



OWNER'S MANUAL



TURFMAN SERIES

VERSION :20200129001

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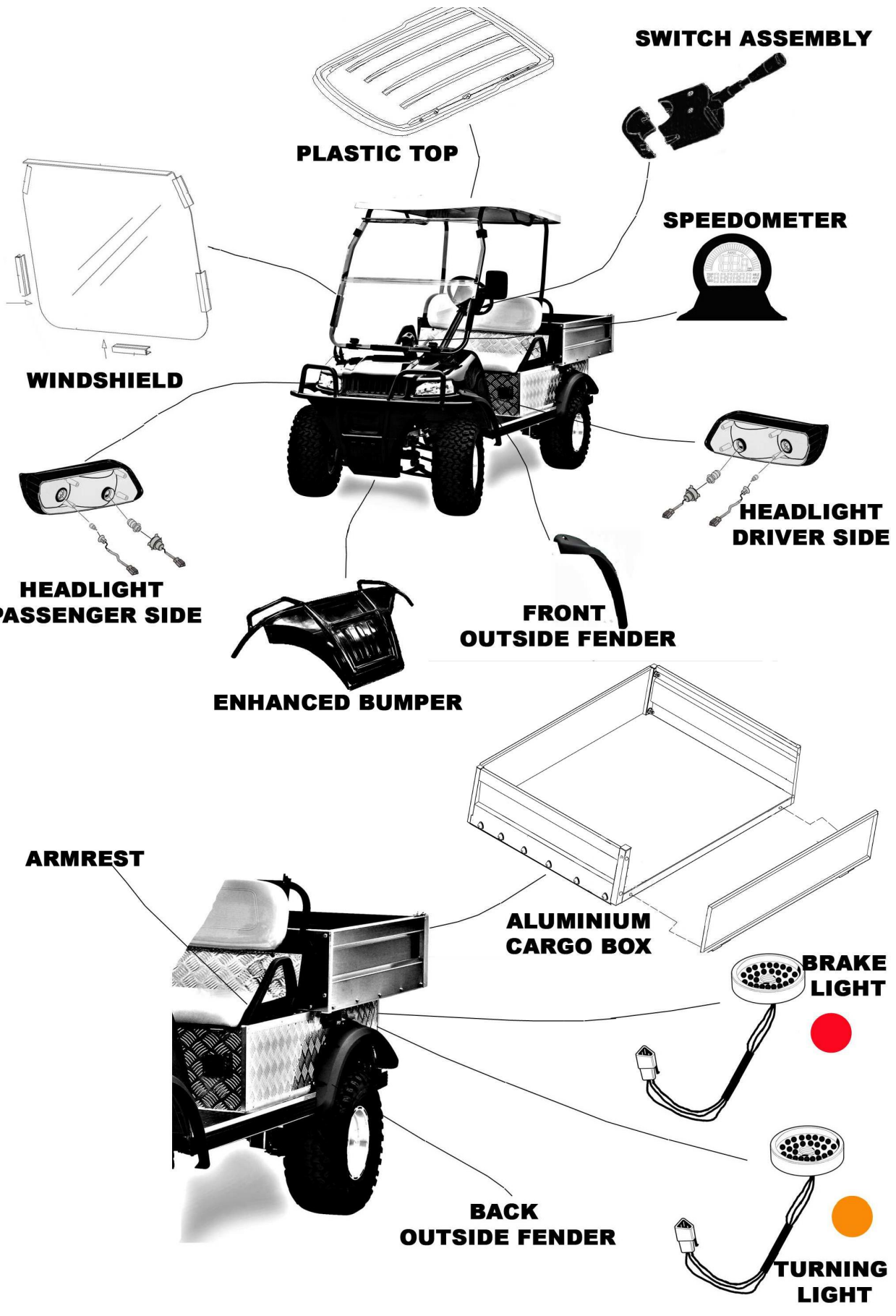
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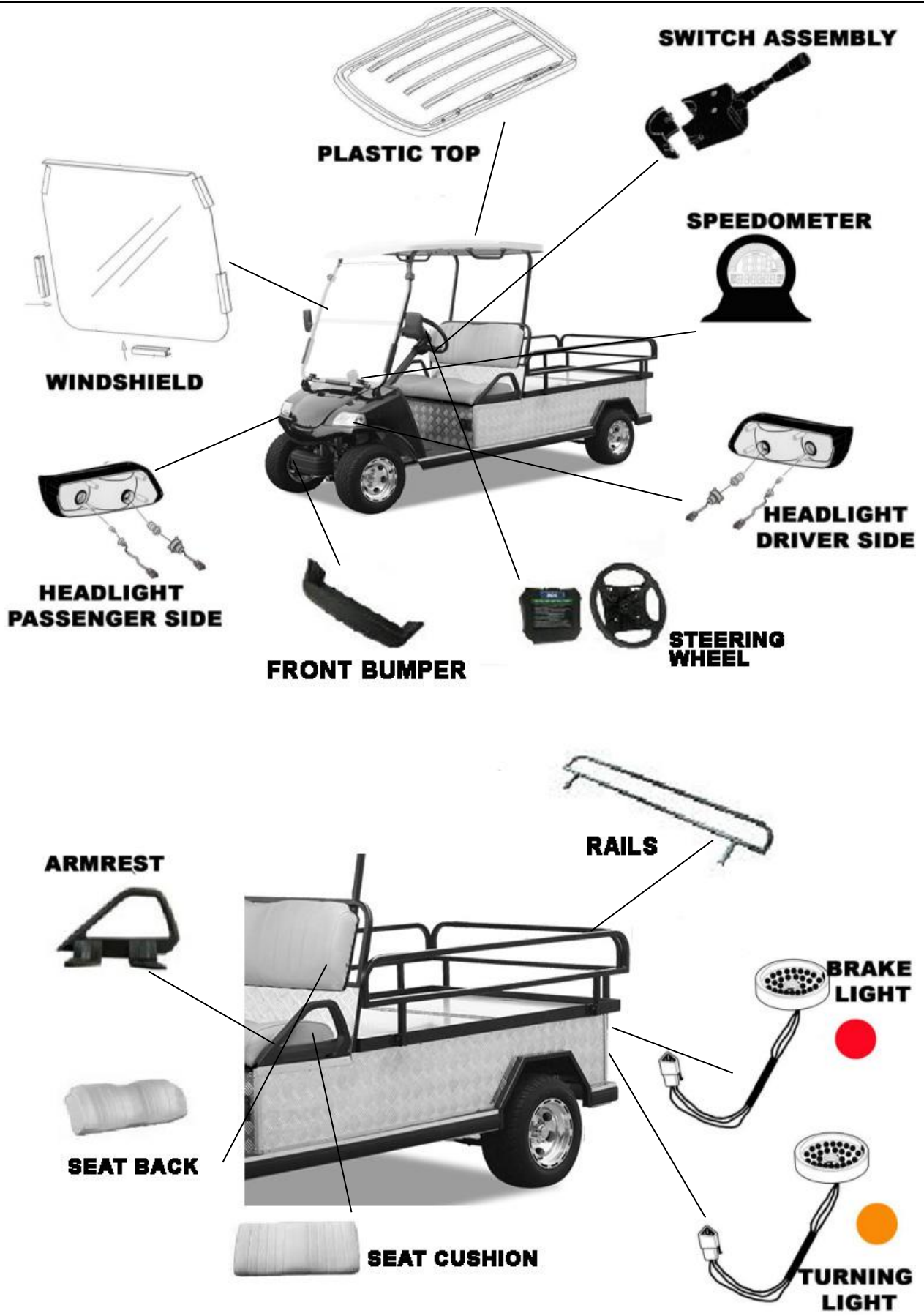
	NAVY BLUE
	WHITE
	YELLOW
	GREEN
	RED
	BLACK
	GOLD
	BEIGE



EVOLUTION VEHICLE VARIES DOZENS OF COLOURS FOR YOU TO CHOOSE

SPECIAL COLOURS REQUIRED , ALL WILL BE DONE BY EVOLUTION



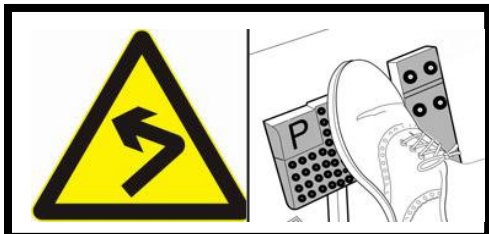




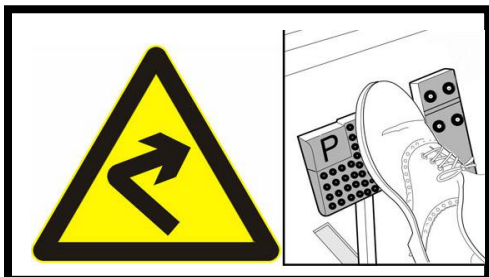
NO CHILDREN ARE ALLOWED TO PLAY WITH THE VEHICLE



**DO NOT DRIVE THE VEHICLE OVER 25MPH/H
OVER SPEED DRIVING MAY CAUSE SEVERE INJURY**



**WHEN COMMIT SHARP LEFT TURN APPLY BRAKE TO
LIMIT SPEED**



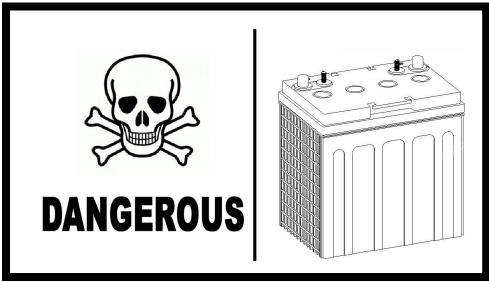
**WHEN COMMIT SHARP RIGHT TURN APPLY BRAKE TO
LIMIT SPEED**



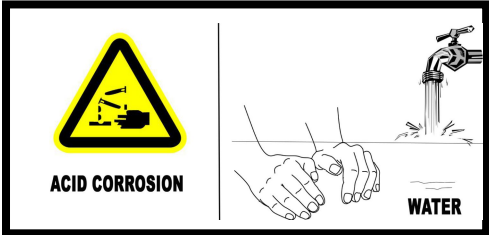
**APPLY BRAKE TO LIMIT SPEED WHILE DRIVE ON STEEP
HILL**



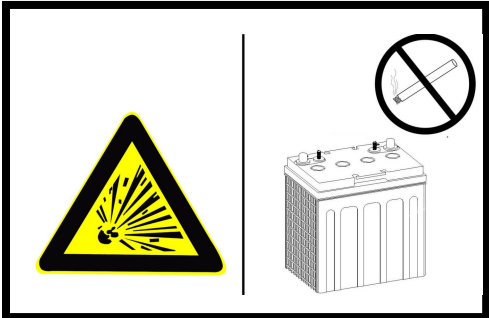
**DO NOT DRIVE VEHICLE ACROSS SLOPES IN EXCESS
25%**



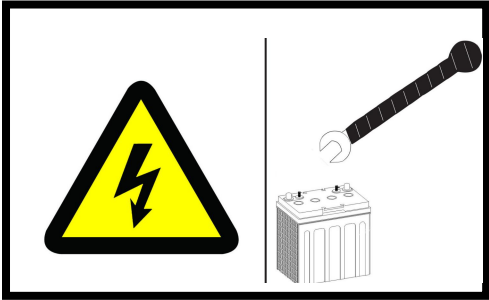
BATTERY POSTS, TERMINALS AND RELATED ACCESSORIES CONTAIN LEAD AND LEAD COMPOUNDS, CHEMICALS KNOWN CAUSING CANCER AND REPRODUCTIVE HARMS



WASH HAND AFTER HANDLED BATTERY



THE BATTERY WILL GENERATE HYDROGEN GAS IN CHARING PROCESS .KEEP SMOKE AND STATIC ELECTRICITY AWAY FROM BATTERY



USE ISOLATED WRENCH TO OPERATE ON THE BATTERY IN CASE BATTERY SHORT CIRCUIT . SHORT CIRCUIT GENERATE BIG CURRENT WILL CAUSE INJURY

Grand Safety information

Owner’s manual contains safety regarding information , when followed decals come up ,owner



Indicates the regarding situations , is very important .



Indicates the regarding situations ,may cause minor injury or other lose



Indicates the regarding situations ,may cause death or serious

EVOLUTION corporation mainly dealing with five types of the electric vehicles, such as electric golf car, shuttle bus, utility cart, engineer and transportation cart, and special electric car, among which DEL3022G series are electric golf car. Our golf car is environment-friendly and suitable for use in course, hotels and other business places .All the key components are imported from well known companies .The whole car it is with new fashion design. Stable performance ,flexible control, and comfortable driving. Our golf car be used as people mover or utility car in vacation villages ,villa areas , resort hotels private residential areas, tourist scenic spots ,or any other place where this type of golf car is allowed .

The warranty papers is to standardize the after-sale service for export vehicle, settle the claims efficiently and improve our after-sale service. .

EVOLUTION electric vehicle corporation dedicate in electric vehicles manufacture since 2006,EVOLUTION customers scatter all over the world, EVOLUTION electric vehicle corporation promise any client who bought EVOLUTION vehicles ,EVOLUTION technicians will be always be ready for fix problems for you. We provide splendid quality of after sale service .

For more warranty information please see limited warranty papers ,that customers receive while purchase EVOLUTION vehicles

* Vehicle's serial number




201189678

Manufacturing year

201189678

Vehicle's serial number

Vehicles manufactured by EVOLUTION corporation, all have vehicle's serial number on the left side of the chassis frame. The front four numbers are the manufacturing year of the vehicle. The other five numbers are the vehicle's serial number given by EVOLUTION corporation. All the vehicles are documented. After the vehicles are sold out of the factory, EVOLUTION corporation will track the vehicles by using the vehicle's serial number as identity. Serial numbers are insurance warranty of EVOLUTION corporation. Customers should be aware of the importance of the vehicle's serial numbers.  **DON'T TEAR IT DOWN** while using the vehicles or in routine maintenance.

* Steering wheel decals



①



②



③

OPERATING INSTRUCTIONS

- Read owner's manual and dash-mounted safety warnings prior to driving.
- Study and understand controls.

TO OPERATE

- Turn wheels to desired direction and ensure path is clear.
- Turn key to ON position.
- While stopped, place Forward/Reverse switch in desired position:
F-Forward N-Neutral R-Reverse (Buzzer will sound)
- Park brake will release and vehicle will start moving when accelerator pedal is pressed.
- Slowly press accelerator pedal to increase speed.
- To stop, release accelerator pedal and press brake pedal.

BEFORE LEAVING

- Press park brake pedal until it locks and holds vehicle.
- Place Forward/Reverse switch in NEUTRAL position.
- Turn key OFF and remove key when not in use.

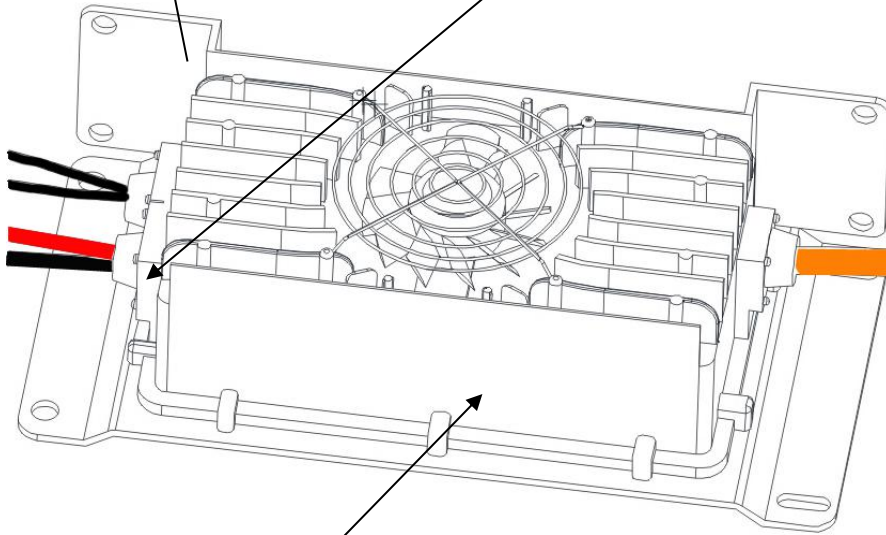
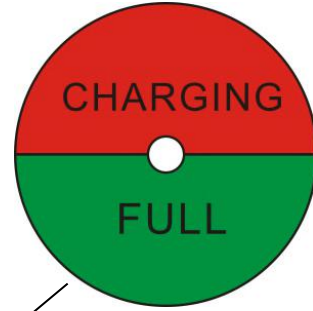
MOTOR BRAKING

- Electric motor braking provides speed regulation functions.
- For parked vehicle, beeping alarm indicates vehicle roll away.
- In operation, beeping alarm indicates reduction in motor braking.
- Apply brakes to further reduce vehicle speed as required.
- System is activated only when tow switch is in the RUN position.
- When towing this vehicle, tow switch must be in the TOW position.

