OWNER'S MANUAL

RGC1
ELECTRIC GOLF CART

⚠ WARNING

UNDER 16

Operating this Golf Cart if you are under the age of 16 increases your chance of severe injury or death. NEVER operate this Golf Cart if you are under age 16.

⚠ WARNING

NEVER ATTEMPT TO START THIS GOLF CART WITHOUT READING AND UNDERSTANDING THE OWNER'S / OPERATOR'S MANUAL. THE OWNER'S OPERATOR'S MANUAL PROVIDES INFORMATION ON SAFETY, PARTS, FUNCTIONS, PRE-RIDE INSPECTION, STARTING AND MAINTENANCE

Provincial/Municipal governments have different regulations pertaining to owning and operating an off-road vehicle, learn the regulations in your area.

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champmoto.com

CONTENTS

Introduction

Dear Customer,

Thank you for purchasing the product manufactured by Champion Motorsports Group. The proper use and maintenance of the product are outlined in this instruction manual. Following these instructions will ensure your long-term safe and worry-free use of the vehicle.

Purpose of Use

The vehicle is designed to be used on flat, smooth, barrier-free roads. It can be used for country road driving. An adult is required to drive the vehicle. The vehicle should not be used on rough terrain.

The vehicle is equipped with an AC motor rated at 5KW. The speed is changed by the voltage applied to the electronic gas pedal. The vehicle is equipped with front/rear disc brakes to brake the vehicle, which is controlled by a brake pedal located on the left side.

Safety Warnings

This manual contains important safety information and instructions that must be read carefully before using the vehicle. For your own safety and the safety of others, please follow these rules.

Unsafe and careless use of the vehicle can lead to serious personal injury. Drivers can minimize potential hazards by wearing safety belts. Drivers and passengers should fasten their seat belts before driving. Avoid rough roads and obstacles. Always keep both hands on the wheel when driving.

It is not recommended to drive this product on the road surface with slope greater than 30 degrees.

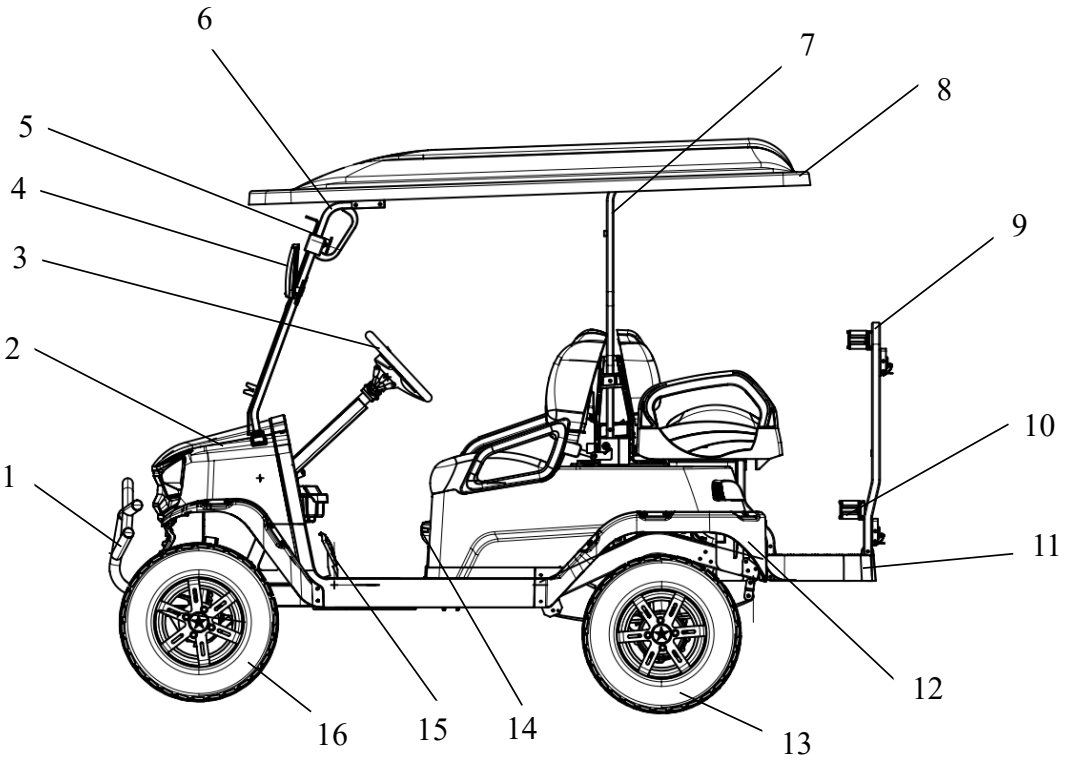
Children under the age of 16 are not suitable for driving this product.

Section 4 Technical specification

Curb weight	598Kg (1318.4 lb)	Max load	380Kg (837.8 lb)
Length	2886mm (113.6 in)	Width	1266mm (49.8 in)
Height	2070mm (81.5 in)	Seat height	430mm (16.9 in)
Backrest height	560mm (22 in)	Wheel track	Front 1080mm (42.5 in) Rear 1020mm (40.2 in)
Ground Clearance	175mm (6.9 in)	Wheel base	1720mm (67.7 in)
Controller type	alternating current	Rated voltage	48V
Battery type	Lead-acid	Battery capacity	155AH
Voltage	48V	Driving Distance	70KM (43.5 mi)
Motor type	AC frequency conversion traction	Motor power	5kw
Charger input voltage	110V-250V	Charging type	Portable battery charger
Rated speed	3000rpm	Charge time	8h-10h
Motor position	In-head/fore rake	Max speed	≥30km/h (≥20 mph)
Max. climbing ability	≥25%	Seating capacity	4
Tire size	23*10-14	Braking distance	≥8m
Packing type	Machinery	Front/Rear brake	Disc

Section 5 Parts

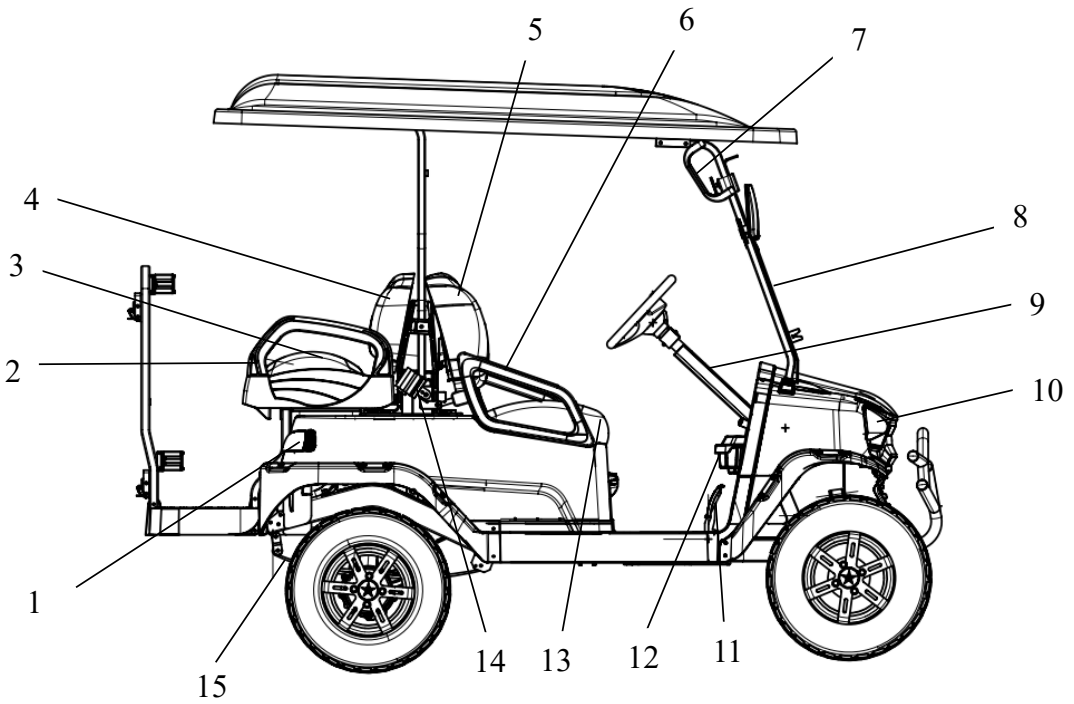
1.Left view



（Figure 1）

1. Bumper 2. Front body 3. Steering wheel 4. Rear view mirror 5. Inner view mirror 6. Top cover front bracket 7. Top cover rear bracket 8. Ceiling 9. Rear tail bracket 10. Ball bag bracket 11. Rear pedal 12. Rear body 13. Rear tire 14. Gear switch 15. Brake pedal 16. Front tire.

