WEIZE

♦38.4V105Ah♦

♦51.2V105Ah♦

Golf Cart Battery Instructions Manual

CONTENTS

01 Safety Precautions

It is of the utmost importance to read the user manual in its entirety prior to installing or utilising the battery. Failure to adhere to any of the instructions or warnings set forth in this document may result in electrical shock, serious injury, death, or may damage the battery and the entire system.

The fastest time for the battery to be fully charged is 1 hours.

Do not expose cable outside

All battery terminals be disconnected prior to any maintenance procedures

Do not use cleaning solvents to clean the battery

Do not expose the battery to flammable or harsh chemicals or vapors

It is imperative that no part of the battery, including any internal or external components, be painted

Any foreign objects are prohibited from being inserted into any part of the battery

- **Any warranty claims are excluded for direct or indirect damage due to aforementioned items.**

- In the event that the battery is stored for an extended period, it is imperative that they are charged on a regular basis, with a minimum SOC of 30%.

- If any abnormal phenomenon occurs during charging or using,please stop charging and using immediately.

1.1Note Before Installation

- Upon receipt, kindly verify the battery and packing list. In the event that the battery is damaged or spare parts are missing, please contact the dealer.
- Prior to installation, please ensure that the battery is in the turned-off mode.
- Please ensure that the wiring is correct and that the positive and negative terminals are not mixed.
- Please ensure that active cables are connected correctly and that there are no short circuits with the external device. It is not permitted to connect the battery to AC power directly.The embedded BMS in the battery is designed for 38.4V or 51.2V DC,please do not connect battery in series.
- It is prohibited to connect the battery with different type of battery.
- Please ensure the electrical parameters of battery system are compatible to controller and motor.
- Keep the battery away from fire or water.

1.2 During Operation

- In the event that the battery system requires relocation or repair,it is imperative that the power be disconnected first, and that the battery be completely shutdown.It is prohibited to connect the battery with different type of battery.
- It is strictly prohibited to use batteries in conjunction with a faulty or incompatible controller and motor.
- In case of fire, only dry powder fire extinguisher can be used,liquid fire extinguishers are prohibited.
- Please do not open,repair or disassemble the battery.We do not undertake any consequences or related responsibility for violation of safety standards, including those related to the operation of the battery, the design, production or equipment safety standards

2.Specification

NO.	Item	Specification	
01	LiFePO4 Battery	38.4V/105Ah	51.2V/105Ah
02	Charge Voltage	43.8V(3.65V/Cell)	58.4V(3.65V/Cell)
03	Discharge Cut-off Voltage	32.4V(2.7V/Cell)	43.2V(2.7V/Cell)
04	Nominal Voltage	38.4V(3.2V/Cell)	51.2V(3.2V/Cell)
05	Nominal Capacity	105Ah@ 0.5C discharge	105Ah@ 0.5C discharge
06	Energy	4032Wh	5376Wh
07	Max Load / Inverter Power	7680W	10240W
08	Recommend Charge Current	25A	25A
09	Max Continuous Charging Current	105A	105A
10	Max Continuous Discharging Current	200A(Peak 400A 35S)	200A(Peak 400A 35S)
11	Weight	67.2LBS(30.5KG)	82.6LBS(37.5KG)
12	Dimension	522x238x220mm 20.55x9.37x8.66inch	522x268x220mm 20.55x10.55x8.66inch

3.3 Safety Test

NO.	Item	Test Method	Criteria
1	Short CIrcuit	After standard charging, the battery shall be subjected to a short-circuit condition with a wire of resistance 80± 20mΩ , until it has reached a completely discharged state of less than 0.2V and the battery case temperature has returned to ± 10 ° C of ambient temperature.	No fire, no explosion

3.Product Performance

3.1Electrical Characteristics

NO.	Item	Test Method	Criteria
1	38.4V105Ah	After standard charging, discharge the battery at 0.5C to the capacity released by the 30V cut-off voltage.	≥ Nominal capacity
2	51.2V105Ah	After standard charging, discharge the battery at 0.5C to the capacity released by the 40V cut-off voltage.	≥ Nominal capacity

3.2 Mechanical and Environmental Test

NO.	Item	Test Method	Criteria
1	Vibration	After standard charging, fixed the bat -tery to vibration table and subjected to vibration cycling that the frequency is to be varied from 7HZ to 200HZ ,then return to 7HZ, the excursion of the vibration is 0.8mm . The battery shall be vibrated for 3 hours.	No leak, no smoke, no fire, no explosion
2	Drop	After standard charging, the battery is to be dropped from a height of 1 meter onto concrete board, dropped once in the positive and negative directions of three mutually perpendicular X, Y, Z axes	No leak, no smoke, no fire, no explosion
3	Heating	After standard charging, put battery in the baking oven and start to rise the temperature to 130°C, remain for 10minutes at that temperature.	No fire, no explosion

4.Golf Cart Batteries

38.4V105Ah

Basic information

Warranty: 10 Year

Cycle Life: ≥4000 Cycles

Nominal Voltage: 38.4V

Rated Capacity: 105Ah

Energy: 4032Wh

Max. Expansion (Parallel & Series) N/A

Internal Resistance: <40mΩ

Certifications MsDs, UN38.3,CE,FCC,ROHS

BMS 200A

Max. Continuous Output Power 7680W

Max. Continuous Charge Current 105A

Max. Continuous Discharge Current 200A (Peak 400A 35S)