CCI 102518001

- ①. Steering wheel
- ②. EVOLUTION decal
- ③. Vehicle operating instructions decal

* Charger's decals



③



LED INDICATOR STATE

Charging: Red & Green flash alternately
Full charged: Green light on

Product Encoder: C482519101800001

EVOLUTION ELECTRIC VEHICLES, INC

Safety Notice

1. Away from flammable or explosive materials and ensure adequate
2. Strictly in accordance with instruction during installation or use.
3. The Charger must match the battery pack.
4. AC Input and DC Output must be connected correctly.
5. Don't touch input and output live terminal during charging.
6. Don't disassemble the charger to avoid electric shock. Please contact personnel if necessary.



C4825 Charger Basic Parameter

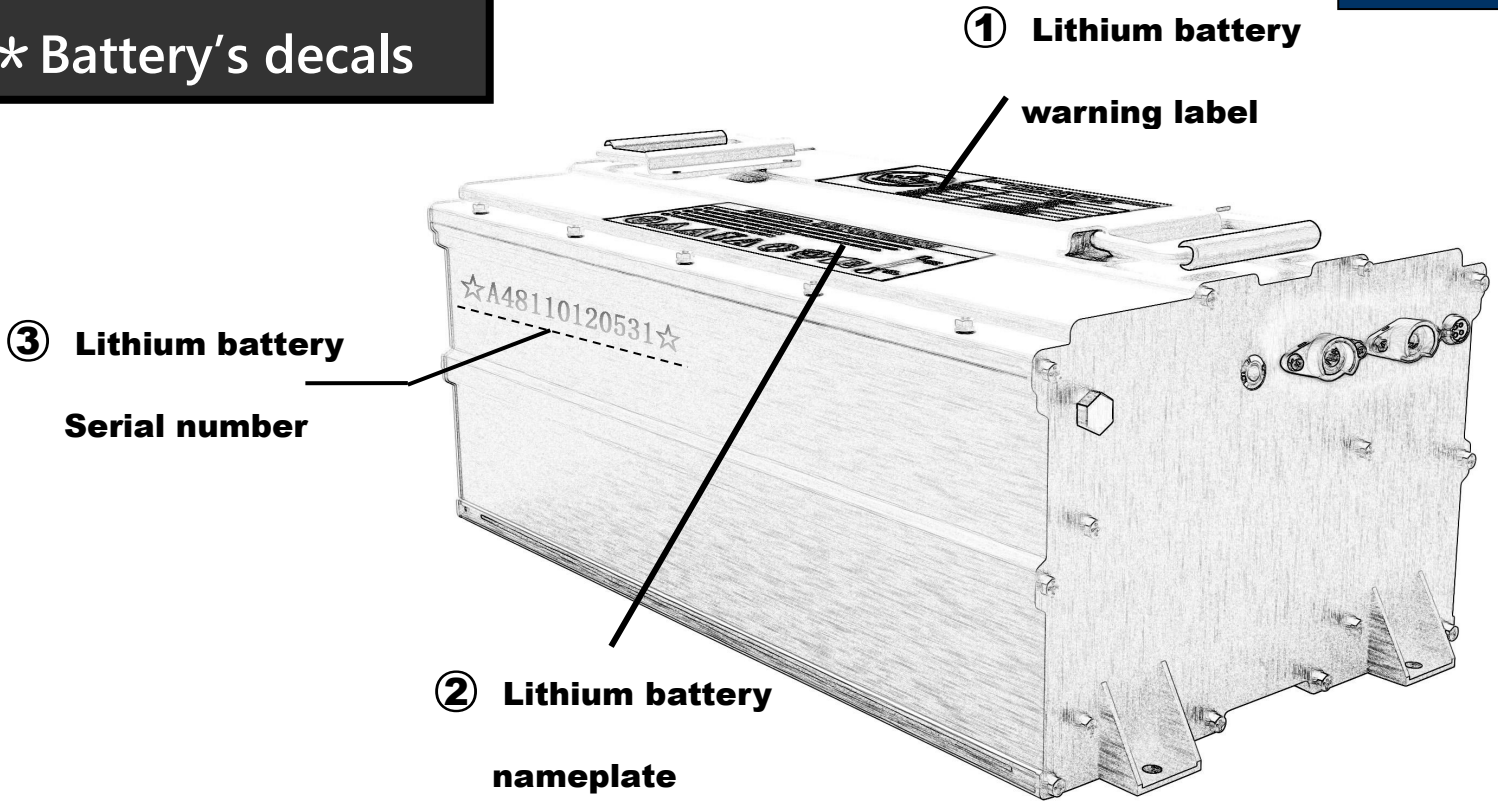
- ★ Input voltage: 85-264VAC
- ★ Input current ≤ 9A
- ★ Efficiency: ≥ 93%
- ★ Power factor: ≥ 0.98
- ★ Rated output voltage: 48VDC
- ★ Rated output current: 25ADC
- ★ Applicative battery pack:
LFP Lithium & Lead-acid battery

①. Charger

②. Charger's indicating decal

③. Charger's specification decal

* Battery's decals



① Lithium battery warning label

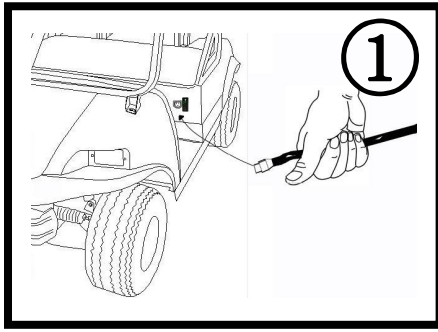
⚠ WARNING FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN SEVERE PERSONAL INJURY.

- Service, removal or installation of battery pack must be performed by authorized personnel only.
- Improper handling of batteries and electrical components can result in serious injury or death.
- Do not immerse or throw the battery pack in water. Do not pressure wash the battery pack.
- Do not operate at temperatures below -4°F (-20°C)
- Do not expose to temperatures above 140°F (60°C)

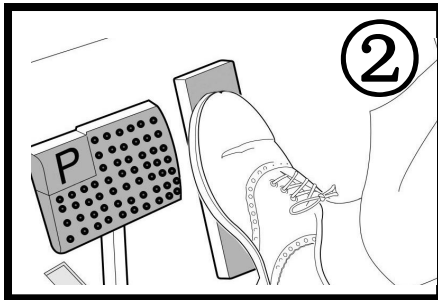
② Lithium battery nameplate

**EVOLUTION ELECTRIC VEHICLES
LITHIUM-ION BATTERY**

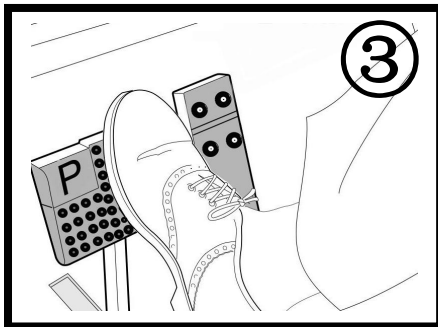
Battery Type	LiFePO4
Voltage	48V
Energy	5.28KWh
Capacity	110AH
Weight	109.7lbs(49.9kg)



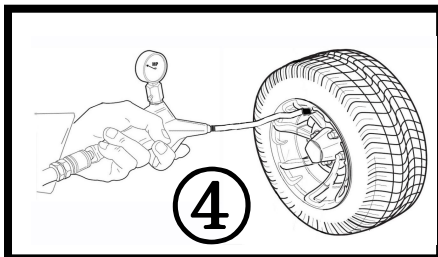
Before initiate using vehicle , the batteries should be fully charged . Charging hour should be more than 10 hours .



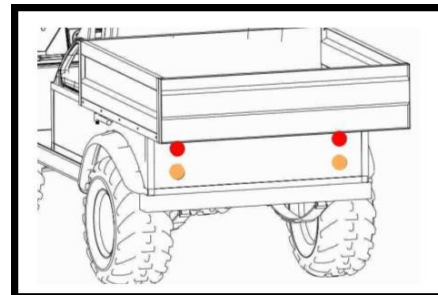
Check the accelerator pedal ,when stepped and released it should returns to its original position with full flexibility .



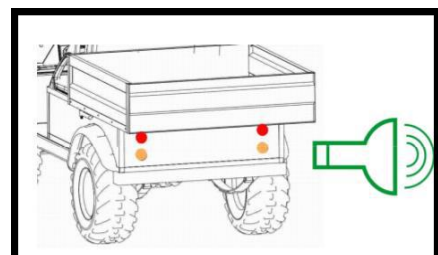
Check the brake pedal , when stepped it should be flexible and feels firm . And it returns to its original position with flexibility when released



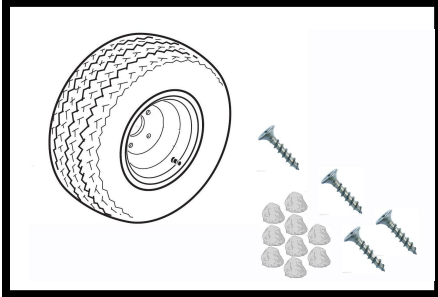
Check the tires' pressure ,it should be inflated until the internal pressure is around 20~23PSL(138kpa~159kpa)



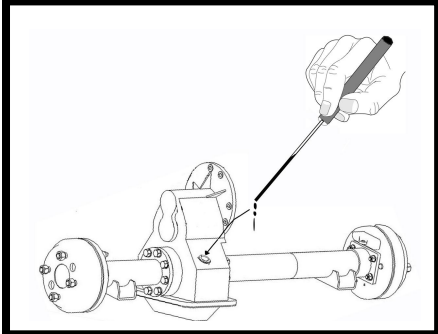
Check the signal lights , the brake lights and turning lights should be in proper working condition .



Check the reverse beeper ,when the direction selecting switch be set at "REV", it should beep soundly



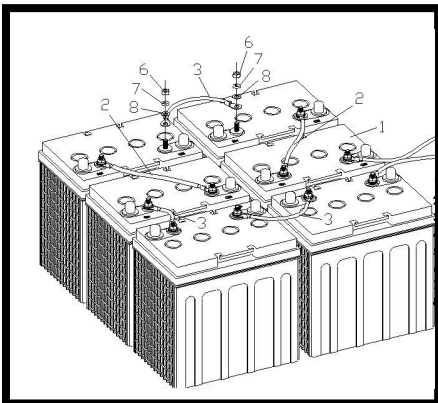
Check the tires' surface , remove any embedded objects you can find . Be sure no cracks or other damages to the tires ,defective tires may cause accident while driving .



Check the lubricant capacity the rear axle contains , use a cleaned stick , stick it into the rear axle and it reach the bottom , pull it out check the depth is should be more than 13cm (1.3L).



Pull the steering wheel up and down ,check the tightness of steering wheel .Rotate the steering wheel right and left. Be sure no excessive free play and rattling sound .



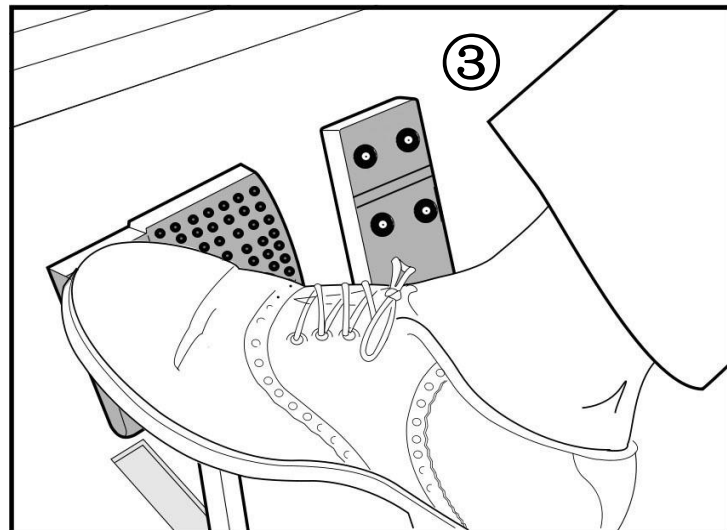
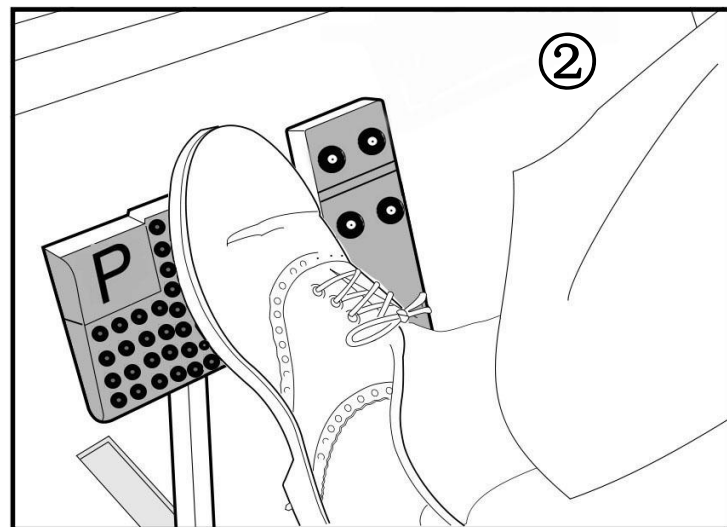
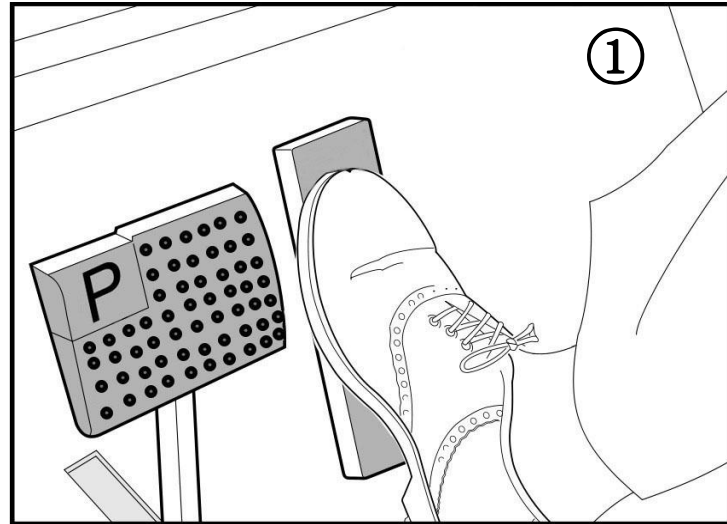
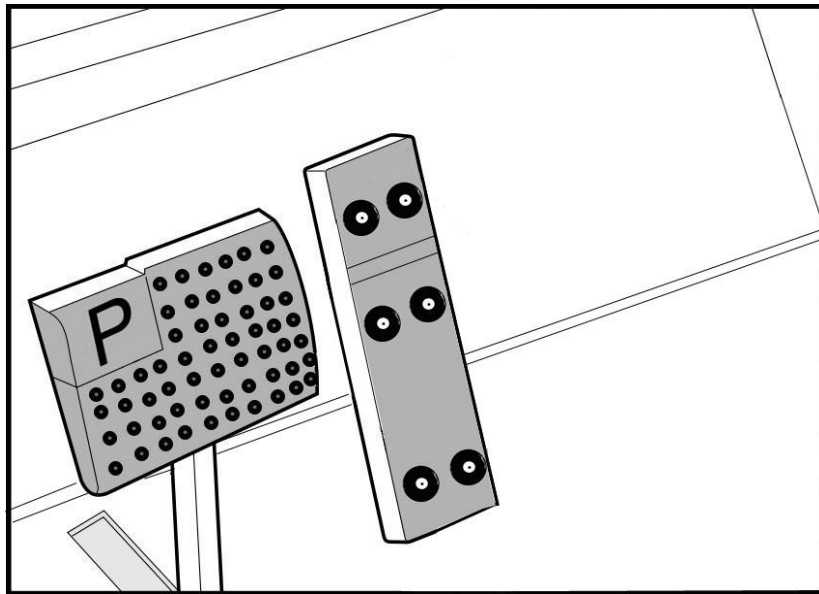
Check the tightness of the battery wiring , make sure all the nuts are solidly tight . Loose attached nuts on the battery will cause big spark while operating .