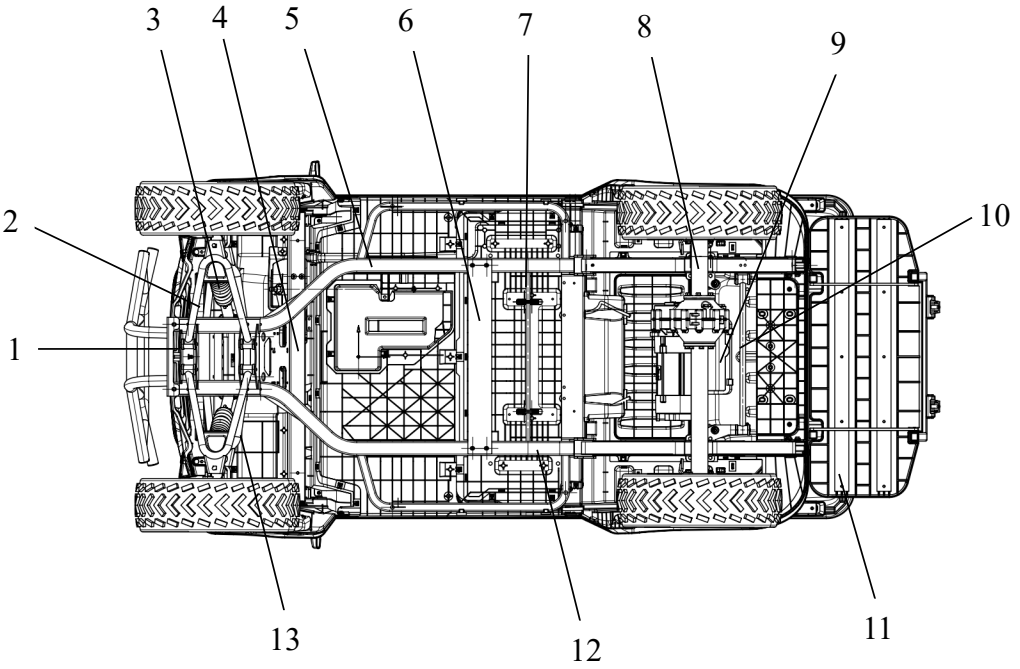
2.Right view



（Figure 2）

1. Taillight 2. Rear armrest 3. Rear seat cushion 4. Rear backrest 5. Front backrest 6. Front handrail 7. Boarding handrail 8. Front windshield 9. Steering column 10. Headlight 11. Accelerator pedal 12. Cup holder 13. Front seat cushion 14. Three-point seat belt 15. After the plate spring

3.Upward view

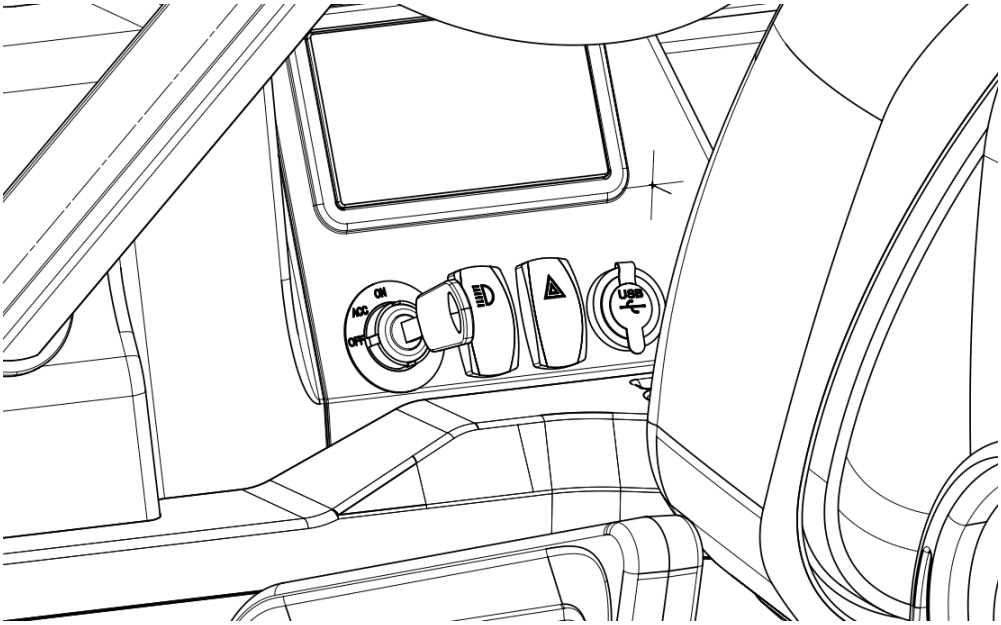


（Figure 3）

1. Swing arm mounting bracket 2. Lower swing arm 3. Front shock 4. Steering column mounting bracket 5. Left carling 6. Brake cable mounting crossbeam 7. Battery mounting shaft 8. Rear axle 9. Motor 10. Stabilizer bar 11. Step support 12. Right carling 13. Upper swing arm

Section 6　Control and functions

Electric door lock switch, headlight switch, emergency light switch, USB



（Figure 4）

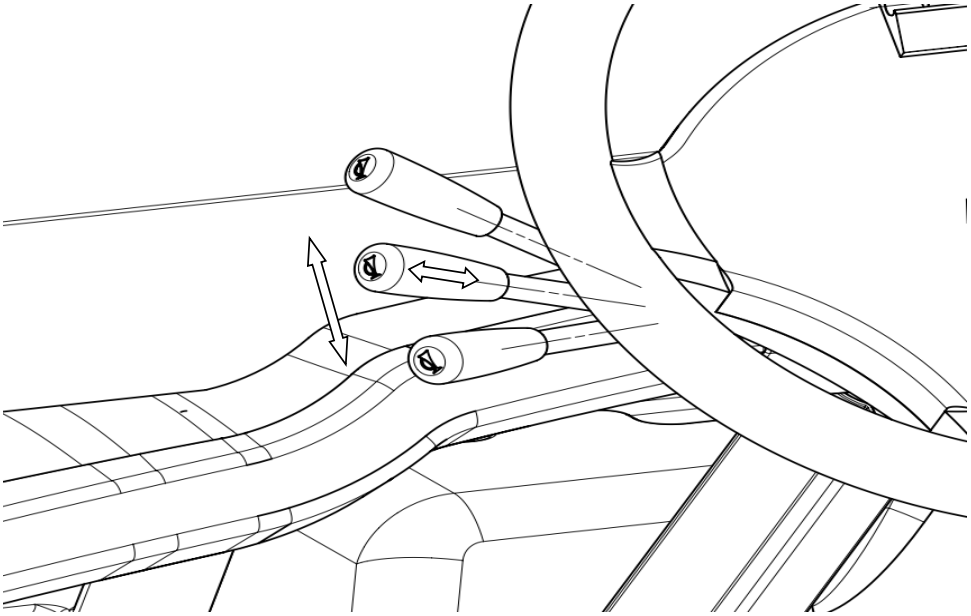
1. The electric door lock switch has two gears. When the switch is in the "ACC" position, the DC converter will work and 12V will start to supply power, which can provide power to the headlights and USB. To start the Golf Cart, simply insert the key and turn it clockwise to the ON position. The controller is powered on and the controller contactor snaps. When the Golf Cart stops running, turn to the OFF position and pull out the key to prevent the non-owner from starting the vehicle.

