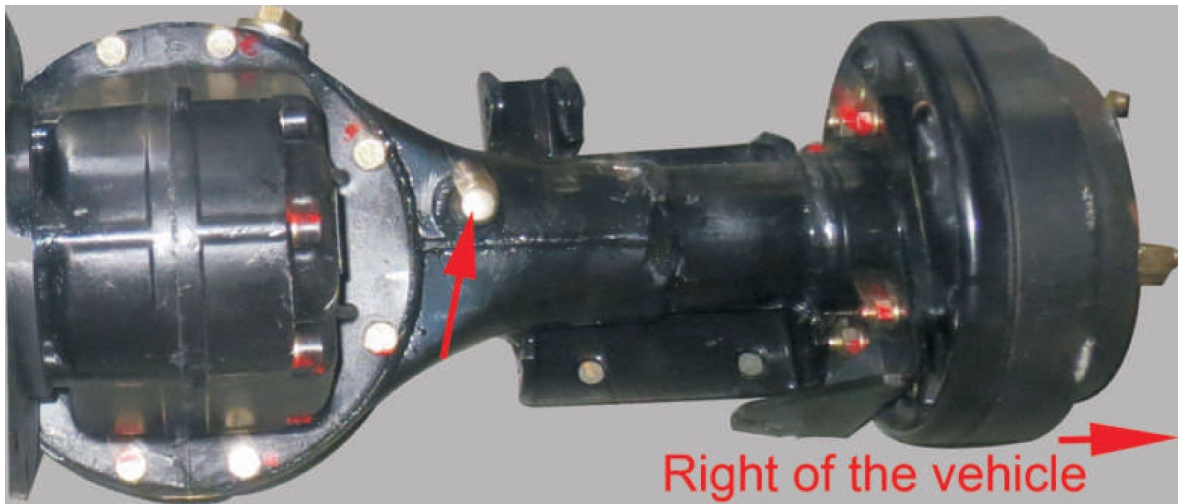
Brake drum (internally)



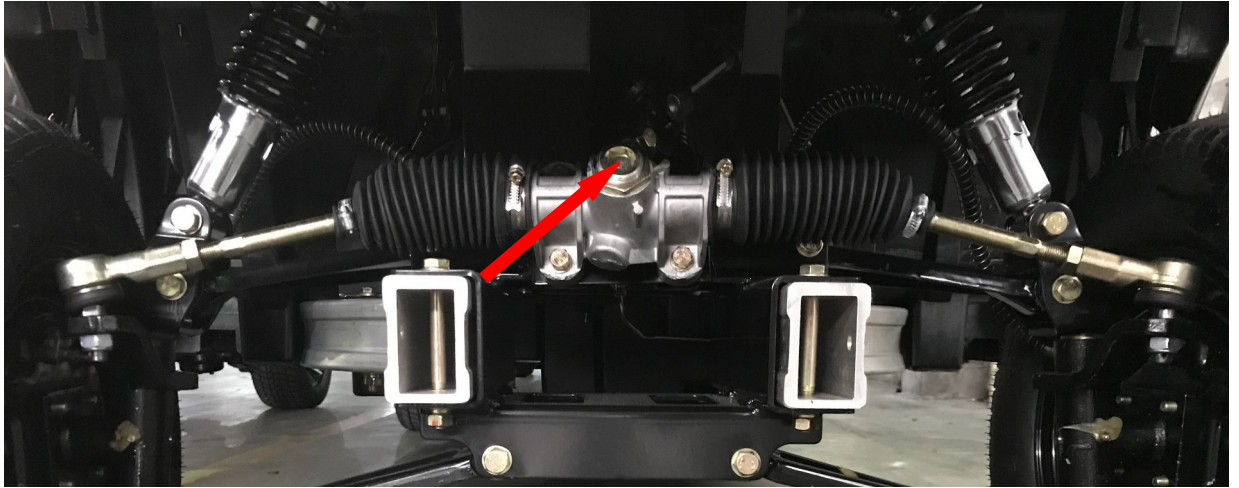
brake drum (externally)

7. Lubrication

- 1) Use 90GL hypoid gear oil of 1 liter for the rear end. Mixed brand of brake liquid is prohibited, the brake liquid tank is located under the accelerator pedal. (underneath the floor mat)
- 2) Lubrication points: redirector, steering knuckle
- 3.) s 85W/90GL hyperbolic gear oil should be filled in the rear axle, capacity is 0.8 liter.