CAUTION

Pre-operations are extremely important , the owners of the vehicle should aware all the required operations need to be executed before initiate using the vehicle . The status of the vehicle is very important to the safety of the passengers on board .

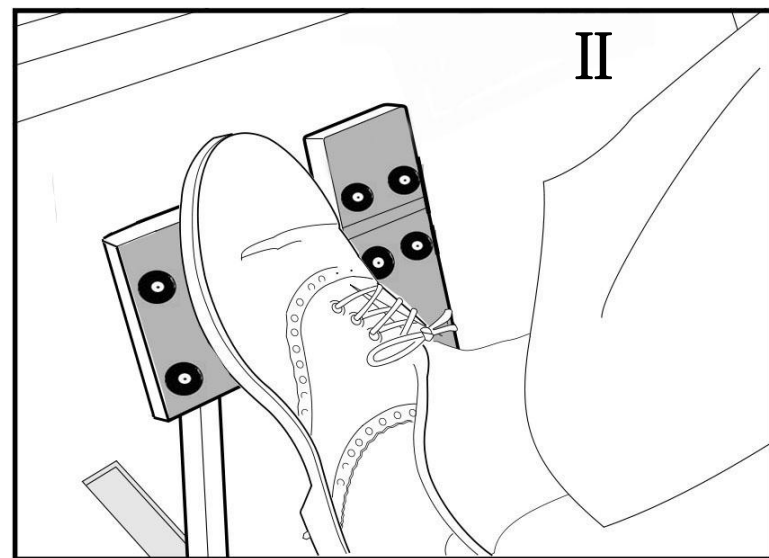
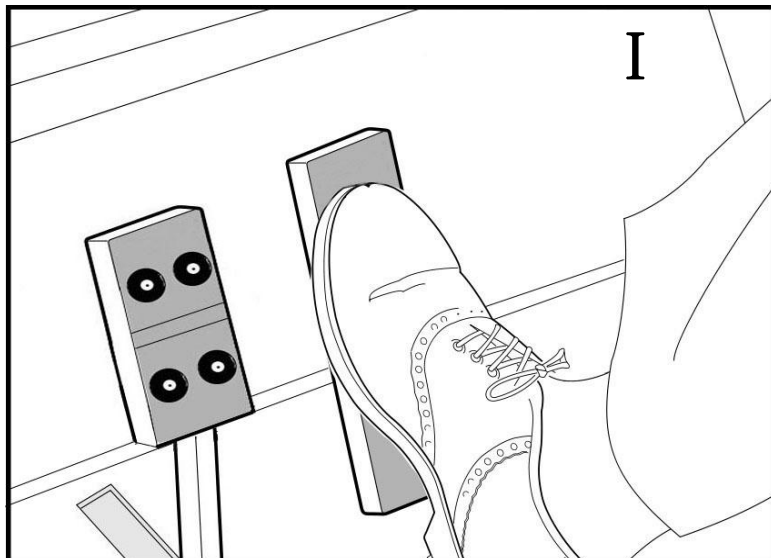
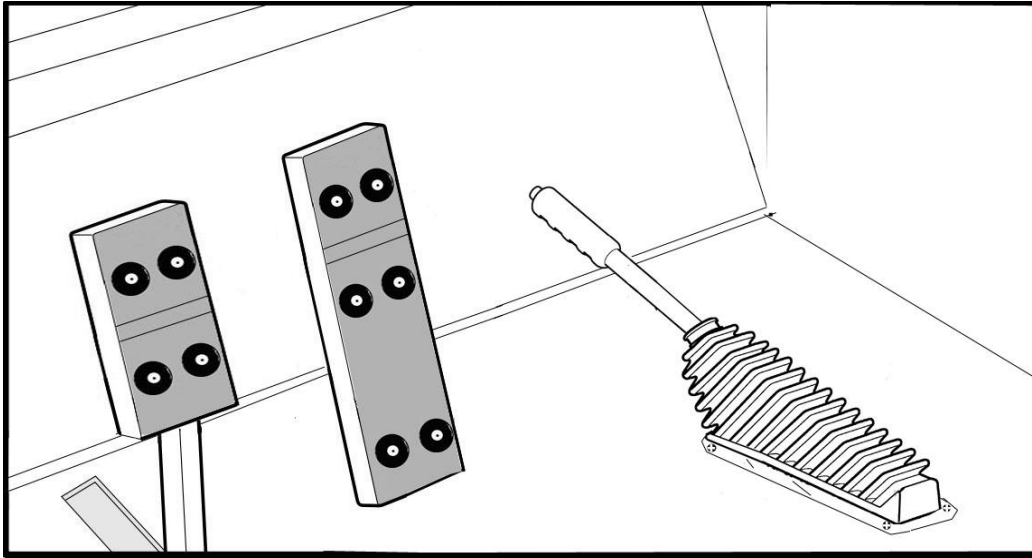
* Brake and accelerator

✘ MECHANICAL



① Use the accelerator pedal to control the vehicle's speed . ② Use the brake pedal to decrease velocity . ③ use parking pedal to keep car in static .

✘ HYDRAULIC

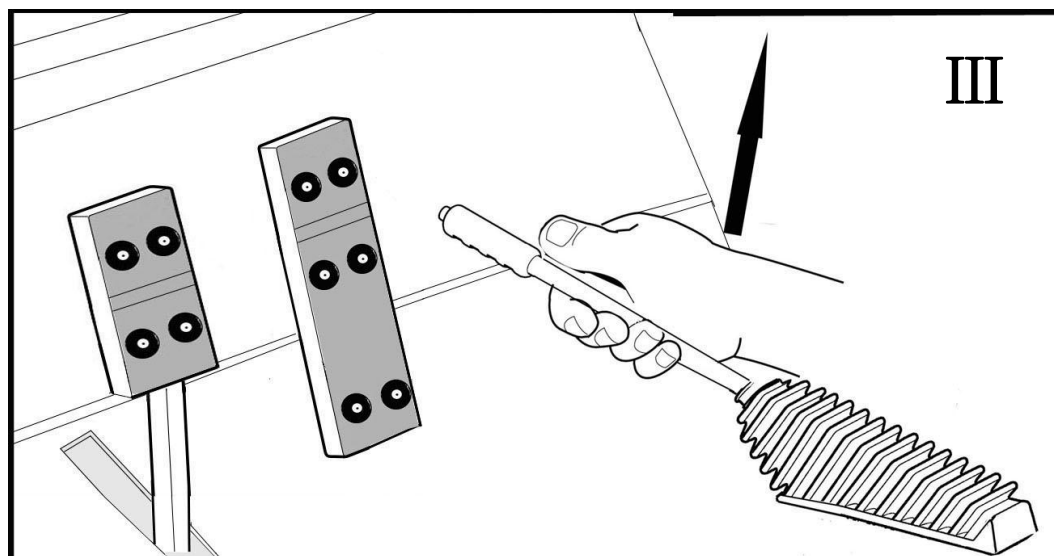


I .Accelerator pedal

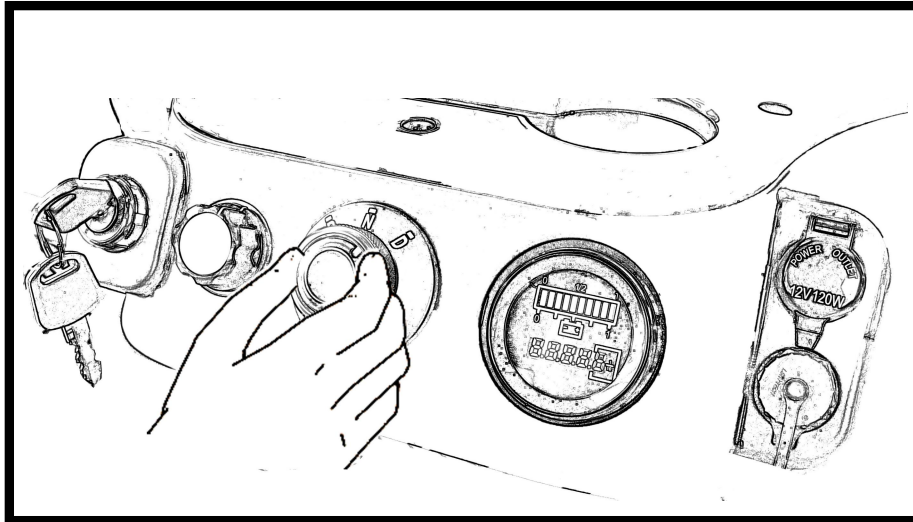
II . Brake pedal

III. Hand brake

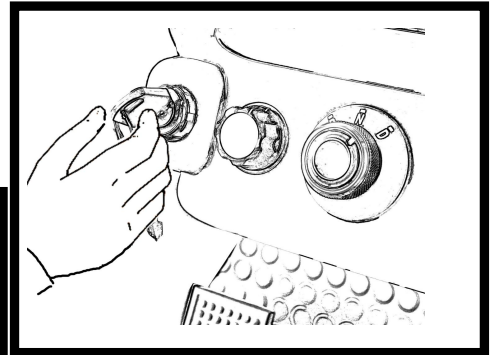
(Functional as parking pedal).



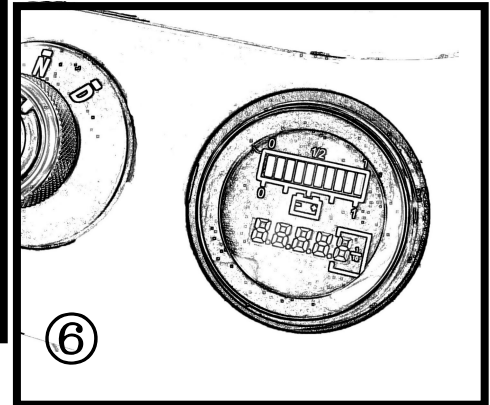
* Key switch and indicators



⑤

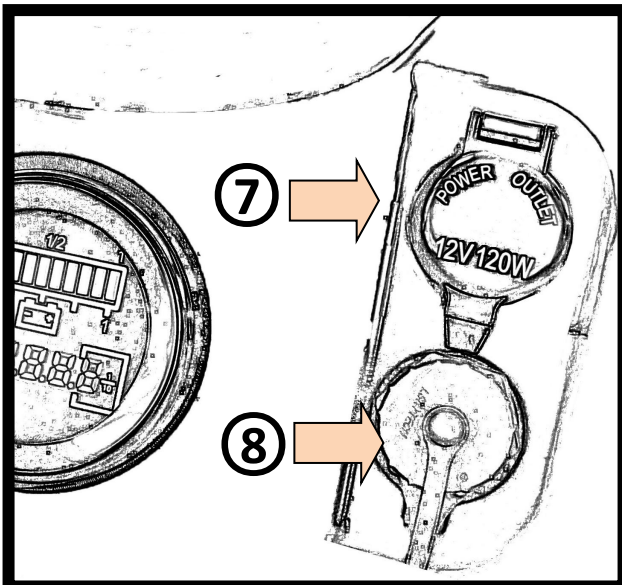


④



⑥

④ Use key switch to turn on the main power. ⑤ Use direction selecting switch to change the vehicle's moving direction. ⑥ Use the battery meter to show the power of battery (for Lithium battery or Lead-acid battery)



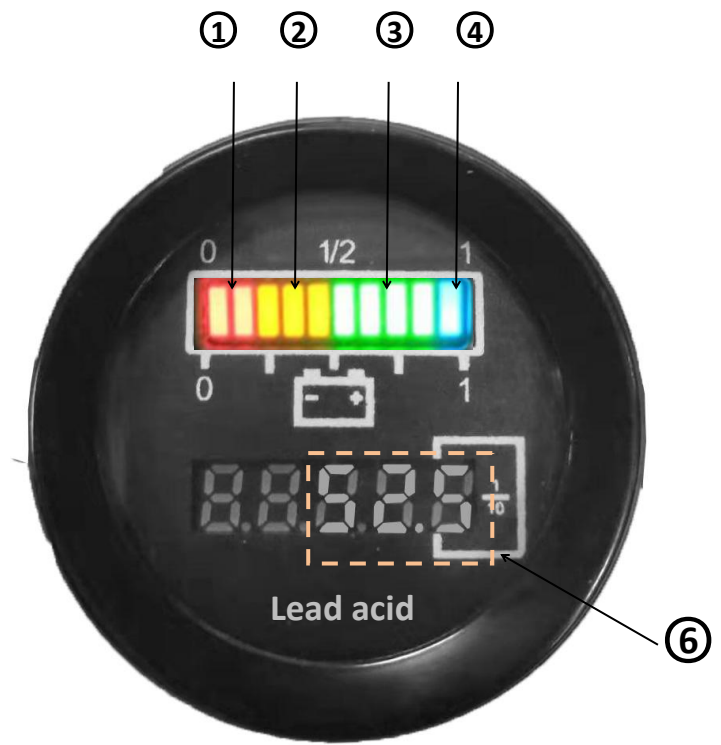
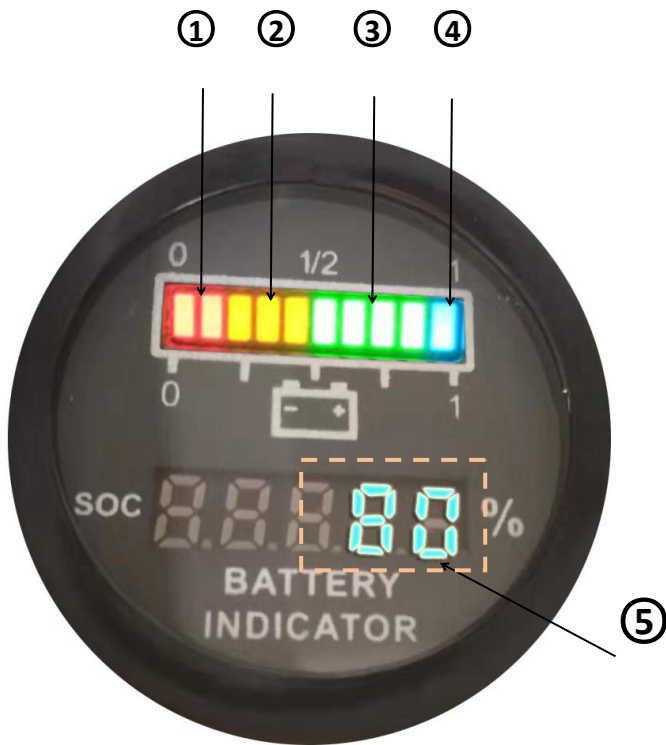
⑦ 12V 120W power adapter socket