2. The headlight switch is on the right side of the electric door lock. The headlight switch is a rocker switch.

3. The emergency light switch is on the right side of the headlight switch. Press the upper part of the switch to turn the emergency light on and press the lower part of the switch to turn it off.

4. USB is on the right side of the panel, it can charge external electronic products. USB has 2 charging ports, 5V/1A and 5V/2A.

5.Combination switch

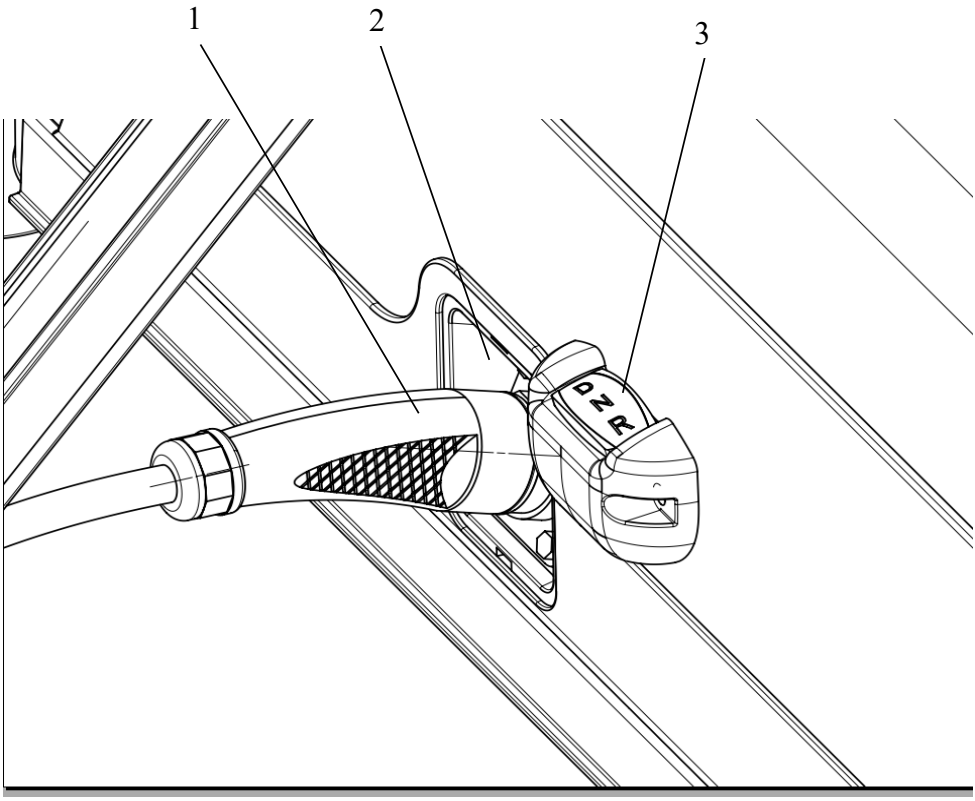


（Figure 5）

Combined switch operation method

Flip the switch forward is turn the turn right signal on, flip the switch down is turn the turn left signal on, combination switch upward is to close the long spot light, combination switch lever tail has a small horn logo, press it, the horn switch work.

6. Gear switch, charging port, charging operation



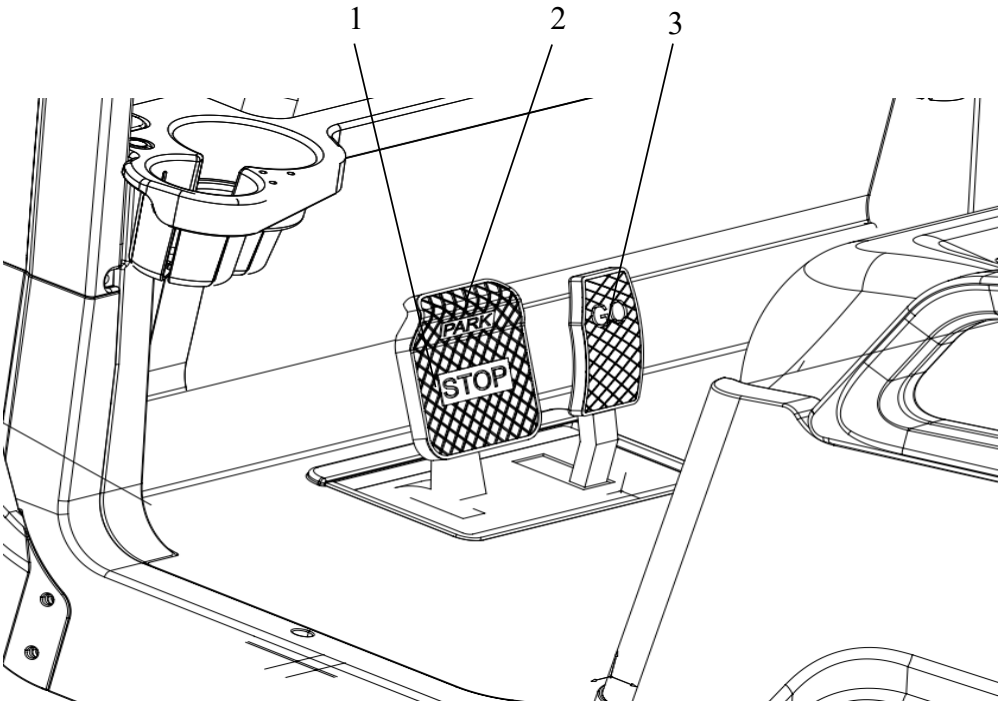
（Figure6）

1.EV charger 2. Charging port 3. Gear switch

Charging instructions: Open the dust cover to insert the EV charger. Note: When charging, the charging gun must be plugged in first. After connecting the AC power for charging, unplug the AC plug first and then unplug the charging gun to avoid wrong operation or damage to the vehicle.

Shift operation, this car used D-N-R shift mode, the gear is in neutral position "N" under normal state, when the shift switch press to” D”, the display shows "D", at this time the vehicle is in forward gear; When the shift switch is press to “R”, the display shows "R", and the vehicle is in reverse gear.

7. Brake pedal and accelerator pedal

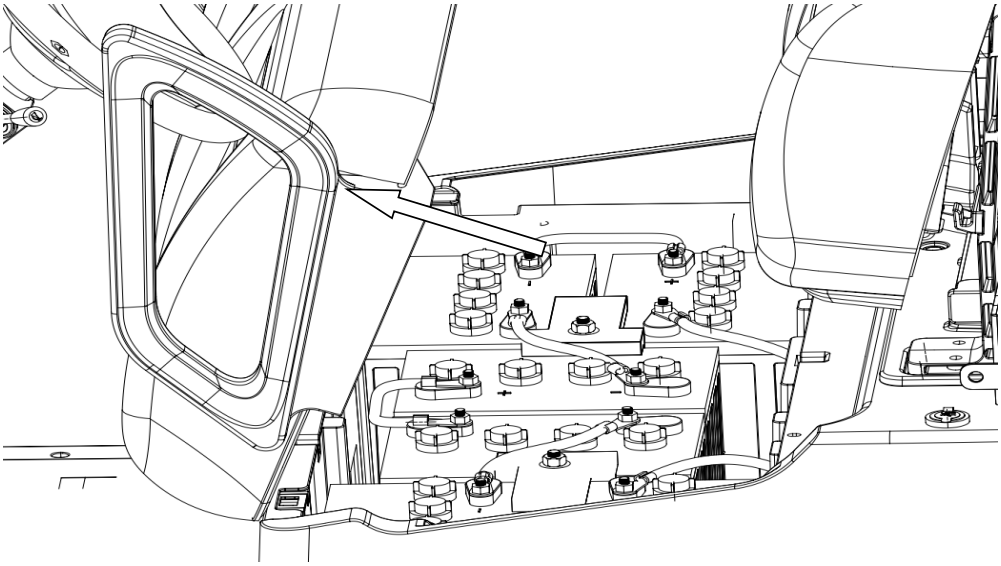


(Figure 7)

1. Brake pedal 2. Parking pedal 3. Accelerator pedal

The brake pedal is used for driving brake. In the process of driving, when the brake is needed, it is necessary to release the accelerator pedal GO first, and then press the brake pedal STOP to brake effectively. Once the vehicle stops, place your foot on the top of the brake pedal and press the PARK hard forward until the parking hook catches the interlock hook. When you need to start the vehicle, press the accelerator pedal and the brake pedal will unlock automatically. Then the vehicle can start moving normally.