Rear Axle



Steering redirector



**Right steering knuckle (Passenger side)
side)**



**right steering knuckle (driver
side)**

8. Running-in of new vehicle

In order to guarantee the performance of the vehicle and enhance its reliability and working life, its parts should experience a certain period of running-in before it works under peak load. Each new vehicle is required to give one month of running-in time or 1000kms running-in distance, detail procedure is as per the following.

- Before running-in, shall check the capacity of oil, electrolyte and brake oil, if an insufficiency is found, shall fill it accordingly.
- The tire pressure shall comply with the rated kg/cm^2 ± 0.1 205/50-10
- Limit the speed of the vehicle to control the current of the vehicle under 40A during driving.
- O f t ehne cck a n d t i g h t e n r e g u l a r l y t h e f i x i n g p o i n t s .

9. PERIODIC MAINTENANCE CHARTS

Regular maintenance is required for the best performance and safe operation of the vehicle.

WARNING!

1. Before parking, the parking brake must be placed in the end to avoid burning the brake pads.
2. Check the powertrain every three months and fill or replace the grease.
3. Check the brake shoe wear condition every three months, and adjust and replace if there is any problem.
4. Check the tightening of the electrical system every month, especially the large current path, such as the connection between battery, motor and electronic control, should be in good condition. At the same time, the contact state of the contact should be checked, and the defect should be corrected in time, and the deposited dust should be removed in time.
- 5, because the electrical contact is not good, it will heat, so always pay attention to the heat state at the contact point.
6. When replacing the insurance, be sure to check if the rated current of the new insurance is correct.
7. When the vehicle is being maintained and repaired, to ensure safety, the positive and negative power supply connections of the battery pack should be removed.
8. It is strictly forbidden to slam on the accelerator or frequently jog the accelerator to avoid damage to the accelerator and shorten the electronic control life.
9. Drive safely. It is forbidden to drive at high speed when going downhill. When turning, the car should slow down. When turning and downhill, the passenger should be reminded to pull the handrail to avoid a safety accident.
10. Children are strictly forbidden to play in the car. Children should sit in the middle position and have an adult care to avoid accidents involving children falling into the car.
- 11, please follow the table below for regular maintenance

WARNING!

Make sure to turn off the power key and apply the park brake when you do the maintenance unless otherwise specified. If the owner is not familiar with the maintenance of this vehicle, this work should be done by the dealer from who you get your vehicle:

1D – per day **1W** – per week **1M** – per month **1Q** – per quarter **1Y** – per year