⑧ Dual 12V USB Charger socket

* Key switch and indicators

Lithium battery meter

Lead-acid battery meter

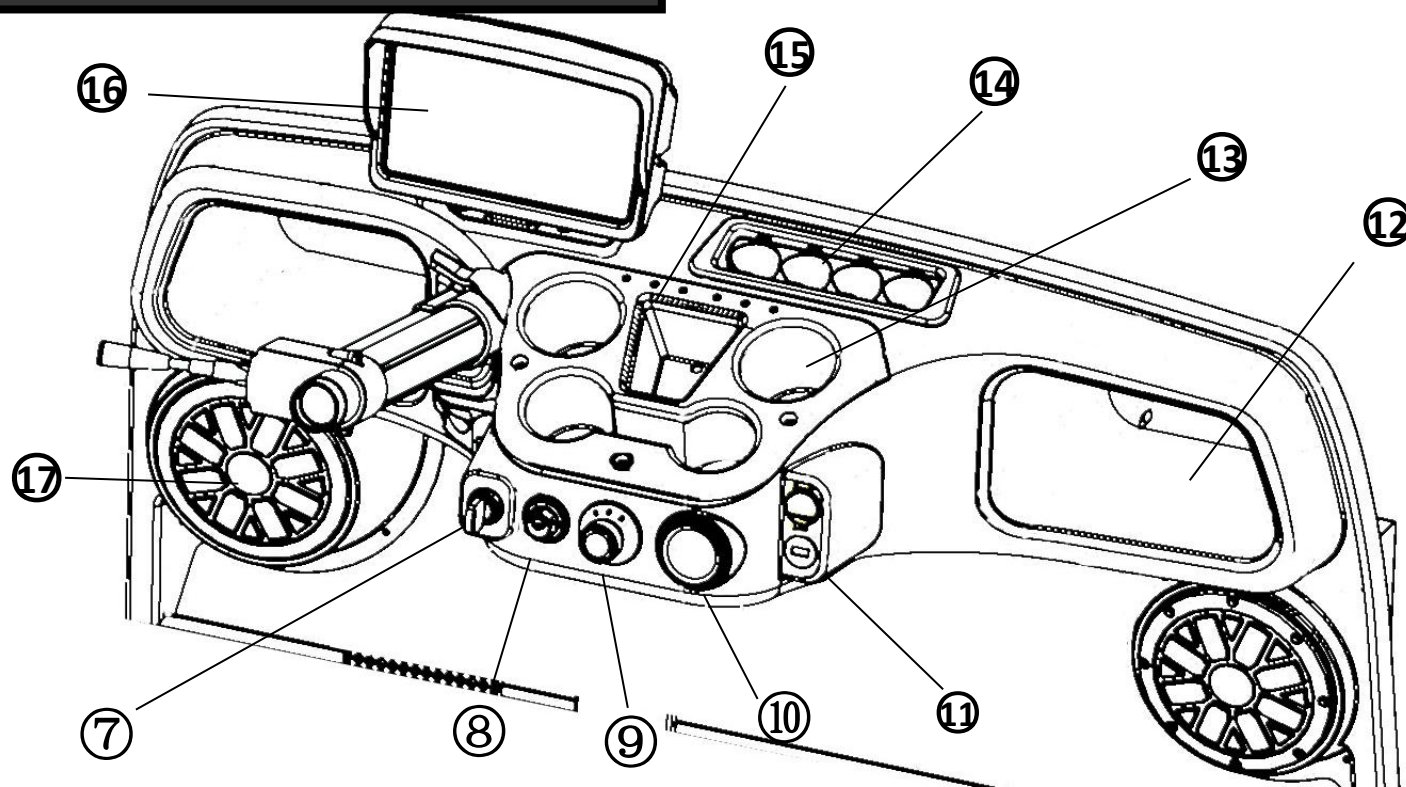


Battery Meter for lithium battery and lead-acid battery:

Each LED light grid indicates 10% power of battery pack.

- ① Blue LED light indicates 90%-100% battery power.
- ② Four green LED lights indicate 60%~90% battery power.
- ③ Three Yellow LED lights mean 30%-50% battery power left.
- ④ Last two red LED Lights indicate only 0-20% battery power left, and the battery pack needs to be charged immediately.
- ⑤ The LED digital in the below tablet indicate the SOC of lithium battery pack. (For lithium battery only)
- ⑥ The LED digital in the below tablet indicate the total running time of the golf cart. (For lead-acid battery only)

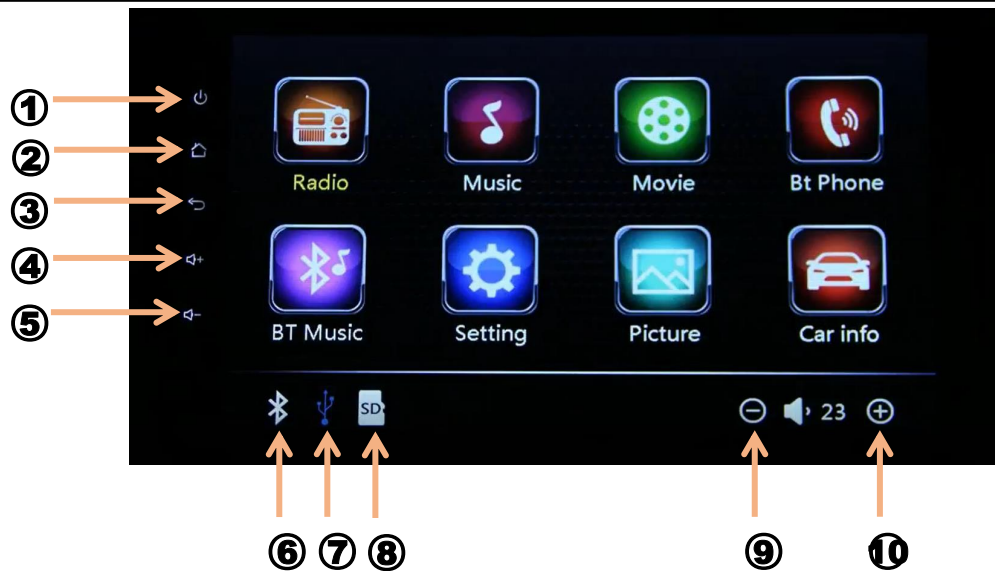
* Dashboard functions



- ⑦ Key switch
- ⑧ Wiper switch (Optional): When installing wiper motor only.
- ⑨ Direction switch: Forward & Neutral & Reverse knob switch
- ⑩ Battery meter: For lithium battery or lead-acid battery.
- ⑪ 12v USB charge socket and cigarette lighter port
- ⑫ Storage box (left & right)
- ⑬ Cup holders (Four)
- ⑭ Golf ball holder
- ⑮ Golf tee holder
- ⑯ 9 inch touchscreen (Optional): Please refer to Touchscreen Operation Manual
- ⑰ Speakers (left & right) (Optional) : When installing touchscreen only.

* Touchscreen functions (Plus Models)

This touchscreen is kind of multi-functional device that includes different functions and operations. All detailed operations refer to the “ **Touchscreen Operation Manual**”.



Main Functions

- ✧ Radio
- ✧ Music
- ✧ Movie
- ✧ Bt Phone
- ✧ Bt Music
- ✧ Setting
- ✧ Picture
- ✧ Car info
- ✧ Back-up camera image

Screen Buttons introduction:

- ① **Power Button:** Turn off/on the touchscreen.
- ② **Home Button:** Press this button to go back main interface
- ③ **Upper Button:** Press this button to go back upper level Interface.
- ④ **Volume Up Button:** Press button to increase the volume
- ⑤ **Volume Down Button:** Press button to reduce the volume
- ⑥ **Bluetooth indicating:** Icon will turn blue when connecting to blue-tooth
- ⑦ **USB Drive indicating:** Icon will turn blue when connecting to USB drive disk
- ⑧ **SD card indicating:** Icon will turn blue when connecting to USB drive disk (The function is canceled on this model.)
- ⑨ **Volume Down Button:** Same with ④
- ⑩ **Volume Up Button:** Same with ⑤

* Speedometer

④ LED Indicators

Headlight Indicator 

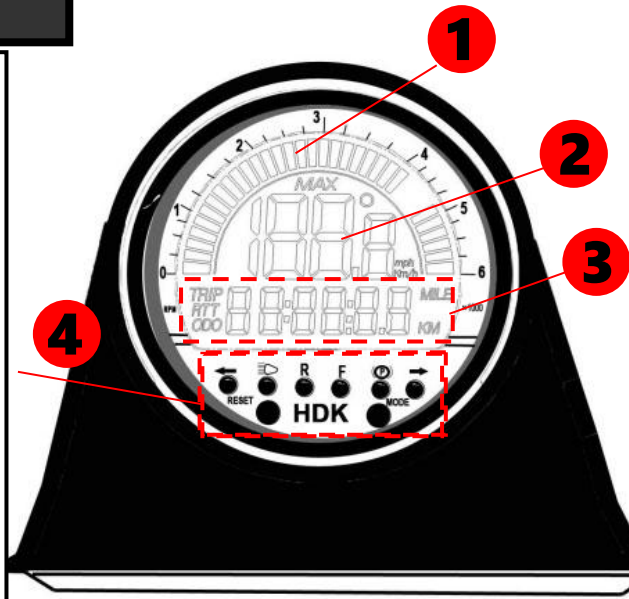
Forward Indicator---F

Reverse Indicator---R

Braking Indicator 

Left Turning Indicator

Right Turning Indicator



① Motor Rotation Speed:

shows on the top of speedometer (for example number times 1000. when the speedometer shows 3 then the motor rotation speed is 3000rpm)

② Vehicle running speed:

Shows current running speed of vehicle, with unit km/h or Mph.

③ TRIP (Single trip of distance):

Records the mileage for a single trip.
ODO: Odometer, Records the mileage for total trips.

⑤ RTT: Total driving time,

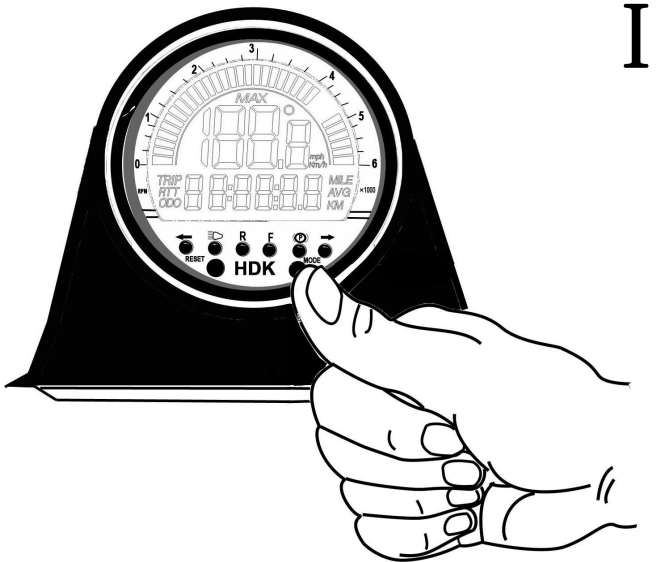
car operates total time.

operation instructions

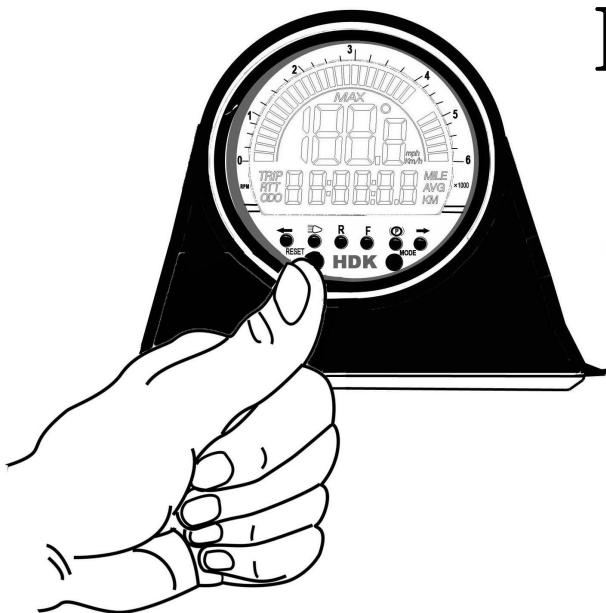
I. To change the display of “TRIP” or “ODO” mode, press “Mode” button twice to change to “TRIP”; Press “Mode” button three time to change to “ODO” .

II. To change the unit from km/h to mph, or from mph to km/h, first press the “Mode” button three time to change to “ODO” , and then press the “RESET” button for 5 seconds, then the unit will be changed.

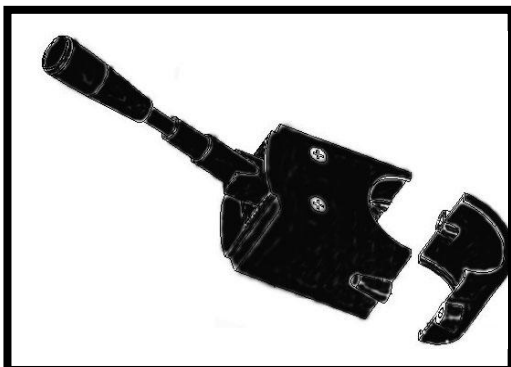
III. To change the display to RTT, total driving time, press “Mode” button one time to change to “RTT”.



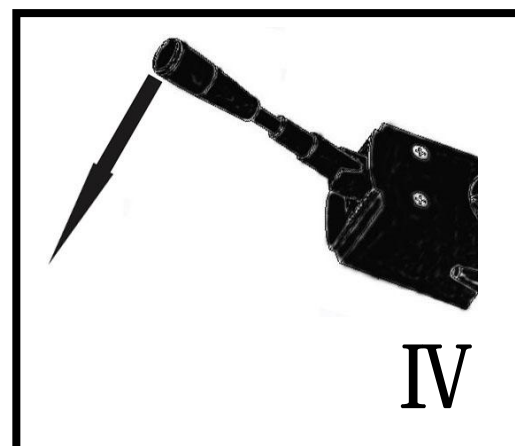
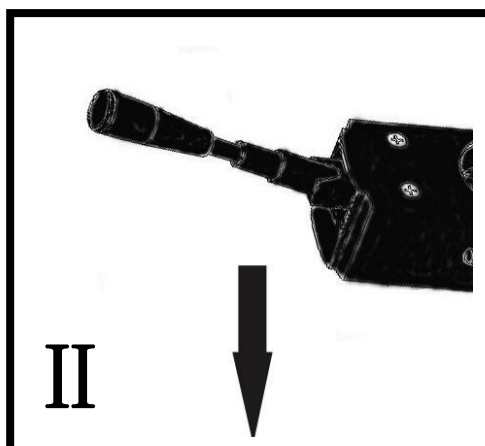
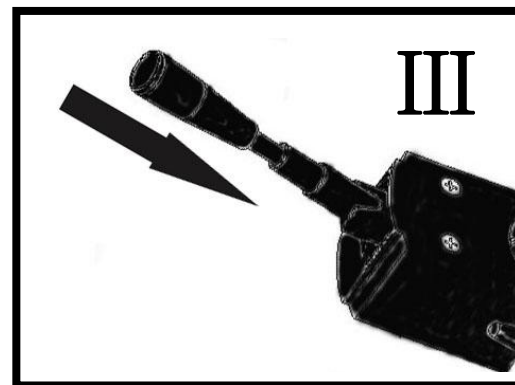
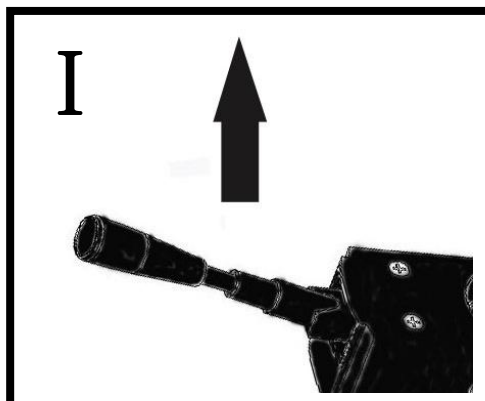
II



* Lights and horn control



Switch assembly



I . Turn on the right turning lights II . Turn on the left turning lights

III. Horn button IV. Turn on the headlights

Grand information of operation

Always use the vehicle in a responsible manner and maintain the vehicle in safe operating condition.