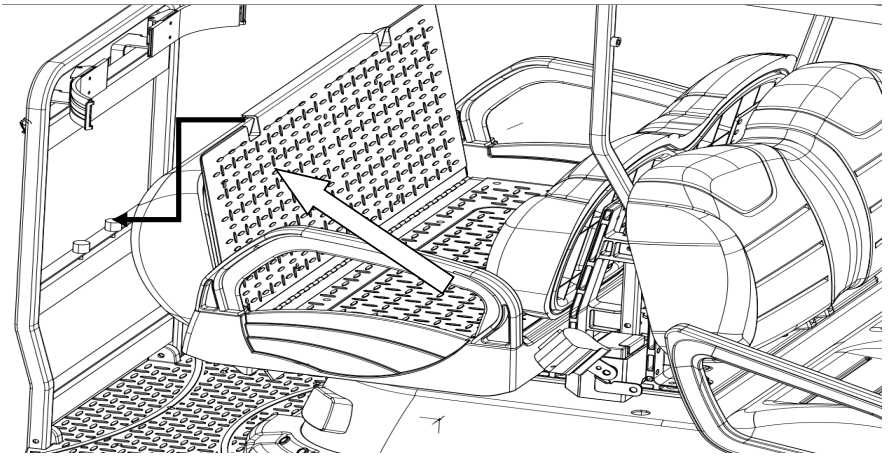
8.Open front seat



(Figure 8)

Instructions for opening the front seat cushion: Pull up the front armrest to open the seat cushion. Under the front seat cushion is the installation position of the battery pack.

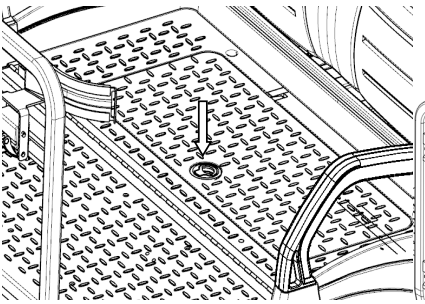
9.Open rear seat



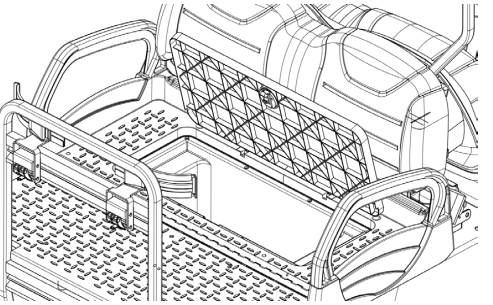
(Figure 9)

Operating instructions for opening the back seat cushion: Pull the back seat cushion up, and when the seat cushion is expanded, the rear should hang the cushion on the rear tail rack. So as not to fall off during the driving.

10.Tool box



(Figure 10)



(Figure 11)

Operation instructions for opening the toolbox: pull up the toolbox loop (Figure 10) to open it.

11.TFT display

(Figure 12)

Total mileage 2. Turn left 3. Headlight 4. Vehicle status 5. Gear 6. Turn right 7. Speed indicator 8. Subtotal mileage 9. Battery indicator.

11.Safety belt

(Figure 13)

Please fasten your seat belt before driving!

Section 7 Safe driving

1.Check before driving

1). Turn on the electric door lock and check the battery status to find if you can get the mileage you want.

2). Check if the brake is effective by gently pressing the accelerator pedal and then pressing the brake pedal before driving.

3). Turn on the combination switch and check whether the left and right turn signals are working.

4). Turn on the emergency lights and check whether the front and rear turn signals blink at the same time.

5). Observe the rear-view mirrors on both sides to check whether you can see the rear driving situation. If you can't see it clearly, please adjust the position of the rear-view mirror until you can see the rear road condition without dead Angle.

6). Please fasten your seat belt before driving to ensure your life safety during driving.

2. Operation procedure

1) Insert the key into the key switch and turn it to the “ON” position.

2) Press the forward/backward shift and make sure there are no obstacles on your road.

3) Press the accelerator pedal gradually, the parking brake unlocks automatically and then the vehicle starts. Press the accelerator pedal down to increase speed. Spring pressure returns
the pedal to the rest position when released. Always check that the accelerator pedal returns normally before starting the vehicle.

4) When parking, release the accelerator pedal and step on the brake pedal with the right foot, and the electric vehicle will stop slowly. After the vehicle stops, place the forward/backward shift switch to neutral position “N”, place your foot on the upper part of the brake pedal, and step on the PARK position forward vigorously until the parking hook catches the interlock hook. When you need to drive, press the accelerator pedal and the brake pedal will unlock automatically.

5) After driving the vehicle, please put the key switch to” OFF” position.

3. Driving precautions

1) Only allow the one who has been studied and trained to drive the vehicle.

2) Before driving, ensure that all passengers are seated and grasp the handrails. Passengers are not allowed to lean out of the vehicle while driving.

3) Slow down and drive carefully on slippery, crowded, or complicated roads.

4) Reduce speed or braking on time when driving on curves and ramps, be careful and avoid accidents.

5) This vehicle is not designed for driving on the highway, it is not allowed to drive on the highway, otherwise the consequences will be serious.

6) The car is manufactured in strict accordance with the vehicle design standards, so the vehicle is not allowed to make any modification after leaving the factory, otherwise the consequences will be serious.
7) Overcrowd and overload are strictly prohibited strictly.
8) It is strictly prohibited to drive the vehicle after drinking or taking stimulants or narcotics.
9)The electric vehicle should be parked indoors after use, because if it is placed outdoors for a long time, the rain (in the case of rainy days) will penetrate the vehicle, resulting in electrical parts damage and mechanical parts rust, reduce the service life of the vehicle.
10)The vehicle is not suitable for in the slope is greater than 12% and longer than 50 meters for a long time, otherwise the excessive working current may burn out the motor or electric control device, affecting the driving safety seriously.

4. The parking

If the driver wants to stop the vehicle, he/she should release the accelerator pedal, press the brake pedal to stop, and then rotate the electric door lock to the OFF closed position.
Warm tips: after driving the vehicle, you can check the battery status on the meter, to make the vehicle more convenient for the next time driving, you are charging the battery if it with lower power. Use the parking brake when parking on a slope.
Once again: Vehicles are only suitable for drivers who have an operating license! If it is the first time to operate an electric vehicle, please receive a trained technician to monitor, to avoid accidents!

Section 8 Operation warning

1.If you follow our advice for the first 1000 kilometers (621.4 mi.), you can extend its service life and improve its economic efficiency.
1) Avoid sudden acceleration when starting the vehicle.
2) Avoid pushing the accelerator pedal frequently.
3) Avoid floor the accelerator.
4) Always check whether the battery connection line, electronic control and motor connection and fastening bolts are loose. If they are loose, they should tighten immediately.
5) It is not allowed to overcharge and discharge the battery, because it will shorten the service life of the battery.
6) Check the air tightness of the steering system, front suspension, and wheel nuts within the first 500 km(310.7mi.) of the vehicle.

2. Vehicle maintenance records

All vehicles must be maintained and recorded regularly to improve the life of the vehicle, reduce costs, increase driving pleasure, and ensure safety, which can improve the service life of the vehicle, reduce costs, increase driving pleasure, and ensure safety.