item	Descriptions	1D	1W	1M	1Q	1Y
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Battery	1. Check the liquid level. Please add the distilled water if necessary.	Y				
	2. Charge the battery	Y				
	3. Tighten the nut on the battery cable		Y			
	4. Check if the battery is over-discharged (the battery power meter is flashing)	Y				
	5. Check the liquid density of the battery, standard density should be 1.275 ± 0.005 (25°C).		Y			
	6. Check if the battery is charged fully by 3 ways: a) using the hydrometer; b) checking the battery power meter;	Y				
	7. Clean the surface of battery		Y			
Charger	8. Observe the charging status, check if the charger plug becomes hot.	Y				
	9. Clean the surface of the charger. Do not get any water inside the charger.		Y			
Controller	10. Check if all terminals are tightened properly. Please do this after the power is off.				Y	
	11. Clean the surface of the controller.				Y	
	12. Check if the solenoid is in order, checking its touching point.					Y
	13. Check if any water gets in. Check if it becomes too hot.	Y				
	14. Check if the carbon brush should be replaced.					Y
	15. Check if the accelerator pedal works well and if it can be released freely and automatically.				Y	
Chassis and body	16. Check if the brake drum and the brake shoe should be replaced or not.				Y	
	17. Check if the hand brake functions. (applicable for vehicle with hand brake).				Y	
	18. Check if the hose and tube for the brake liquid leaking. (applicable for vehicle with hydraulic brake).			Y		
	19. Check if the brake liquid inside the brake liquid tank is enough. (applicable for vehicle with hydraulic brake).			Y		
	20. Check the air pressure inside the tire, check if the tire surface is worn, check if the nuts are tightened properly.		Y			

	21. Check if the shock absorber has any oil leaking, flat or abnormal noise.			Y		
	22. Check if there is oil leaking on the gear box and the rear end.		Y			
	23. Add the lubricant inside the wheel hub, steering system.				Y	
	24. Adjust the toe-in of the front end				Y	
	25. Clean the body and seat				Y	
After above maintenance, drive the vehicle to check if the vehicle works properly.						

10. STORAGE

Please follow the steps as below when the vehicle is stored.

1. Check the liquid level inside the battery; recharge it fully before storing the vehicle.

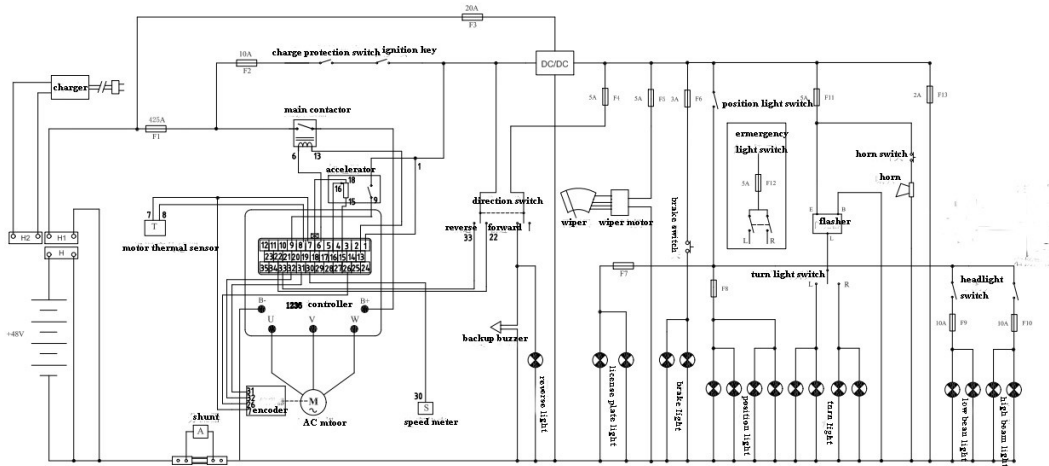
WARNING!

Please charge the battery once a month if your vehicle will be stored more than one month.

2. Turn the power key to OFF position, remove the key, and store the key in a safe position.
3. Move the tow switch into TOW position on the controller cover.
4. Check the tire pressure to make sure its pressure is set to recommended pressure.
5. Clean the exterior of the vehicle and apply the rust inhibitor.
6. Cover the vehicle with a breathable cover and store it in a dry, safe and well-ventilated place.
7. If the vehicle is planned to store for a longer time, then please check the liquid level inside the battery once a month, recharge the battery

11. Wiring Diagram

Wiring diagram for vehicle (AC system) with Curtis controller 1236, 5KW moto (FIG. 1)



This manual tries to be as sound and elaborate as possible in literal and figurative description as well as technical description on the basis of existent data. At the same time, our company reserves the right to alter the content of this manual and this manual is subject to change without prior notice; in addition, our company has the final say on the interpretation of this manual.
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12 Fuse Box

Location of the fuse box:

All the accessory fuse are all mounted in the fuse box located in the rear body (driver side) of the golf cart.