Always read and observe all warnings and operation instruction labels affixed to the vehicle.

Always follow all safety rules established in the area where the vehicle is being operated.

Always reduce speed to compensate for poor terrain or conditions.

Always apply service brake to control speed on steep grades.

Always maintain adequate distance between vehicles.

Always reduce speed in wet areas.

Always use extreme caution when approaching sharp or blind turns.

Always use extreme caution when driving over loose terrain.

Always use extreme caution in areas where pedestrians are present.

* On-board charger

This manual contains important safety and operating instructions for EVOLUTION charger, please read this information before using EVOLUTION charger for lithium-ion battery and lead-acid battery.

EVOLUTION has two models of lithium-ion & lead acid battery charger.



Evolution Lithium-ion Battery Charger Data Table

Charger Model	C4825
Input Voltage range(V)	85V~264V
Rated output voltage(V)	48V
Max output current(A)	25A
Max power (W)	1200W
Charge Time (Hr)	About 4-5Hr for lithium battery pack About 8-10Hr for Trojan battery pack
Battery Model	Lithium battery pack L4860/110/130/165 & Trojan battery T875/T105

⚠ DANGER

DANGER: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, CAREFULLY READ AND FOLLOW THESE IMPORTANT SAFETY AND OPERATING INSTRUCTIONS BEFORE INSTALLING OR OPERATING THE CHARGER.

DANGER: RISK OF ELECTRIC SHOCK. DISCONNECT CHARGER FROM BATTERY AND AC POWER BEFORE SERVICING. TURNING OFF THE CHARGER DOES NOT REDUCE THIS RISK.

DANGER: TO PREVENT ELECTRICAL SHOCK, DO NOT TOUCH EITHER AC OR DC UNINSULATED PARTS. MAKE SURE ALL ELECTRICAL CONNECTORS ARE IN GOOD WORKING CONDITION. DO NOT USE CONNECTORS THAT ARE CRACKED, CORRODED OR DO NOT MAKE ADEQUATE ELECTRICAL CONTACT. USE OF A DAMAGED OR DEFECTIVE CONNECTOR MAY RESULT IN A RISK OF OVERHEATING OR ELECTRIC SHOCK.




⚠ WARNING

WARNING: TO REDUCE THE RISK OF FIRE, INSTALL THIS BATTERY CHARGER ON A SURFACE OF NON-COMBUSTIBLE MATERIAL SUCH AS BRICK, CONCRETE, OR METAL.

* On-board charger operation instructions

➤ Charger LED Display



LED Light	Indication
	Red LED light solids on Charging
	Indicates when a charge cycle completes successfully
	Refer to the Troubleshooting table

➤ Troubleshooting Instruction


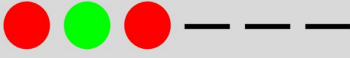

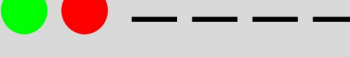
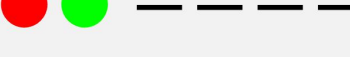


If a fault occurs, count the number of red flashes between pauses and refer to the table below.



--RED



--GREEN

Flashes ("—" means pause 1s)	Cause	Solution
	No load	Check if these happen:the connection of battery and charger is loose, the battery defective, or the battery voltage is too low.
	Over voltage or over current	If the error opens again after restart ,return it to factory repair.
	The ambient temperature is too high or too low	Please check if the ambient temperature is too high and if ventilation is good and the position of battery temperature sensor.
	Charger overheating	Please check whether ambient temperature is too high and if ventilation is good.
	Output Under- Voltage	Please return it to the factory. Replace new charger
	Input AC abnormality	Please check the input voltage and the plug poor contact.
	Anyone of the above-mentioned faults repeats five times, then it appears.	Re-up electricity, match the indicator state to the above-mentioned faults then get the corresponding solution.


DANGEROUS


ONLY PROFESSIONAL PERSON ARE ALLOWED TO CONDUCT THE ADJUSTING OR REPAIRS ON CHARGER . ANYONE WHO HAS NO EXPERIENCE ON ELECTRONIC COMPONENTS MAINTENANCE ARE NOT ALLOWED TO OPERATE ON THE CHARGER . UNREQUIRED OPERATIONS ON THE CHARGER MAY CAUSE ELECTRIC SHOCK , MAY LEAD TO DEATH .


WARNING

DO NOT OPEN UP THE CHARGER . ANY ATTEMPTIONS TRY TO REPAIR DEFECT CHARGER SHOULD UNDER THE GUIDANCE OF DEALER OR MANUFACTURER'S TECHNICIAN .

CAUTION

 USE THE CHARGER ONLY WITH AN ALGORITHM SELECTED THAT IS APPROPRIATE TO THE SPECIFIC BATTERY TYPE .OTHER USEAGE MAY CAUSE PERSONAL INJURY AND DAMAGE..LEAD ACID BATTERIES MAY GENERATE EXPLOSIVE HYDROGEN GAS DURING NORMAL OPERATION.KEEP SPARKS FLAMES, AND SMOKING MATERIALS AWAY BATTERIES.

 PROVIDE ADEQUATE VENTLIATION DURING CHARGING. NEVER CHARGE A FROZEN BATTERY .BATTERIES' CAPS SHOULD BE REMOVED WHILE CHARGING .

 RISK OF THE ELECTRIC SHOCK. CONNECT CHARGER POWER CORD TO AN OUTLET THAT HAS BEEN PROPERLY INSTALLED AND GROUNDED IN ACCORDANCE WITH ALL LOCAL CODES AND ORDINANCES.A GROUND OUTLET IS REQUIRED TO REDUCE RISKOF THE ELECTRIC SHOCK.. DO NOT USE GROUND ADAPTERS OR MODIFY PLUG. DO NOT TOUCH UNINSULATED PORTION OF THE OUTPUT CONNECTOR OR UNINSULATED BATTERY TERIMALS

 CHILDREN SHOULD BE SUPERVISED TO ENSURE THAT THEY DO NOT PLAY WITH THE APPLIANCE

NOTES

EVOLUTION on-board charger is specially designed for EVOLUTION vehicles . The charger's working voltage range from 85V~264V ,working frequency range from 45HZ ~65HZ . Customers from all over the world can use EVOLUTION on-board without any changes .

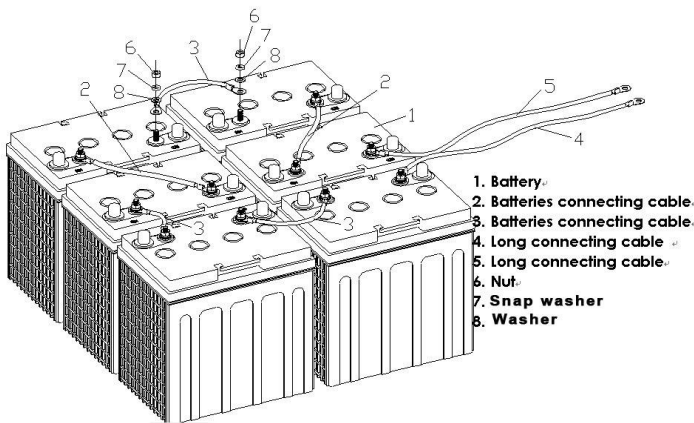
EVOLUTION on-board charger can be operated in the temperature $-30^{\circ}\text{C}\sim+50^{\circ}\text{C}$ ($-22^{\circ}\text{F}\sim122^{\circ}\text{F}$) ,which allows EVOLUTION on-board charger to be used in most circumstances .

* EVOLUTION vehicle batteries connection

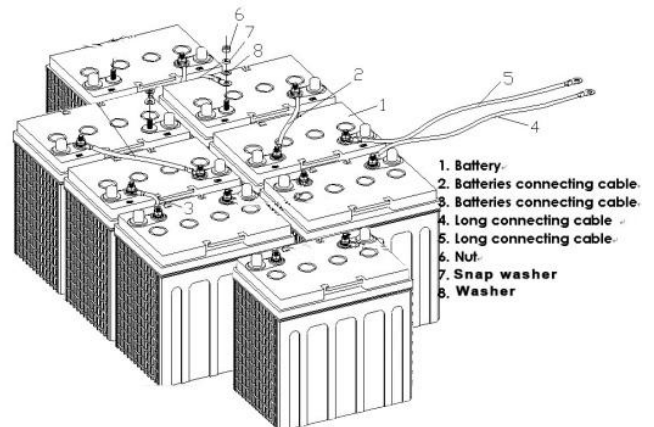
Batteries loaded on EVOLUTION vehicles ,according to different configurations, customers who purchase EVOLUTION vehicles can have two different batteries options: Trojan T875 (8V)/T105(6V), and EVOLUTION lithium battery, which has the four models normally: L4860, L48110, L48130, L48165.

I. Lead acid battery (Trojan)

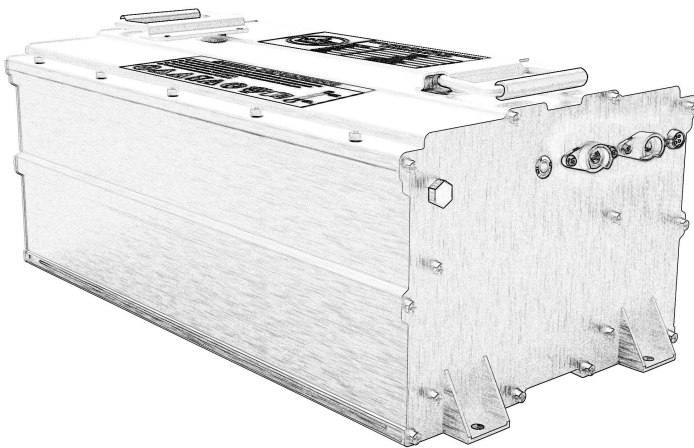
Trojan T875 x 6pc



Trojan T105 x 8pc

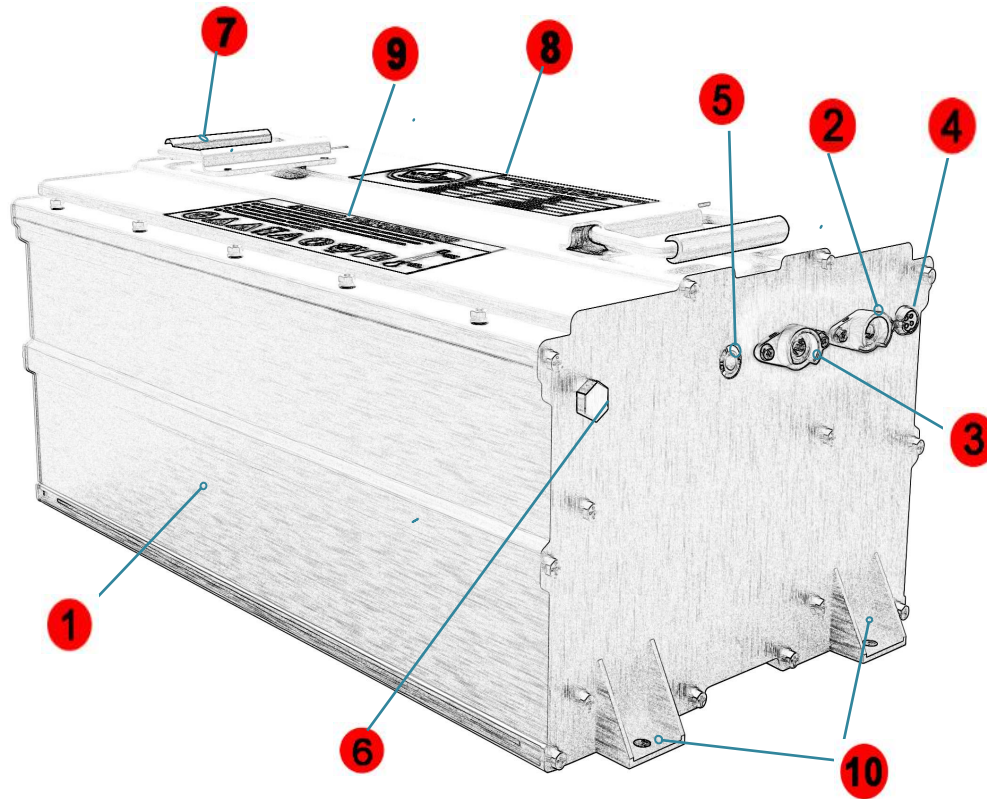


II. EVOLUTION lithium battery



MODEL	VOLTAGE (V)	CAPACITY (AH)
L4860	48V	60Ah
L48110	48V	110Ah
L48130	48V	130Ah
L48165	48V	165Ah

III. Lithium battery illustration



1. LiFePO4 Lithium-ion Batteries Pack with Aluminum Alloy Casing.
2. B+ : Battery Positive Terminal
3. B - : Battery Negative Terminal
4. RS485: Connector Port for Lithium Battery meter.
5. SW: Inspection Green Light & Button for alive BMS
6. Vent Valve for Lithium-ion Battery Pack
7. Lifting Handles for Lithium-ion Battery
8. Nameplate for Lithium-ion Battery
9. Battery Warning Label
10. Installation Base Bracket

IV. Battery charging

Charging should be performed when ambient temperatures are between 32°F and 110°F (0°C and 45°C).

The battery pack should be charged or topped off after every use.

Charging steps:

- Turn the key to the OFF position and remove it.
- Inspect the charger cord for cracks, frayed wires or loose connections, if damaged replace it.
- Inspect the vehicle charger receptacle and charger plug for dirt, debris or damage. Clean if necessary and replace immediately if damage is found.
- Connect the charger to a wall receptacle. Do not use a multi-plug adapter or power strip. Do not connect anything else to the same receptacle.
- When the battery pack is finished charging, disconnect the charger cord from the vehicle. If disconnecting before the charge cycle is complete, it is recommended that the charger be disconnected from the wall receptacle first, then unplug the charger from the vehicle receptacle.