2.1 Preventive Maintenance

1) The maintenance place should be clean, safe, ventilated and equipped with firefighting facilities.

2) When doing maintenance, you need to turn off the power, pull out the key, put the vehicle in parking status; When repairing the motor, motor controller and high voltage line, the positive battery power supply connection line must be removed to ensure that the main circuit is disconnected and avoid short circuit.

3) When the vehicle is lifting, do not stand under the vehicle.

4) The battery must be treated carefully because it contains flammable and explosive gas and sulfuric acid solution, which is toxic and highly corrosive.

5) NO Smoking and NO Open Flames near the battery.

Section 9 Steering system maintenance and adjustment

The revolute joint of the steering system should be injected with grease once a month, and the connecting ball nut should be checked every three months. If loose, tighten it on time.

Check whether the dust cover of each tie rod joint is broken. The broken dust cover is easy to get water and dust in, which will cause the wear of the joint ball head and the failure of inflexible steering. If cracks are found, they should be replaced immediately.

Check the free swing amplitude of steering wheel, stop the vehicle steadily with front wheel facing straight ahead, then turn the steering wheel lightly. In the case of free swing amplitude greater than the rated value, it needs to adjust. See figure. Note: Only need to turn the steering wheel lightly.

Section 10 Battery maintenance

Use and maintenance of battery.

The RGC1 model is equipped with six electric vehicle lead-acid batteries. Each battery unit is rated 8V for a total of 48V / 155Ah which provides enough power for this electric vehicle.

To ensure personal and equipment safety, operators should follow the following precautions:

1) Specially trained personnel shall be required to replace, maintain, and charge batteries.

2) Do not place conductive objects on the battery to prevent short circuit. Clean the dust and dirt on the battery cover frequently to prevent the filling hole cover or the air hole on the screw plug from being blocked. If solid oxide is found on the pole, it should be flushed with hot water on time to remove it, so as not to affect the conductivity between the pole and the terminal.

After cleaning up, wipe the battery surface clean, and put butter on the pole and terminal to ensure that the pole will not oxidize.

3) When the battery power is insufficient, it is strictly prohibited to start the vehicle; When the battery is being used, over-discharge and high-current discharge for a long time should be avoided, otherwise it will reduce the service life of battery.

4)When charging the battery, the electrolyte temperature shall not exceed 45℃, otherwise should try to cool it down, if the temperature still does not drop, suspend charging, until the temperature drops, then continue to charge.

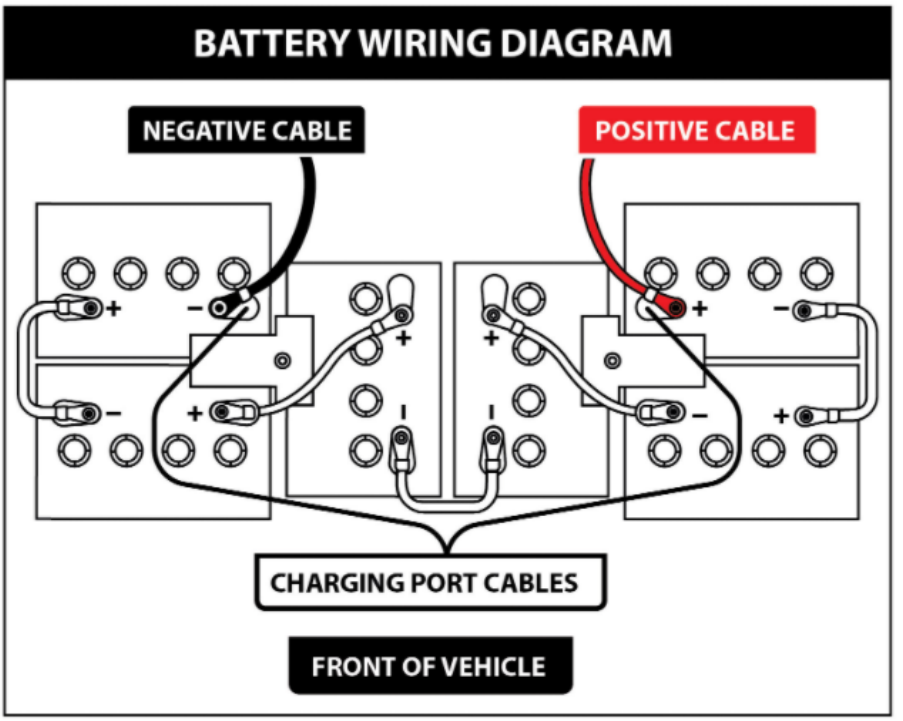
5)Battery charging will produce flammable and explosive gas, so the charging area is strictly prohibited fireworks; Open flame is strictly prohibited during use.

6)Check whether the battery connection is loose or damaged when starting the vehicle each time and adjust or replace it on time; Ensure that the connection of the wire in the process of use and charging must be completely reliable.

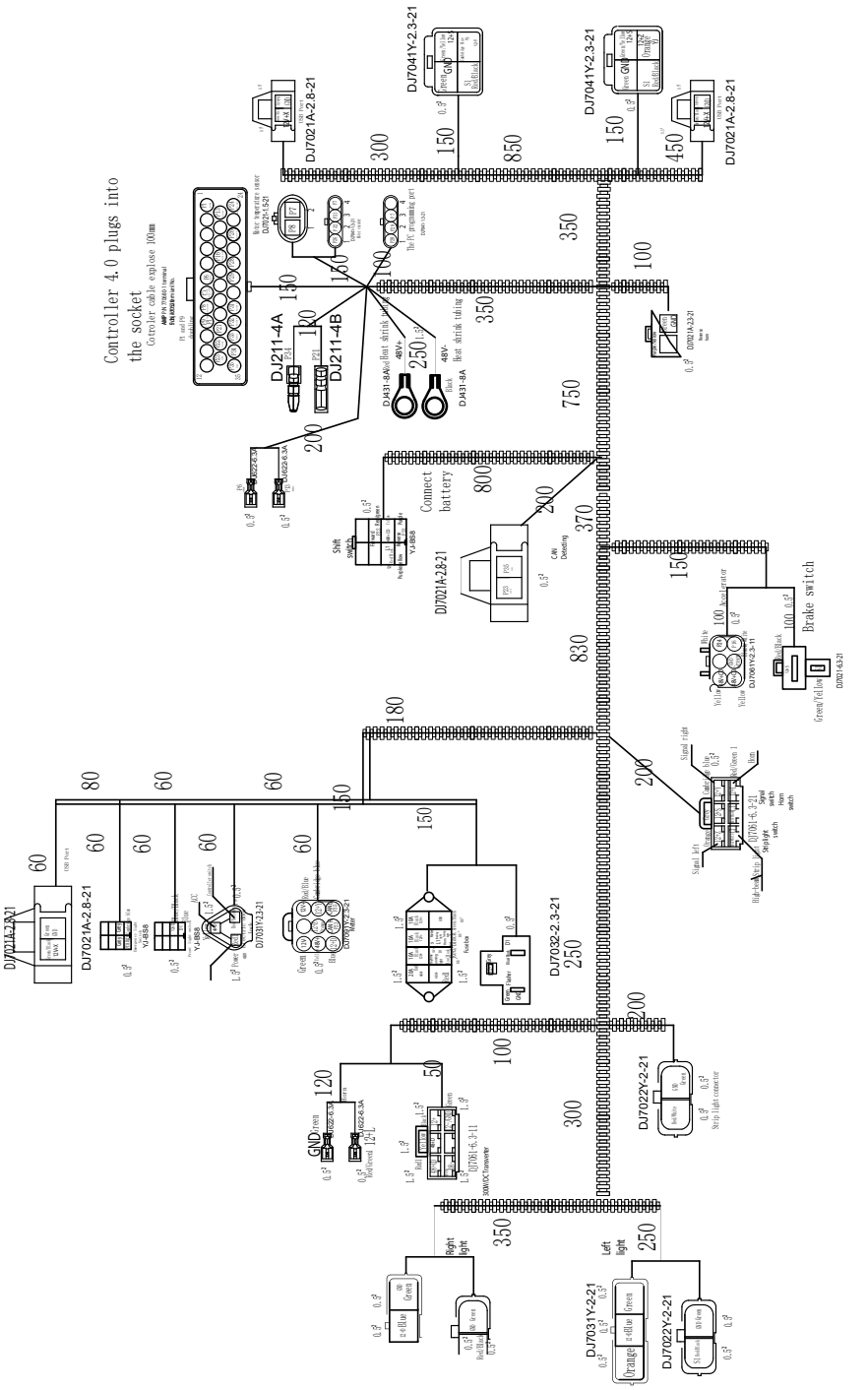
7) Do not let any dust fall into the battery, check, and wipe the air hole frequently to prevent the battery seal cover ventilation blockage.