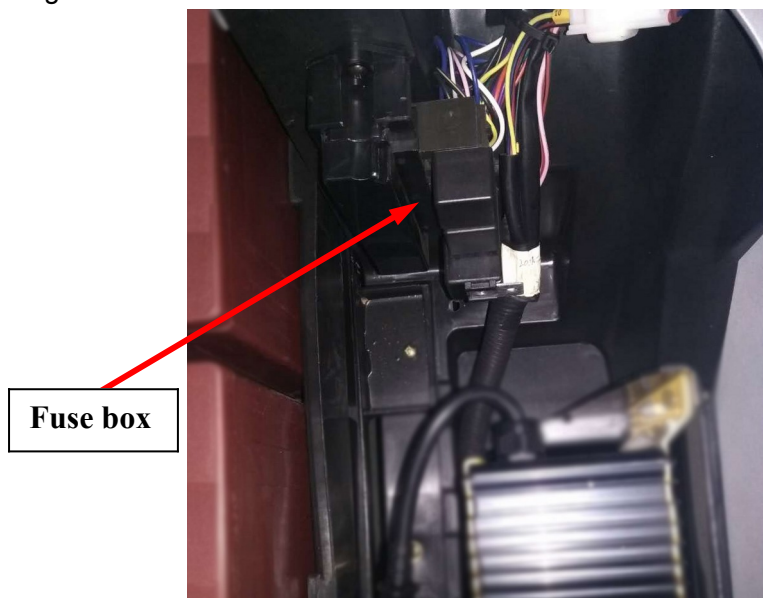
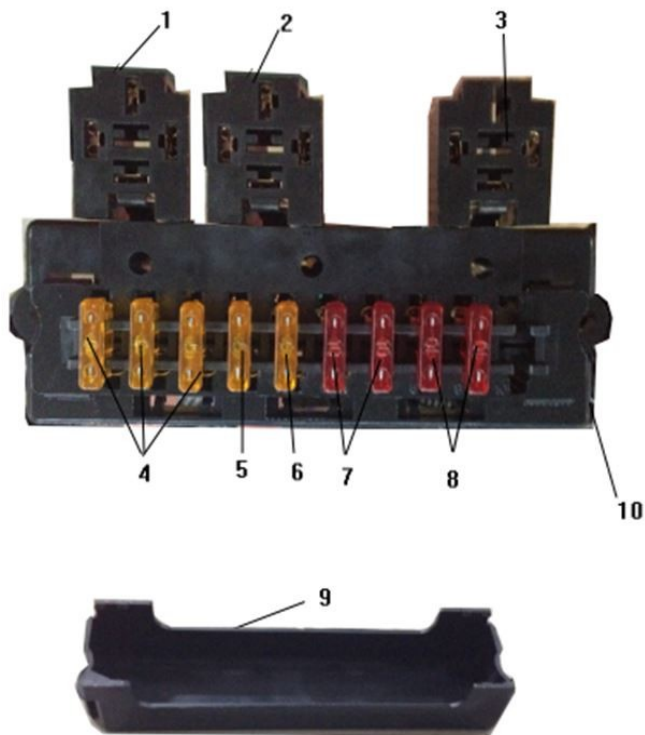


Diagram	Description
1	High beam light relay
2	Low beam light relay
3	Electric flasher
4	Wiper and park brake light
	Brake light signal
	Reverse light signal
5	Position light
6	Turn light
7	High beam light
	Low beam light
8	Main fuse
	coulombmeter
9	Cover of fuse box
10	Fuse box



The main fuse is located on the controller mounting board.
 (refer to the electric diagram)