⚠ CAUTION

i .the exterior of the battery ,the connection wires and bolts should be kept clean and dry .If there is electrolyte outside the battery, please clean with dry cotton yarn firstly,then wash with water and finally wipe up .(while cleaning ,do not allow any cleaning solution ,or water to get inside the battery, to avoid leakage and increasing self-discharge)

ii . The connection of the battery should always be kept in good condition .please check if any battery cable terminal or nut has become loose periodically in order to prevent any sparkle or damage to terminals .

iii.Do not place any object on the battery and do not connect the positive pole to the negative pole .this may cause a short circuit ,damage to the battery or injury to your body .

iv.The battery should be recharged fully when not in use . any delay on the re-charging will cause negative effect on the battery .

v The evaporation and electrolyzing of the water will cause the density of electrolyte of the battery increased and the liquid surface decrease ,especially in hot water.therefore,check the distilled water or the attenuated sulfuric acid for lead-acid battery with density of 1.40 to adjust the electrolyte to meet the density of the 1.28,the surface should be flat with highest level then continue to charge 0.5-1 hour in order to make the internal uniform .

vi.Any impurities are not allowed to enter the battery. Keep the apparatus clean for adding water to avoid the impurities to be fallen into the battery.

vii.When driving , the driver shall be always be aware of the drop level the battery power from the batteries' capacity indicator .the driver shall estimate the distance needed to be taken,and recharge the battery at a proper time in case that the car can not get back to the recharging station in time for recharging .

viii. If the golf car is going to be kept unused for a period of time ,the battery shall be fully charged before put away. After that ,the battery fully recharged every month ,until the charger turn off automatically

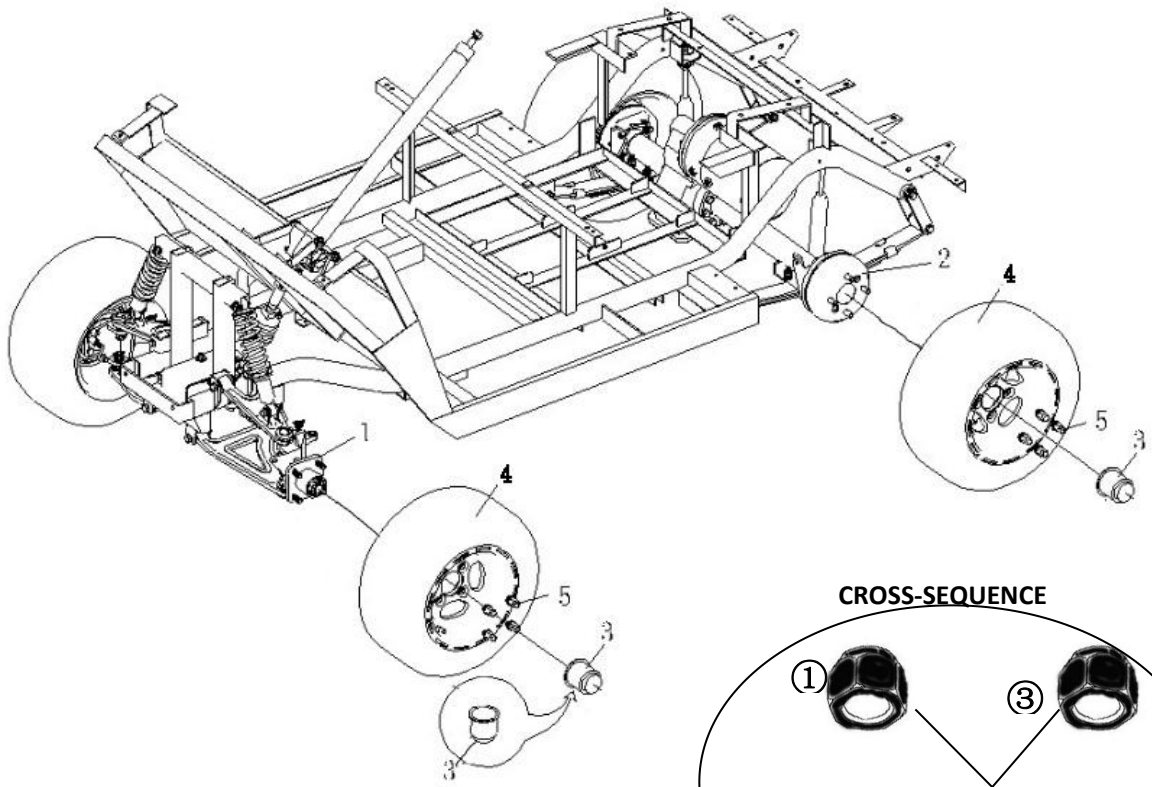
ix.During charging ,the car shall be parked in a well-ventilated area with the fill caps open. Keep car far away from any frame and sparks and avoid any explosion or fire that could cause physical injury or damage to the property. x .once charged the cap should be kept tightly covered.

* Vehicle Tires

⚠ Worn, improperly inflated, improper sized, or incorrectly installed tires will affect vehicle handling and could cause an accident resulting in server injury or death.

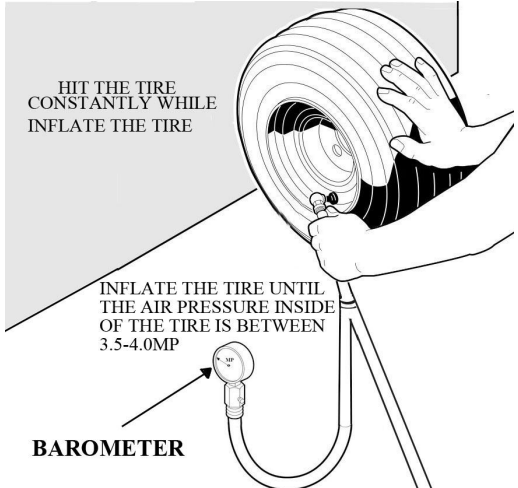
Check the lug nuts for tightness at the intervals that the manufacturer requests, EVOLUTION advises the end user check the lug nuts of tire for tightness or missing daily for safety inspection.

- ① Front hub
- ② brake drum
- ③ Dust cover
- ④ Tire
- ⑤ Lug nut



⚠ While fasten the wheel nuts , one should always keep fasten it

⚠ Tubeless tire cautions



1. Clean both tire beads to remove dirt or other object.
2. Where the tire beads seat, clean the wheel rim with a wire brush
3. Apply plenty of tire mounting lubricant(soap and solution)to both beads and rim flanges
4. Install the tire on the rim from the valve stem side .if thre is no tire machine available ,use a rubber mallet and tire iron
5. Remove the valve core and position tire so that both beads are on the rim flange narrow bead seats
6. Quickly remove the air nozzle and install the valve core
7. Adjust the tire ,keep the air pressure between 3.5-4.0MP,immerse the tire into water to make sure there are no leaks

* VEHICLE PERFORMANCE REMODIFICATION

I .Controller adjustment

For attaching different speed performance or regenerative brake effect ; The ramp climbing ability or low speed cruising pattern performance remodification all can be done by change the controller's

CAUTION

ONLY TRAINED PERSON ALL ALLOWED TO REMODIFY CONTROLLER PARAMETERS SETTING . ANY INPROPER SETTING CHANGES MAY CAUSE SEVERE DAMAGES TO THE VEHICLE OR JEOPARDISE PASSENGERS SAFTY

II .Motor and rear axle

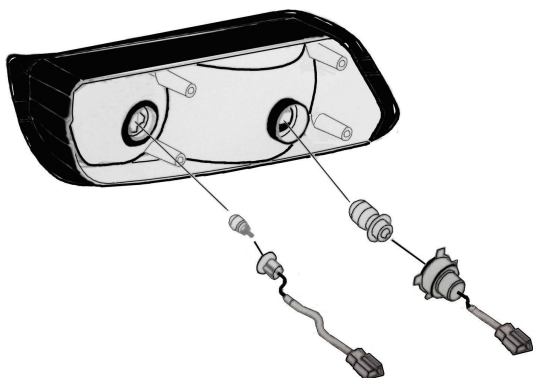
The motor and rear axle's performance are fixed when the customer buy it from dealer . The rated power and torque capability are limited due to the vehicle's configuration.

For attaching different torque and power performances , customer can choose different motors or

CAUTION

ONLY PERSONS WHO HAVE REAR AXLE AND MOTOR MAINTENANCES ARE ALLOWED TO CONDUCT MODIFICATIONS .

III.Headlights' bulbs

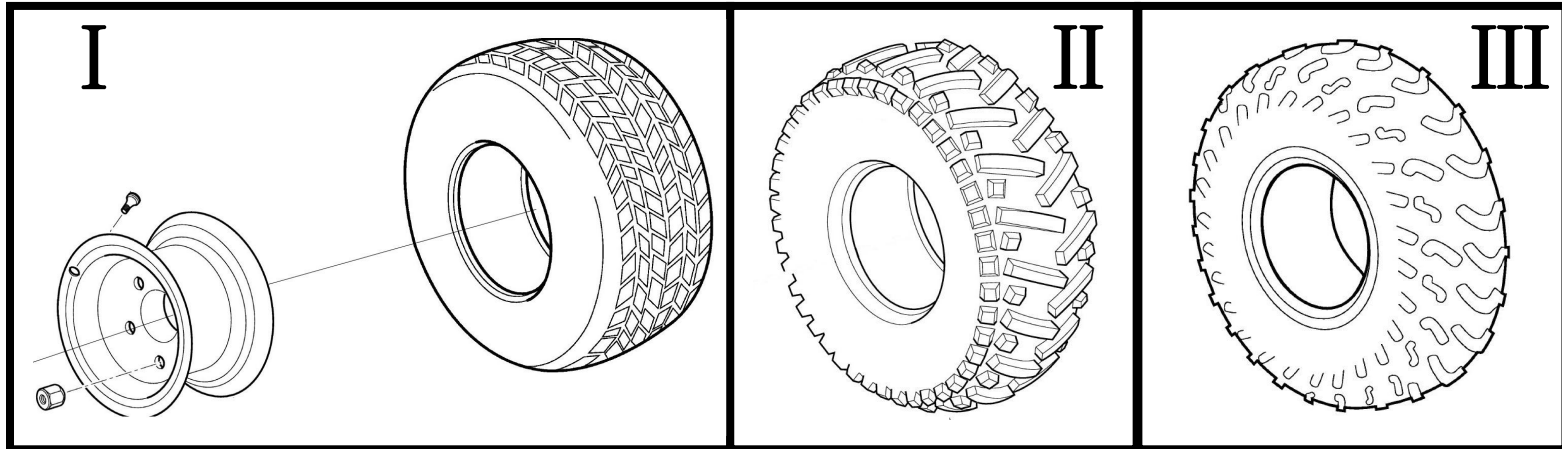


For change the luminance of headlights , customer can choose different rated power bulbs as options .

The maximum rated power for headlights bulbs are 60 W.

The maximum rated power for turning light bulbs are 15W.

III. Vehicle tires



I. Turf tire

II. Off road tire

III. Extra traction

1. Clean both tire beads to remove dirt or other object.

2. Where the tire beads seat, clean the wheel rim with a wire brush

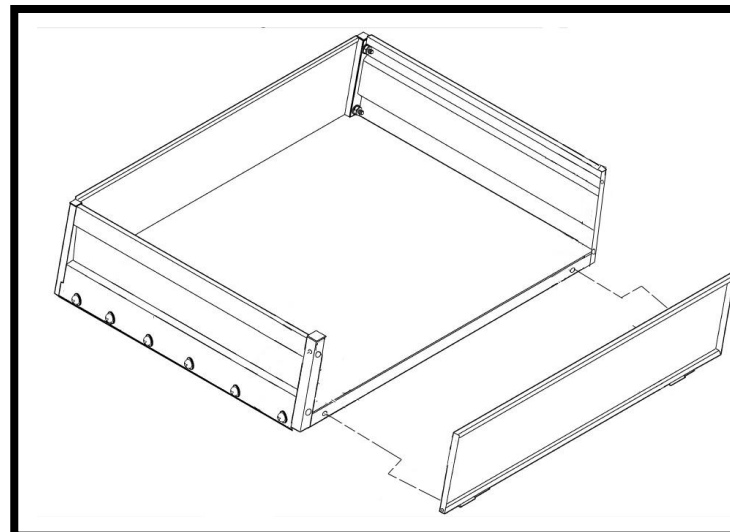
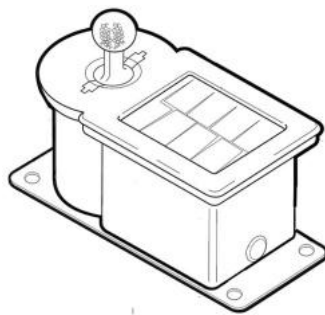
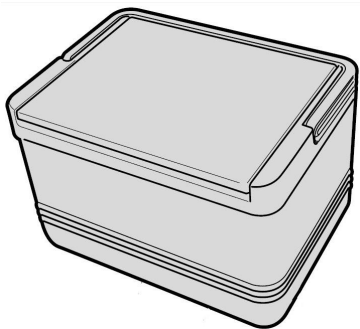
3. Apply plenty of tire mounting lubricant (soap and solution) to both beads and rim flanges

4. Install the tire on the rim from the valve stem side. If there is no tire machine available, use a rubber mallet and tire iron

5. Remove the valve core and position tire so that both beads are on the rim flange narrow bead seats

6. Quickly remove the air nozzle and install the valve core

III. Golf cart accessories option

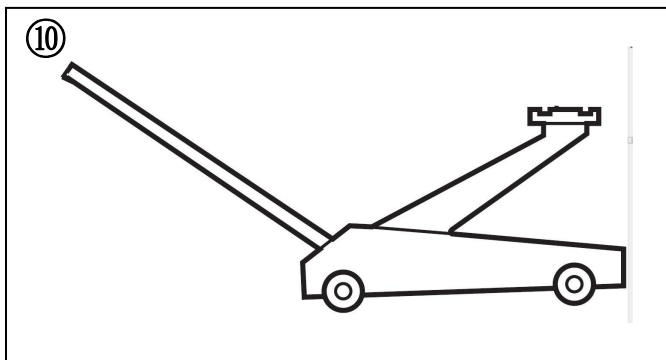
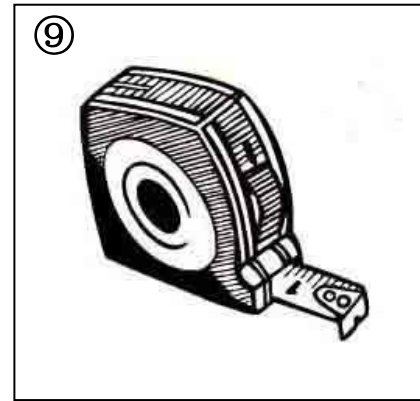
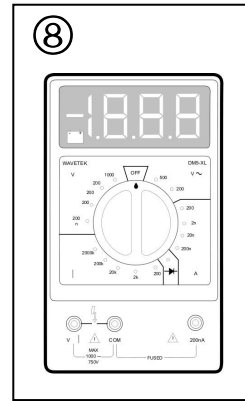
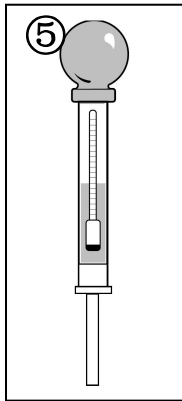
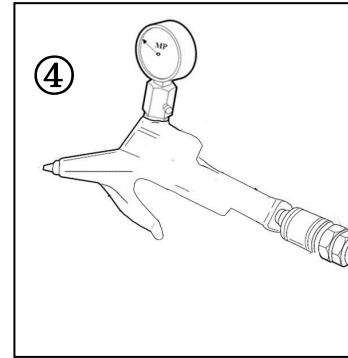
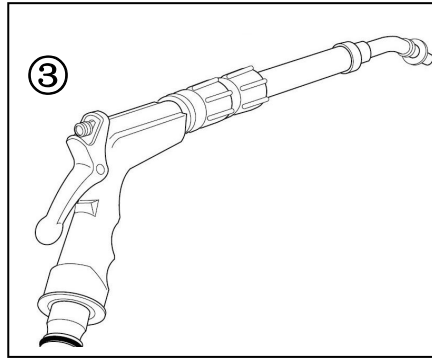
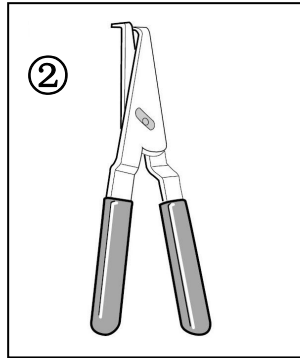
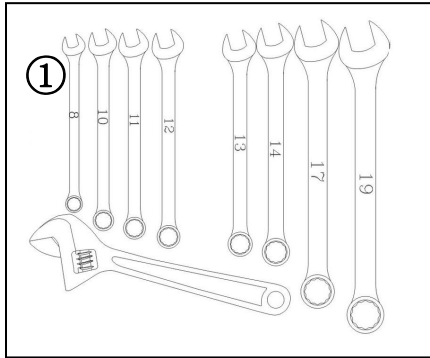


IV. Cool box

V. Golf ball washer

VI. Aluminum box

I .Tools



- ① Wrenches ② Retaining ring pliers ③ Battery fluid injection tool faucet
- ④ Tire air inflating tool ⑤ Hydrometer ⑥ Lubricant can
- ⑦ Charger's calibration box ⑧ multimeter ⑨ Tape measure ⑩ Jack

✖NOTES

All the maintenance tools are available from tool market , also customer can purchase all the