8)Check battery electrolyte level height (every other week in winter, every 3 days in summer), do not let the battery plate and baffle above electrolyte; Appropriate add distilled water, keep the electrolyte level higher than the plate 15mm is appropriate. It is strictly prohibited to add mineral water, tap water, river water, battery replenishment solution, etc.

Section 11 Battery connect diagram



Section 12 Wiring Diagrams



Section 13 Toe-in of Front wheel

1.Keep the front bundle of the front wheel within the range of 2-7mm, if it exceeds the parameter, please adjust the screw calibration of the direction machine. Measurement procedure:

1)Straighten the front wheel of the vehicle, mark the front and rear center points of the tire, and measure the distance between the left and right tire marks" B". As shown in figure 1.

2)Push the vehicle forward so that the mark moves to the same position as the measured height. As shown in figure 2.

3)Measure the distance between the left and right tire mark and rotate to the front. As shown in figure 3.

4) If the tire toe-in is not within the specified range, it can be adjusted by turning the left and right pull rod.

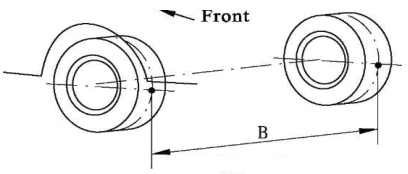


Figure 1

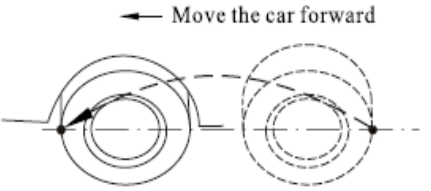


Figure 2

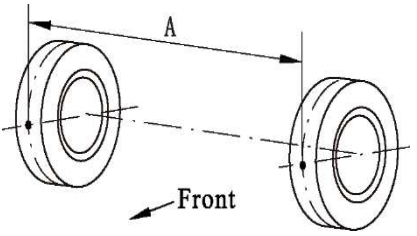


Figure 3

2.Adjust the toe-in of front wheel.

1)Loosen the lock nut at the end of the steering tie rod.

2)Turn the pull rod left and right, left, and right steering wheel of the range of motion should meet the same standard.

3) Lock steering tie rod nut.

Note: When measuring the length of left and right steering pull rod, they should be close to each other. The difference between left and right steering bar: ≤5 mm.

3.Replacement of lubricating oil for the rear axle main reducer

The lubricating oil of the rear axle main reducer should be changed every two years. It is necessary to check whether there is oil leakage and unscrew the screw plug and check whether the lubricating oil is enough regularly.

1)Vehicles must be parked on flat ground during oil level inspection.

2)Remove the oil filling port screw plug and check the oil level with your finger. The distance between the oil level and the bottom of the oil hole is not more than 5mm. If the oil level meets the requirements, tighten the oil plug.

3)When installing the oil filter plug, look for any oil leakage or damage of rear axle housing.

4)If the oil level is low, increase the oil, and then tighten the screw plug.

4. Maintenance of suspension system

The fastening bolts of the suspension system should be checked every three months and tightened on time when it loosened.

5.Maintenance of braking system

Adjustment the brake pad gap of the front brake hub: Raise the front wheel off the ground, the adjustment ratchet on the brake hub counterclockwise to the tire cannot be rotated by hand, and then the ratchet clockwise to the wheel hub by hand without dragging brake phenomenon shall be subject to. The rear axle brake hub is self-adjusting and doesn't need manual adjustment.

Check the brake fluid level frequently, add when insufficient.

6.Tire repair and maintenance

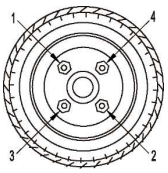
1). Check the tread pattern of tire:

The tread pattern groove depth of the tire should be greater than 1.6 mm. When the groove of tire pattern wear is less than 1.6 mm, the tire should be replaced. Check regularly to make sure there are no nails, stones, or other similar substances. As shown in figure.

2). Tightening procedures of tire nuts:

When installing the nut on the tire (turn the taper point inward), first push the tire inward with your hand to see if the nut can be tightened further.

Tighten the screws and nuts with the tool according to the number sequence shown in the figure. Tighten a few turns at a time until all the nuts are tight (80 lbs. of torque) See below.

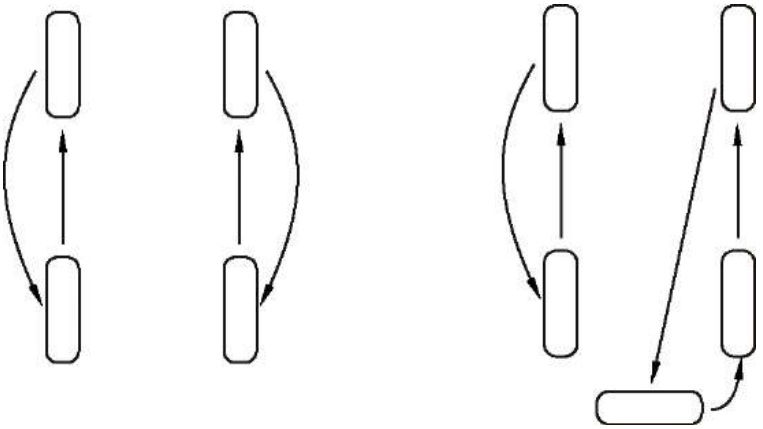


3). Use of tires:

To make the tire uniform use, the tire with the same size and number of tire layers should be replaced every six months in turn to extend the service life of the tire and check the damage degree of the tire surface when replacing the tire. In most cases, serious abnormal wear is

caused by abnormal tire pressure, wheel imbalance, or sudden application of braking force to the aligned tread. The front and rear tire pressures must meet standard values and check the degree of tightening of wheel nuts.

4). Change the tires



Section 14 Use and maintenance of motor controller

1. Power supply should be cut off during inspection and maintenance to avoid accidents.

1). Do not place newspapers, clothes, and other items on the motor controller because of the heat generated by the motor controller.

2). Use the motor controller carefully to avoid liquid splashing and keep dry.

3). Check the wiring connection of the motor controller every month and tighten it on time if it is loose.

4). When the motor is replaced and reconnected, the armature and motor end should not be incorrectly connected, otherwise the motor controller will be damaged.

5). When the battery is charged, the key switch should be turned off and taken away to ensure that the charging circuit and motor controller are cut off.

6). It is forbidden to step on the accelerator pedal urgently or frequently, so as not to shorten the service life of the accelerator control system.

2.Use and maintenance of battery banks

The battery set is equipped with an electric vehicle lead-acid battery, unit rated voltage 8V, rated capacity 155Ah, composed of 6 units batteries in series battery set, to provide enough power energy for electric vehicles.