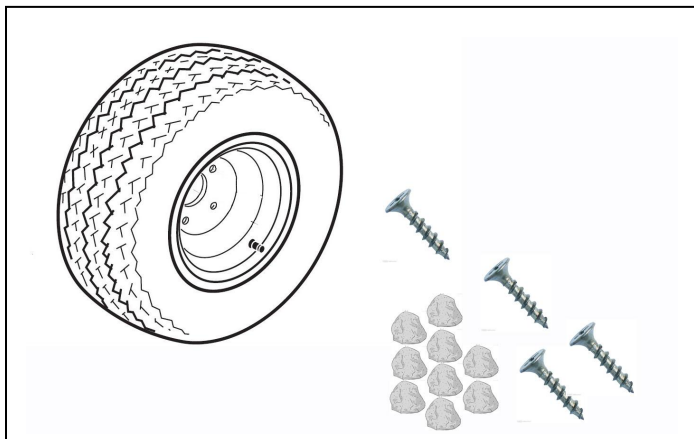
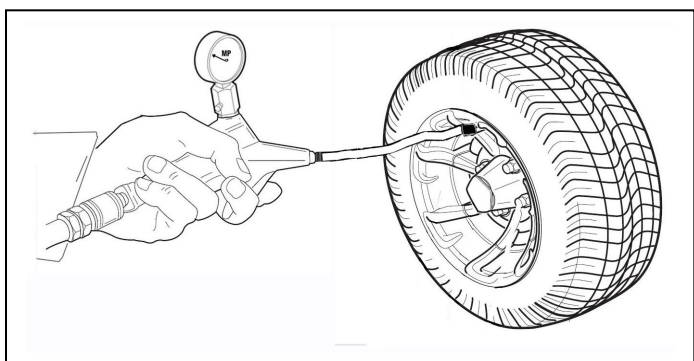
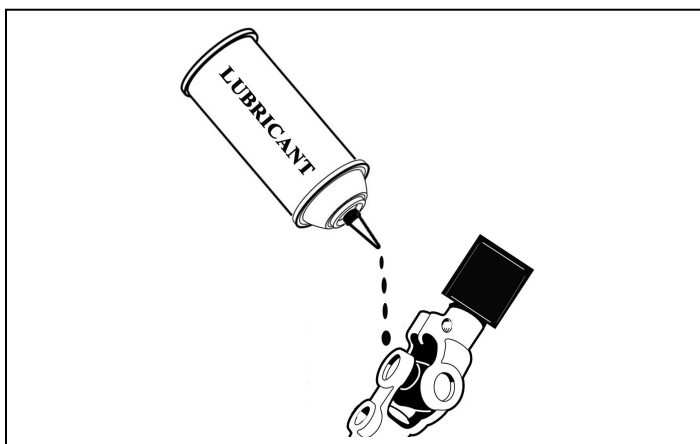
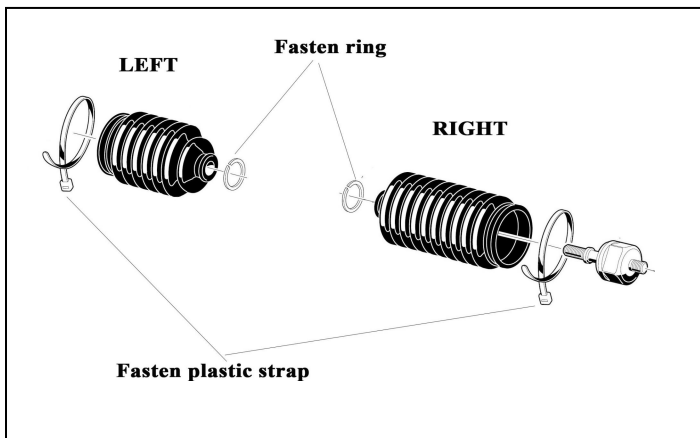
II. Vehicle maintenance

CAUTION

Always:

- Maintain the vehicle in accordance with the manufacturer's periodic service schedule.
 - Ensure that repairs are performed by those that are trained and qualified to do so.
 - Follow the manufacturer's maintenance procedures for the vehicle. Be sure to disable the vehicle before performing any maintenance. Disabling includes removing the key from the key switch and removal of a battery wire.
 - Insulate any tools used within the battery area in order to prevent sparks or battery explosion caused by shorting the battery terminals or associated wiring. Remove the batteries or cover exposed terminals with an insulating material.
 - Check the polarity of each battery terminal and be sure to rewire the batteries correctly.
 - Use specified replacement parts. Never use replacement parts of lesser quality.
 - Use recommended tools.
 - Determine that tools and procedures not specifically recommended by the manufacturer will not compromise the safety of personnel nor jeopardize the safe operation of the vehicle.
 - Support the vehicle using wheel chocks and jack stands. Never get under a vehicle that is supported by a jack. Lift the vehicle in accordance with the manufacturer's instructions.
 - Maintain the vehicle in an area away from exposed flame or persons who are smoking.
 - Be aware that a vehicle that is not performing as designed is a potential hazard and must not be operated.
 - Test drive the vehicle after any repairs or maintenance. All tests must be conducted in a safe area that is free of both vehicular and pedestrian traffic.
 - Replace damaged or missing warning, caution or information labels.
 - Keep complete records of the maintenance history of the vehicle.
- The manufacturer cannot anticipate all situations, therefore people attempting to maintain or repair the vehicle must have the skill and experience to recognize and protect themselves from potential situations that could result in severe personal injury or death and damage to the vehicle. Use extreme caution and, if unsure as to the potential for injury, refer the repair or maintenance to a qualified mechanic.

i .Chassis maintenance



Check the dust-proof caps on steering gear box ,the caps are supposed to be tight on the two terminal ends .

Loose caps will let water and dust into the gear box ,cause the gears rusting .

Add lubricant to mechanical joint parts , the vehicle should be kept in good turning and operating functions . To attach that one should add lubricant to needed parts every one month .

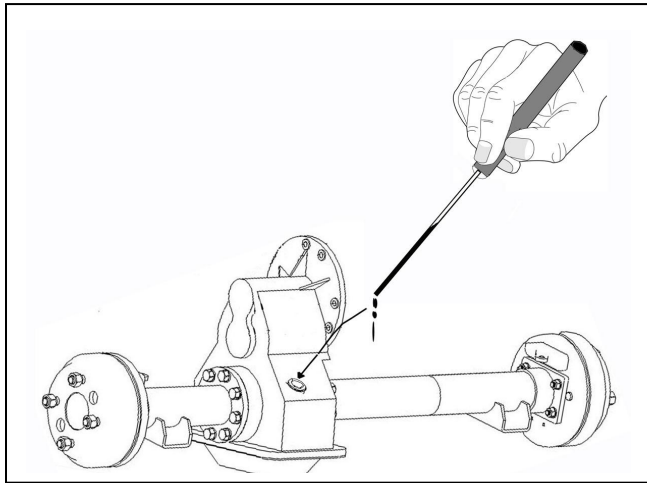
Check the tires every time use the vehicle . the tires should be inflated with enough air . The air pressure should with normal level .

Check the tire chapter for more specific information of tire inflation .

WARNING

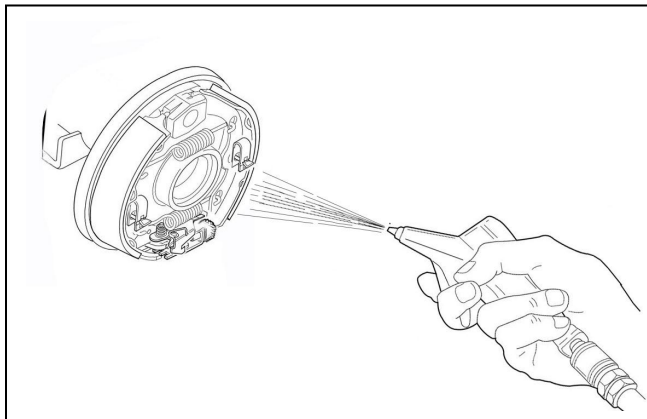
FLAT TIRE MAY CAUSE UNSTABLE STEERING FUNCTION WHILE DRIVING .

Check the tires every time use the vehicle , remove embedded objects or metal items away from tire surface .If the tire have embedded objects on surface ,it will lead to excessive noises from tire while driving or tire internal air leaking .



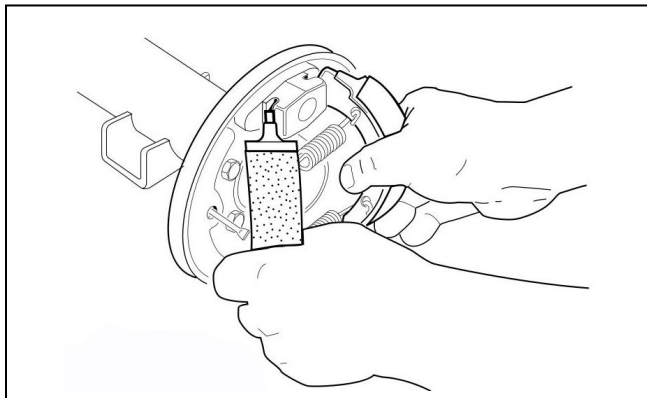
Check the lubricant capacity of rear axle .

Low lubricant capacity may cause damages to rear axle cams or excessive noises .



Clear the brake shoes surface , all the brake shoes shred dust should be cleaned out in periodic time . Shred dust may cause mechanical malfunctions of brake .

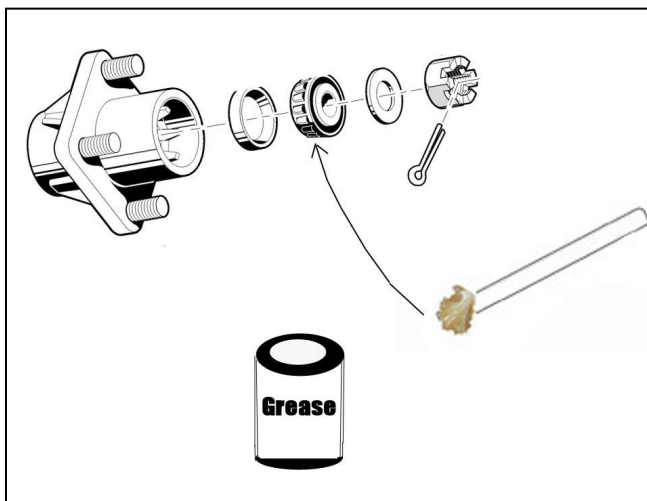
Use a compressed air to blow the dust out .



Check the brake shoes worn out conditions , if it is extremely worn out(1/3 left) ,then the brake shoes need to be replaced with a new one

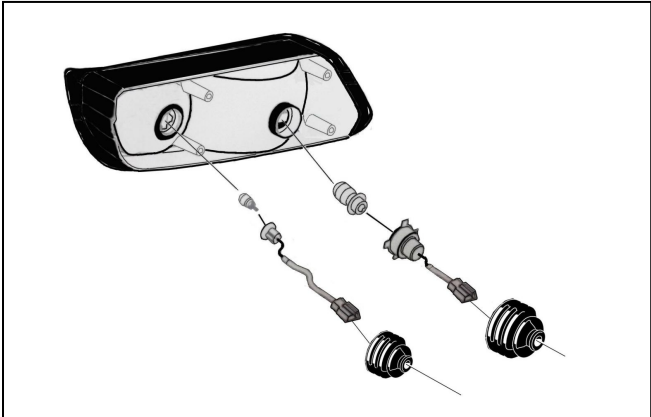
 **DANGEROUS**

DO NOT DRIVE THE VEHICLE WITH POOR BRAKE .



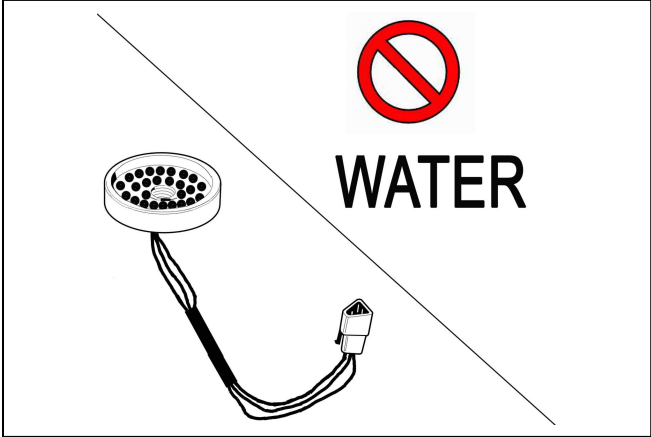
Check the bearings inside of front hub , the hubs should have enough lubricated grease .

ii .Electric components maintenance



Check the headlight back rubber caps , the caps should always be kept on tightly . otherwise water or dust may enter into the headlight chambers .

Cause halogen bulbs burn down easily and vague vision of headlights .



Keep LED rear lights waterproof , keep the cover lid tight ,keep dust and water out of LED light assembly .

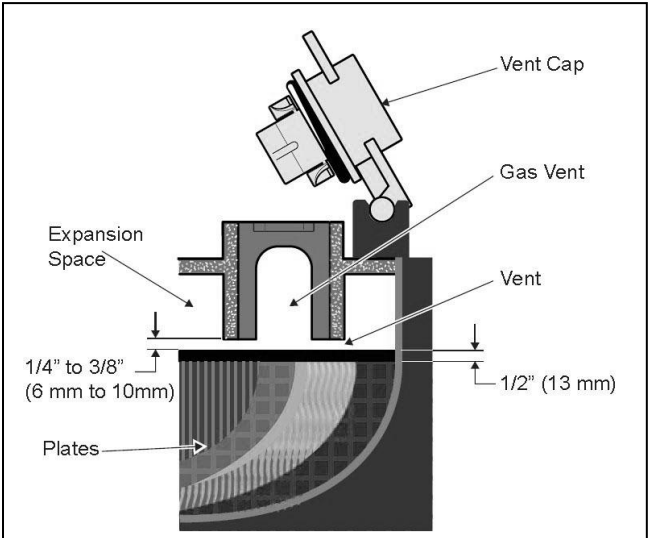
Dense humidity or water may cause LED diodes to burn down .

CAUTION

DO NOT LOAD LED LIGHTS WITH HIGH VOLTAGES .



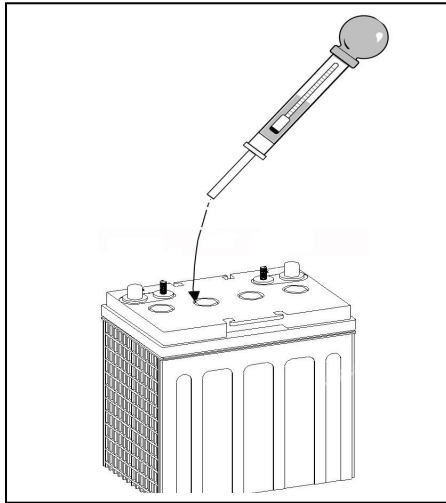
Keep the controller from water , water may cause circuitry short circuit . If water enter into controller , the vehicle may run unintentionally after turn on the power switch.



Check fluid level before and after charging , electrolyte should be at least 1/2"(13mm)above the plates and 1/4" tp3/8"(6 to 10mm) below bottom of the vent .

WARNING

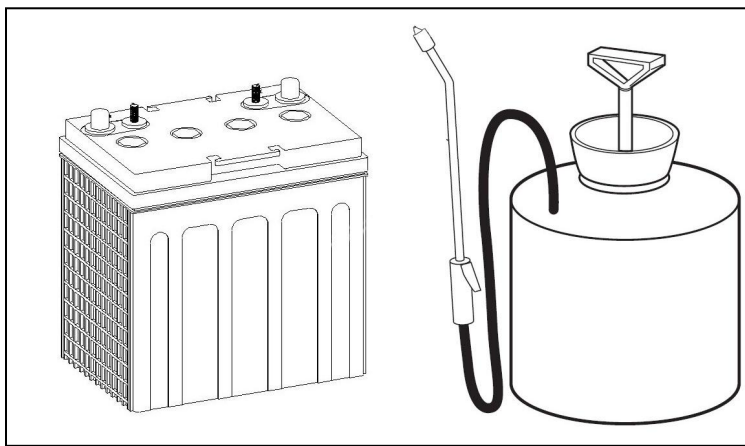
NEVER CHARGE BATTEY WITH LITTLE ELECTROLYTE , IT MAY CAUSE OVERHEATED OR EVEN EXPLOSION



Use a hydrometer to check the specific gravity of the battery fluid in each cell .