3.To ensure personal and equipment safety, operators should follow the following precautions:

1) Special trained personnel shall be required to replace, maintain, and charge batteries.
2) Do not place conductive objects on the battery to prevent short circuit of the battery. Clean the dust and dirt on the battery cover frequently to prevent the filling hole cover or the air hole on the screw plug from being blocked. If a solid oxide is found on the pole, remove it so as not to affect the conductivity between the pole and the terminal. After cleaning up, wipe the battery surface clean, and put battery-terminal grease on the pole and terminal to ensure that the pole is not oxidized.
3) When the battery power is insufficient, it is strictly prohibited to start the vehicle; When the battery is being used, over-discharge and high-current discharge for a long time should be avoided, otherwise it will reduce the service life of battery.
4) When charging the battery, the electrolyte temperature shall not exceed 45℃ (113°F), otherwise should try to cool it down, if the temperature still does not drop, suspend charging, until the temperature drops, then continue to charge.
5) Battery charging will produce flammable and explosive gas, so the charging area is strictly prohibited fireworks; Open flame is strictly prohibited during use.
6) Check whether the battery connection is loose or damaged when starting the vehicle each time and adjust or replace it on time; Ensure that the connection of the wire in the process of use and charging must be completely reliable.
7) Do not let any dust fall into the battery, check, and wipe the air hole frequently to prevent the battery seal cover ventilation blockage.
8) Check battery electrolyte level height (every other week in winter, every 3 days in summer), do not let the battery plate and baffle above electrolyte; Appropriate add distilled water, keep the electrolyte level higher than the plate 15mm is appropriate. It is strictly prohibited to add mineral water, tap water, river water, battery replenishment solution, etc.
9) If the battery is not used for a long time, it should be maintained and charged once a month, otherwise it will cause the battery plate to vulcanize. If the battery is not maintained for a long time, the capacity and life of the battery will be seriously affected.
10) It is strictly prohibited to adjust or twist the terminals during the operation of the vehicle to prevent battery explosion caused by sparks.
11) In the process of checking and measuring the battery, do not step on collision battery cover, liquid injection cover and other battery parts to avoid damage.
12) When batteries run at low temperature, the capacity of lead-acid batteries decreases. 13) Therefore, take proper insulation measures for batteries. The recommended ambient temperature for charging and using batteries is 5-40 ° C (41°F – 104°F). When the vehicle is stored in a low-temperature environment, the battery may freeze. It is necessary to move the vehicle into a warm room and let it melt slowly, and then charge and use it after melting.
The battery must be charged the same day after discharge (regardless of vehicle travel time and mileage).

4.Charging

1) The charger should be placed in a safe working environment, free of dust, corrosive gas, rain, and temperature not higher than 40°C (104°F).

2) Firmly insert the plug of the charger and the battery bank according to the polarity, and then connect the input power of the charger to charge the battery.

3) The vehicle is equipped with an automatic intelligent charger, which can fully charge the battery bank without personnel monitoring. After the battery is fully charged, the charger will automatically shut down.

4) Good ventilation should be maintained during charging to avoid explosion caused by hydrogen accumulation.

5) When maintaining batteries, use tools with insulated handles to prevent battery short circuit and personal injury.

6) Requirements for input power of the charger:

Voltage: single AC 100V-230V

Power socket: 16A

Conductor cross-sectional area ≥2.5 square mm

5. Clean the Golf cart

1) Decorative parts of the dirt can be used neutral detergent or low concentration soapy water-soaked sponge or soft cloth wipe, decontamination after rinsing with water.

2) Cleaning the exterior of the vehicle body should be cleaned with flowing water to remove dirt on the surface of the car body. It can also be soaked and scrubbed with sponges to avoid scrubbing with hard things to avoid damage to the paint layer.

3) When cleaning the bottom of the car, pay special attention to the electrical parts, especially the driving motor, controller, etc., absolutely do not let water infiltration, so as not to lead to the reduction of electrical insulation, electrical damage.

Section 15 Trouble shooting

1.Mechanical fault

Fault	Reason	Solution
The tires wear unevenly	Low tire pressure	Inflate to recommended air pressure
	Wrong toe-in	must be aligned to properly operate the toe
Motor noise	Bearing abrasion	Change the bearing
The steering is not flexible enough	Steering box cover water or grease solidification	Clean the cover, replace gasket and Inject proper lubricating oil
	Hinge lack of grease	Replenish grease
	Rack out of shape	Adjust the rack
Steering wheel is prone to jitter	Uneven air pressure of the tires	Adjust tire pressure
	Wobbling of wheels	Repair or replace
	Rim nut loose	Tighten the nut
	Wheel bearing wear or damage	Replace
Braking force is inconsistent	Uneven air pressure of the tires	Adjust tire pressure
	Wheel braking force is uneven	Adjust the braking pad
Braking force is not enough	Braking pad wear seriously	Replace the braking pad
	Poor contact between brake pad and brake hub	Adjust clearance, repair worn parts and improve the connection.
	Braking pad has dust or water	Clean
Reverse drag won't work	Controller broken	Check the controller and replace the related parts

2.Electrical faults

Fault	Reason	Solution
When turn the key switch on, the battery power does not display, and the contactor has no "ta-da" sound	The key switch is disconnected	Repair or replace
	The circuit connector is loose or cutting out	Tighten the ends or connect the wires
	Battery joint oxidation	Clean with abrasive paper
	Circuit burns out	Replace
	Wrong connect for positive and negative	Makes the connect right
When turn the key switch on, the battery power does not display, and the contactor has "ta-da" sound	The accelerator doesn't return to the right position	Replace
	Gear switch fault	Repair or replace
	Accelerator fault	Repair or replace
	Speed controller fault	Repair or replace
	Motor fault	Repair or replace
	Damp or drenching of the controller	Inspection and drying
The vehicle is stop-and-go	Over-current or overheating protection system starts	Check and exclude whether the PSPK board opened, whether it has been carried and climbs uphill for a long time.
Flame out immediately after starting	Out of power	Charge the battery
	Motor fault	Check and repair
The golf cart can't start	The key switch is on the off location, or the forward/reverse shift switch is on the neutral location	Turn the key to the ON position to select the driving direction of the shift switch
	Battery has no power	Test the density of the battery electrolyte and recharge it.
	Battery wiring electrodes are corroded or loose	Clean the corroded parts and tighten the connecting nuts
	The key switch wire is loose or damaged	Tighten the wire and repair the key switch
	Microswitch broken	Replace the microswitch
	Contactor fault	Repair or replace contactor
	Motor fault	Inspect faulty parts, repair, or replace it
The battery cannot be charged.	Charger fault	Check the fault of the charger, repair or replace parts
	The connection wire is loose or detached	Check and tighten the nut
	Battery fault	Replace the battery
	The charging voltage is too low	Adjust the charging voltage
	Over discharge of the battery caused a complete blackout	Test and adjust the battery electrolyte density, Replace the electrolyte or battery pack if necessary
The speed instability	Accelerator fault	Replace the accelerator

3.Battery fault

Fault	Characteristic	Reason	Solution
Reduction in Pack Capacity	1.The rated capacity is not reached, or the capacity is insufficient	Undercharge	Equalize charging and improve operation methods
		The density of the electrolyte is not enough	Adjust the electrolyte density
		The resistance of the external line is large	Reduce the resistance
	2.The battery capacity decreasing gradually	The battery plate sulfating	Charge repeatedly and replace if necessary
		The electrolyte is mixed with impurities	Check the electrolyte and replace it if necessary
		Short circuit	Exclusion
	3.The battery capacity decreasing suddenly.	Short circuit	Check the reason
Abnormal voltage	1.The voltage is high when the battery is charged and quickly decreases when it is discharged	The battery plate sulfating	Clean the battery plate
	2.During use of battery, The open circuit voltage decreased significantly	Anti pole, short circuit	Check the voltage of each battery
High temperature of the electrolyte	1.During charging, the liquid temperature rise anomaly.	Charging current is too small or internal short circuit	Adjust the charging current or replace the short circuit cables.
	2.Some battery temperature is higher than others	The battery plate sulfating	Clean the battery plate
Electrolyte color and density are abnormally	1.The density of the electrolyte rise a little or no change	The battery plate sulfating	Clean the battery plate
	2.The density decreased during storage	The battery self-discharges seriously	There are impurities in the electrolyte, and it should be replaced
	3.The color and smell of the electrolyte are abnormally, with turbidity precipitation	The electrolyte is impure, and the active substances fall off	Replace the electrolyte and clean the battery

Section 16 Fault information

Fault code

Note: Hexadecimal is the display code, and hexadecimal is the controller lights up to show the fault

The controller displays red and green lights alternately.