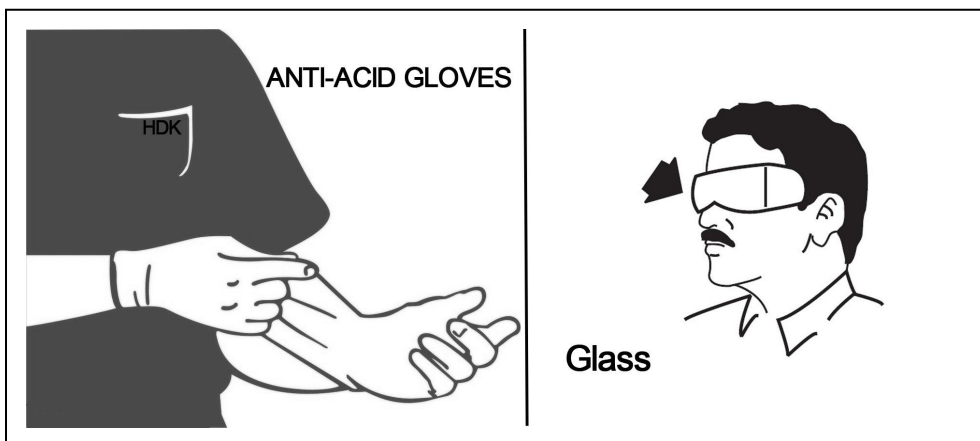
Fluid density ranges from different values in different period of battery using

Maintenance period :One time per 10 months

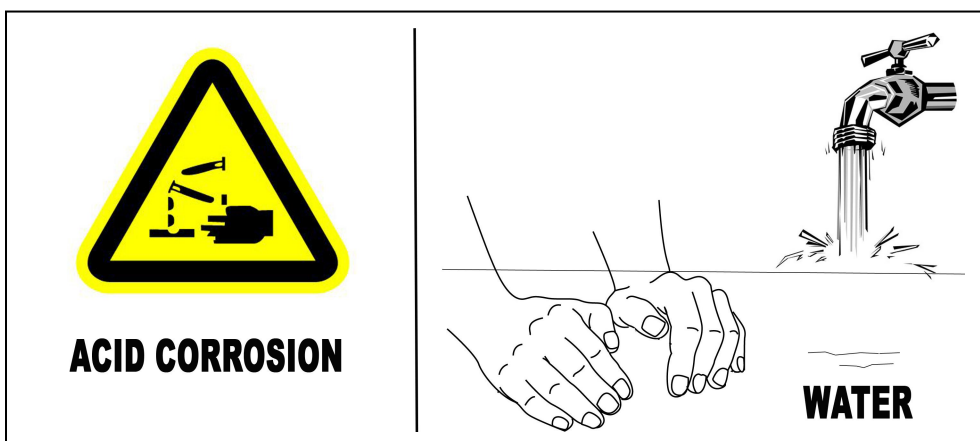


Use a injection faucet to inject distilled water into the battery when the battery don't have enough capacity of battery fluid .

CAUTION



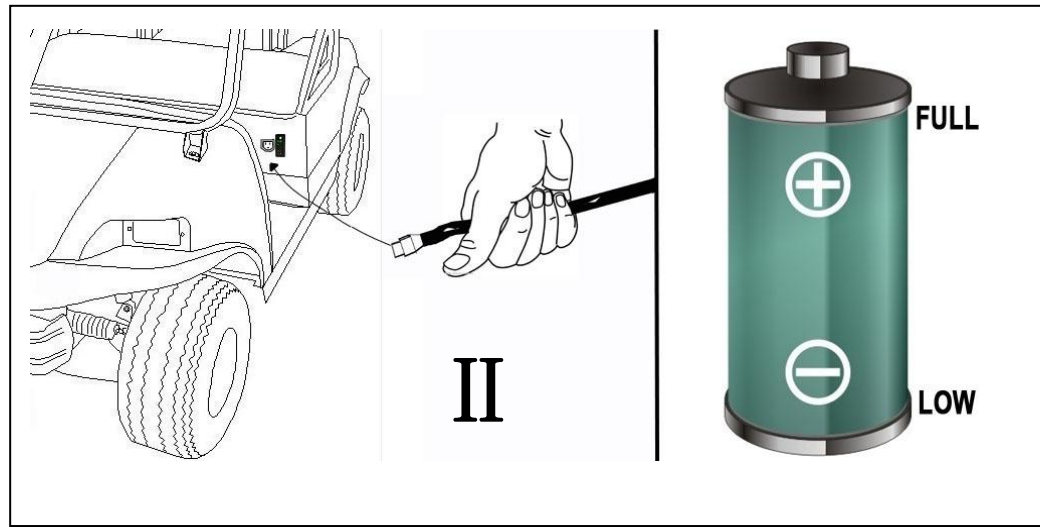
Always remember to take precautions while conduct any operations on batteries or handle battery .



Wear gloves to protect person form acid corrosion .

Wear glass to protect person from acid splash .

If the vehicle is put away for storage for long time. certain things need to be done to prevent vehicle from malfunctions or other lose. The recommended extended storage temperature range is from 14° F and 95° F (-10° C and 35° C)



I . Keep vehicle in dry and ventilated place , keep it from rain

II .Remember to charge the batteries fully before put away vehicle

⌘NOTES


INCORRECT STORAGE CAN CAUSE BATTERY DAMAGE, PERMANENT LOSS OF BATTERY CAPACITY, OR CAUSE THE BATTERY TO BE UNSERVICEABLE. A FULLY DISCHARGED BATTERY PUT IN STORAGE WILL MAKE THE BATTERY PERMANENTLY UNSERVICEABLE. PUT THE BATTERY ON CHARGE DURING EXTENDED STORAGE. DO NOT EXCEED THE STORAGE TEMPERATURE LIMITS. DO NOT PUT A FULLY DISCHARGED BATTERY IN STORAGE. INCORRECT STORAGE WILL VOID THE BATTERY WARRANTY.

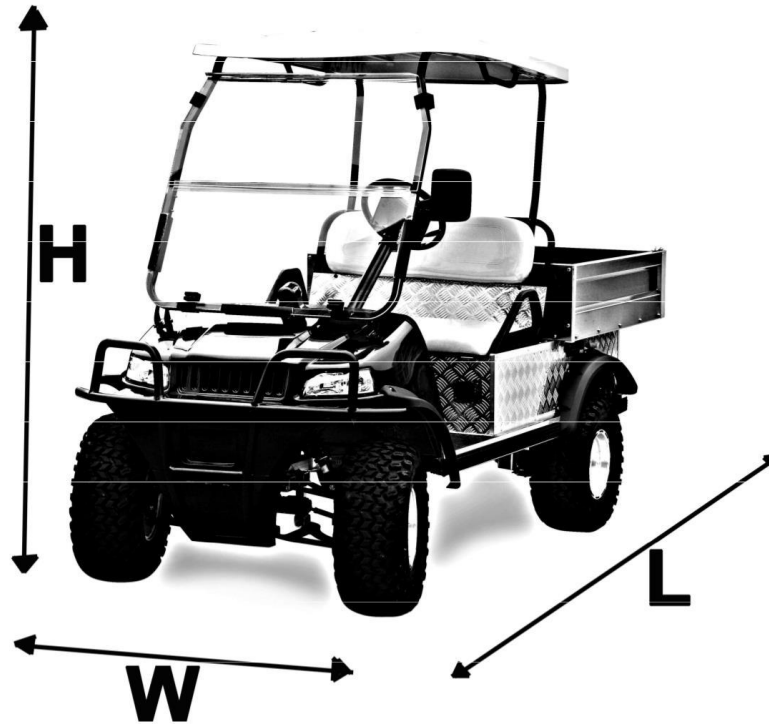
Long Term Storage Tips & Operation

1. Turn off all electronic accessories.
2. Set the Forward / Neutral / Reverse control (FNR) to N.
3. If equipped, Set the Run/Tow switch to Tow. (Run/Tow switch is only equipped on DC cart, AC cart has no Run/Tow switch)
4. Turn the key to OFF. Remove the key from the cart.
5. Put chocks against the wheels.
6. Remove all cargo and personal items.
7. Keep the vehicle in a cool and dry area.
8. Clean the vehicle.
9. Connect the battery charger.

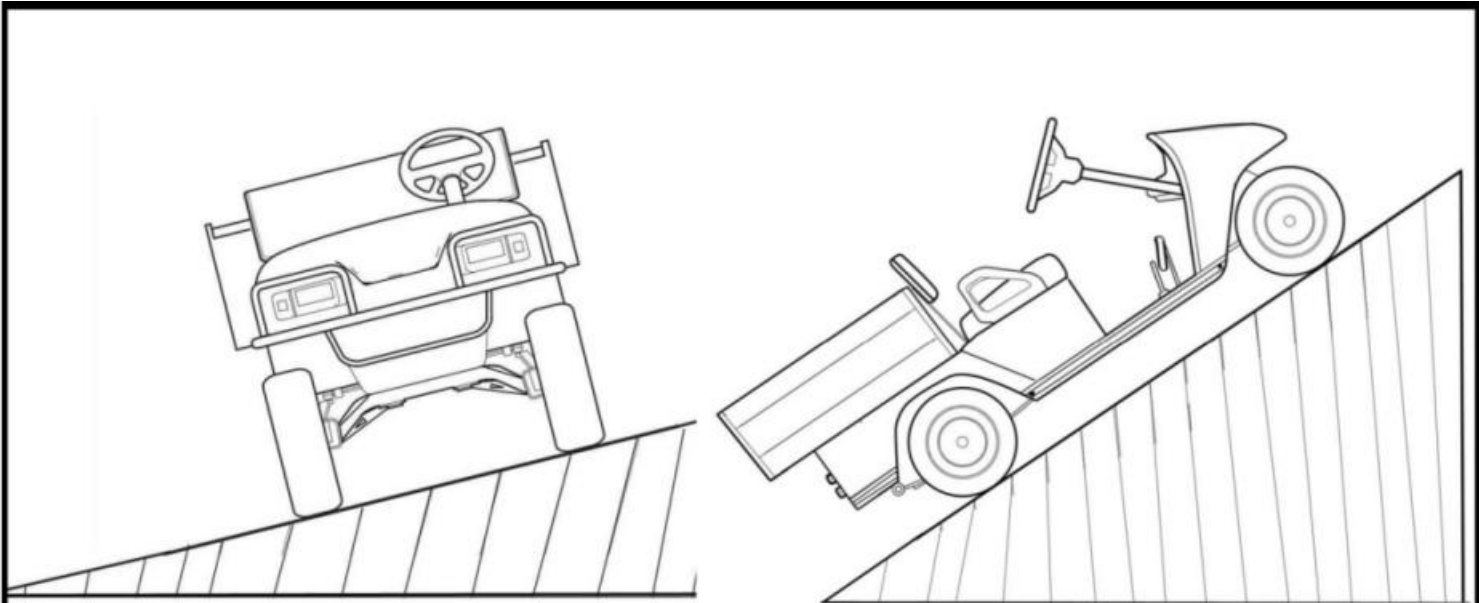
Return to Service After Long Term Storage

1. Unplug the charger cord, wait 15 min at least, then re-plug.
2. Fully charge the battery.
3. Adjust the pressure in each tire to the recommended tire pressure.
4. Have a trained technician lubricate the vehicle.
5. Do a daily Pre-operation safety checklist.
6. Do a vehicle performance inspection.

 CAUTION Improper storage may damage, destroy or cause permanent loss of battery capacity. Do not exceed storage time or temperature limits. Batteries must be charged to the correct level before storage.

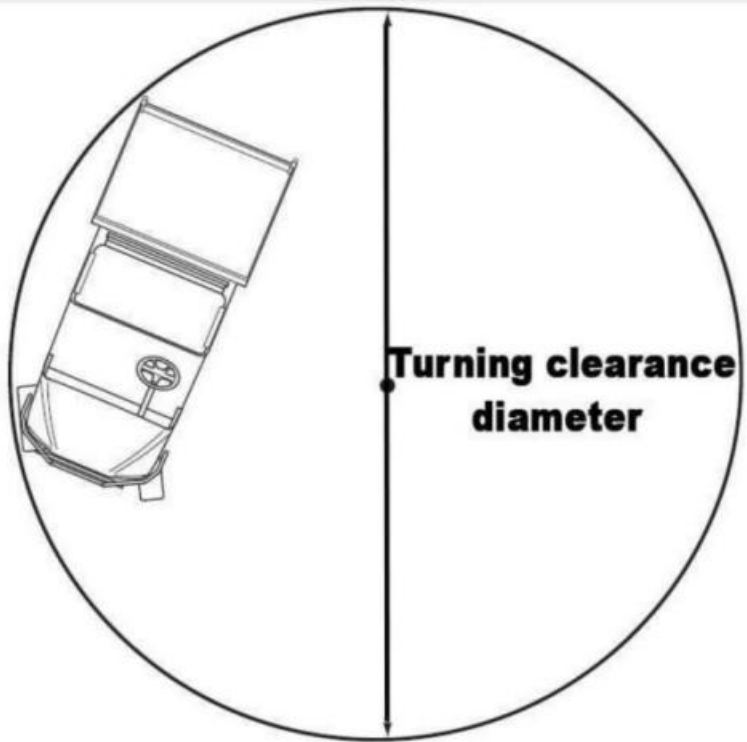


Item	Specification	
	TURFMAN 700	TURFMAN 500
Passenger capacities	2 person	2 person
Dimension (mm) (L×W×H)	3000×1400×2000	3300×1400×1830
Maximum speed	20-30KM/h	20-30KM/h
Power source	Lithium battery or Trojan battery	Lithium battery or Trojan battery
Controller	Curtis AC Controller 1232SER 400AMP	Curtis AC Controller 1232SER 400AMP
Maximum grade ability	20%-30%	20%-30%
Minimum turning diameter (m)	3.6m	3.6m
Brake distance	3.5m	3.5m
Brake System	Mechanical	Mechanical
Cargo bed capacity	450kg (992lbs)	400kg(882lbs)



Max slope accessing angle :15%

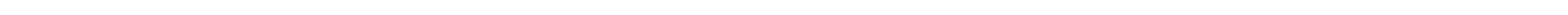
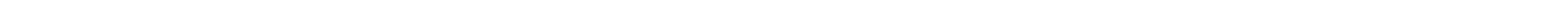
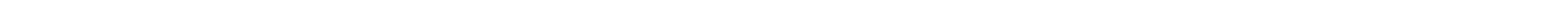
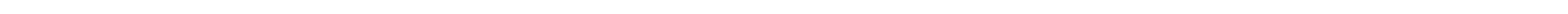
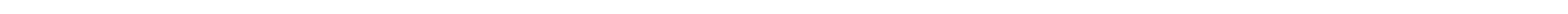
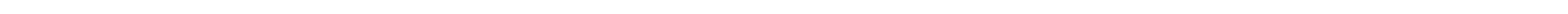
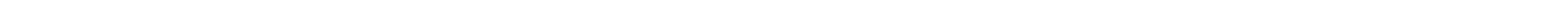
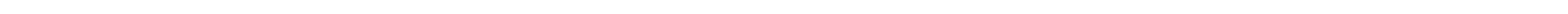
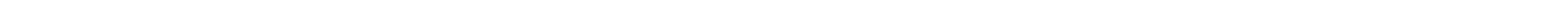
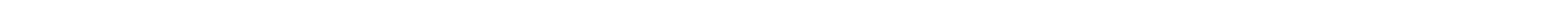
Max ramp angle :30%



Turning clearance diameter

Turning clearance diameter: 7.2m

NOTE



NOTE



A series of approximately 25 horizontal black lines spaced evenly down the page, creating a ruled area for writing.

NOTE





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