Fault code		failure level	Fault name	Mark
Hexadecimal	Decimalist			
1	1	1	Main cable with high voltage	
2	2	1	Battery with low voltage	
3	3	20	launch condition error	
4	4	20	Time to make maintenance	
5	5	1	Flash error	
6	6	1	Main cable with low voltage	
7	7	20	Main cable with high voltage, Limit the brake current output.	
8	8	1	Drives overcurrent	
B	11	1	Main contactor adhesion fault	
C	12	3	The battery pack capacity is too low	
D	13	5	The traction motor temperature is too high	
F	15	1	The traction motor loss current	
11	17	1	Contactor cable overcurrent	
14	20	5	Drive with high temperature	
1B	27	1	Drive overcurrent	
25	37	1	Controller 5V output under voltage	
26	38	1	Controller 12V output under voltage	
27	39	2	Motor stalling	
28	40	15	Drive 1 output overcurrent	
29	41	15	Drive 2 output overcurrent	
2A	42	15	Drive 3 output overcurrent	
2B	43	15	Drive 4 output overcurrent	
2C	44	15	Drive 5 output overcurrent	
2D	45	15	Drive 6 output overcurrent	
2E	46	15	Drive 7 output overcurrent	

Section 17 Warranty information

Limited Warranty

THE WARRANTY

Champion Motorsports Group offers the following warranty to the initial purchaser of this new RACKA product. The initial purchaser is defined as the first person to purchase a new RACKA product from an Authorized Retailer.

The limited warranty period for this product is **2 YEARS** from the date of the purchase as shown on the original sales receipt.

WHAT IS A DEFECT?

The Product is warranted to be free from manufacture defects in material and workmanship for a period of **2 YEARS** from the date of purchase shown on the sales receipt. During this period of time Champion Motorsports Group will, at its option, either repair, refund the purchase amount, or replace any original RACKA unit/part which is covered by this warranty that is proven to be defective in workmanship or material.

TO QUALIFY FOR THIS WARRANTY THE PRODUCT:

1. Must have been purchased from Champion Motorsports Group or from an Authorized RACKA Retailer.
2. Must not have been used in a manner inconsistent with the intended use of the vehicle such as competition or used in a manner not consistent with the intended use for the vehicle which would also include rental or commercial use.

WHO CAN PERFORM REPAIRS UNDER THIS WARRANTY?

Repairs under this warranty should be performed by an Authorized RACKA Retailer or comparable servicing dealer.

HOW TO GET SERVICE UNDER THIS WARRANTY

To get warranty service, call Champion Motorsports Group at 888-405-8725 for the location of your local service retailer/dealer. Please do not return the product to the retailer where the product was purchased unless instructed to do so by Champion Motorsports Group. The retailer of this product does not make any warranty on behalf of Champion Motorsports Group without the approval of Champion Motorsports Group. **A COPY OF YOUR VEHICLE SALES RECEIPT IS REQUIRED FOR WARRANTY SERVICE.**

WHAT THIS WARRANTY DOES NOT COVER

This warranty does not cover the following:

1. Damage to lack or improper maintenance as described in this manual.
2. Damage which is caused by normal use and not caused by a defect in materials or workmanship.
3. Use of the product which is not consistent with the intended use as described in the operating instructions.
4. Any expendable maintenance items which need replacement or service as normal maintenance requires unless these normal maintenance items become defective prior to their normal life due to a material defect or a defect in workmanship.
5. Any product which has been altered or modified in a manner not consistent with the original design of the product or in a manner not approved by Champion Motorsports Group.
6. Tires
7. Damage or failures due to abuse, neglect, or misuse of the product.

LIMITATIONS OF THIS WARRANTY

This warranty does not cover, and Champion Motorsports Group disclaims any responsibility for:

1. Loss of time or loss of use of the product.
2. Transportation costs to and from the authorized center.
3. Other loss or damage to other equipment or personal items.

LENGTH OF IMPLIED WARRANTIES

Any implied warranties are limited to the duration set forth in this warranty. Champion Motorsports Group does not make any claim as to the merchantability or fitness for a particular purpose which would extend longer than the duration of this written warranty.

Check your State Laws, as some State Laws do not allow limitations as to the duration of an implied warranty. Some States may also not allow limitation or exclusions based on incidental or consequential damages.

Section 18 Common FAQ

What are some recommendations when transporting the Golf Cart?

The windshield NEEDS to be removed during transportation. The roof NEEDS to be strapped down as well.

Can I add a hitch to the Golf Cart?

Champion Motorsports Group does not sell a hitch receiver or hitch.

How long is the warranty?

The warranty is for two years and begins on the date of purchase as shown on receipt.

What is NOT covered in the warranty?

Transportation back to the store or service center is NOT covered by the warranty. Normal wear and tear (for example, seats or tires) are NOT covered by the warranty.

What is the top speed?

Golf Carts sold in Florida and California cannot exceed 15 MPH while Golf Carts sold in the rest of the US cannot exceed 20 MPH.

Where can I drive the Golf Cart?

The RACKA Golf Cart is designed as an Off-Road vehicle. Please refer to your local DMV about your municipality's rules and regulations regarding driving the Golf Cart as each state is different.

Where can I charge the Golf Cart?

Always charge and store your electric golf cart outdoors and away from structures; this is true for all electric golf carts. Do not use an extension cord when charging your cart, only use the included charging cord and box that was included with your unit.

What kind of battery is used in the Golf Cart?

The Golf Cart uses 6 Deep Cycle AGM Lead Acid Batteries. AGM Batteries are spill proof and as a result, they are considered maintenance free. Additionally, they have higher output, shorter charging time and longer lifespan when compared to standard lead acid batteries.

How do I avoid Flat Spotting my tires?

The tires may flat-spot if they are not used for extended periods of time so moving the cart frequently will help prevent flat-spotting. If your tires flat spot, take the Golf Cart for a drive so the tires can warm up and regain their shape.

How do I return the Golf Cart?

Please contact Champion Motorsports Group customer service (888-405-8725 or support@champmoto.com) before returning the Golf Cart. Customers will need to bring their Manufacturer's Certificate of Origin (MCO) or Title with them when they return the Golf Cart.

Where should I store the Golf Cart when not in use?

Store your Golf Cart outside away from structures when charging or sitting turned off.

Section 19 Manufacturer Certificate of Origin (MCO)

The Manufacturer Certificate of Origin (MCO) is a certificate provided by Champion Motorsports Group to the original purchaser of a RACKA vehicle. An MCO can be used to provide proof of ownership, as well as obtain a title for the vehicle at their local DMV, depending on state/local guidelines.

HOW TO OBTAIN AN MCO

Email the following information to MCO@champmoto.com:

1. Model number of vehicle
2. 17-digit Vehicle Identification Number (VIN)
   Note: The location of the VIN# for the vehicle can be found in the Owner's Manual.
3. Full name, mailing address, and phone number
4. Store name and address where purchased
5. Scanned copy of purchase receipt

Note: An MCO will need to be signed by the store the vehicle was purchased from.

MANUFACTURER CERTIFICATE OF ORIGIN FAQ

If my vehicle did not come with an MCO at the time of purchase, what should I do?

Email the information included in the above section "HOW TO OBTAIN AN MCO" to MCO@champmoto.com.

Please note: an MCO will only be issued to the original purchaser of the RACKA vehicle.

Can my MCO be emailed to me?

No; an MCO is a legal document and can only be issued via mail.

I lost my MCO; what can I do?

There is a small fee to re-issue an MCO. Please contact Champion Motorsports Group at 888-405-8725 for more assistance.

4120 E. Scyene Road, Mesquite, Texas 75181
champmoto.com