Max. Discharge Current Peak 600A/ 5S

Charge Method: CC/CV

Charge Voltage: 43.8V

Recommend Charge Current: 25A

Operating Temperature Range:

Charge: 0°C to 45°C (32°F to 113°F)

Discharge: -20°C to 60°C (-4°F to 131°F)

Storage: -10°C to 50°C (-14°F to 122°F)

Low temp cut off protection (Charge): 0°C ± 4°C (32°F ± 7.2°F)

Safety Features: BMS, Over Charge/Discharge, Low/High Temp Cut-off, Over Current, Short Circuit

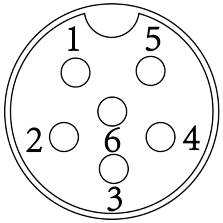
100%Capacity/SOC

0.00A Charge/Discharge Current

1~12 Voltage of each cell

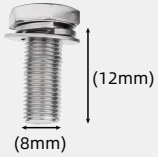
DSG Discharge State

CHG charge State



Item	PIN Definition
Pin1	485A
Pin2	485B
Pin3	Battery+
Pin4	Battery-
Pin5	Empty
Pin6	Empty

Terminal



51.2V105Ah

Basic information

Warranty: 10 Year

Cycle Life: ≥4000 Cycles

Nominal Voltage: 51.2V

Rated Capacity: 105Ah

Energy: 5376Wh

Internal Resistance: <40mΩ

Certifications MsDs, UN38.3,CE,FCC,ROHS

BMS 200A

Max. Continuous Output Power 10240W

Max. Continuous Charge Current 105A

Max. Continuous Discharge Current 200A (Peak 400A 35S)

Max. Discharge Current Peak 600A/ 5S

Charge Method: CC/CV

Charge Voltage: 58.4V

Recommend Charge Current: 25A

Operating Temperature Range:

Charge: 0°C to 45°C (32°F to 113°F)

Discharge: -20°C to 60°C (-4°F to 131°F)

Storage: -10°C to 50°C (-14°F to 122°F)

Low temp cut off protection (Charge): 0°C ± 4°C (32°F ± 7.2°F)

Safety Features: BMS, Over Charge/Discharge, Low/High Temp Cut-off, Over Current, Short Circuit

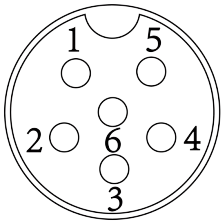
100%Capacity/SOC

0.00A Charge/Discharge Current

1~16 Voltage of each cell

DSG Discharge State

CHG charge State



Item	PIN Definition
Pin1	485A
Pin2	485B
Pin3	Battery+
Pin4	Battery-
Pin5	Empty
Pin6	Empty

5.Parallel Batteries

Connection Tips

Check as below before connecting :

a. connect batteries with same capacity(Ah) ONLY.

b. connect batteries with same voltage(V) ONLY.

c. connect batteries with the same brand ONLY.

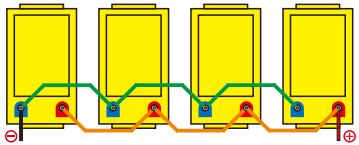
Two Necessary Steps Before Connecting:

These two steps are necessary in order to reduce the voltage difference between batteries, and through these, the battery system can perform the best of it in parallel.

Step 1: Fully charge your batteries separately.

Step 2: Connect your batteries one by one inparallel.

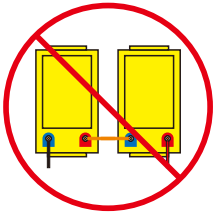
5.1Parallel connection of batteries



Capacity of parallel battery	Battery Numbers	Limited Charge Voltage	Discharge Cut-off voltage
36V105Ah	≤4PCS	43.8V	32.4V
48V105Ah	≤4PCS	58.4V	43.2V

5.2Notes for parallel connection:

- Fully charge all the battery firstly, then connect them in parallel.
- The voltage difference between parallel batteries cannot ⩾ 0.90V
- The number of batteries in parallel is ⩽ 4 PCS, Do not connect in series.
- Do not mix in series or parallel with lead-acid batteries or different types of lithium batteries ; Only use batteries with the same type and same capacities.
- Battery parallel connections need to be charged according to the standard charging voltage in the above table, and a special charger for lithium batteries is recommended;(Follow note as above when selecting proper chargers)



Do not connect in series

6.Bluetooth App Download And Use Instructions

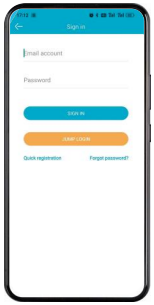
APP DOWNLOAD INSTRUCTIONS

❶ Please scan the QR code below to download the APP, which is compatible with Android and MAC systems.

XIAOXIANG ELECTRIC APP

❷ Please select the option to 'Open in browser' and follow the system prompts to download the relevant app for your operating system.

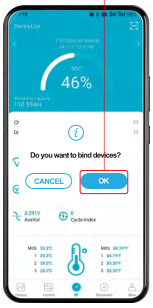
❸ Open and enter the APP registration or login account



❹ The application will automatically navigate to the Device list field, where the user can select the device they wish to connect to (according to the MAC address on the back of the Bluetooth module or the built-in Bluetooth aluminum sticker, as shown below) or scan the MAC QR code to connect the device directly.

Method 1:Scan the MAC QR code of the label to enter the corresponding device directly

Method 2: Select the MAC address of your device and click Connect

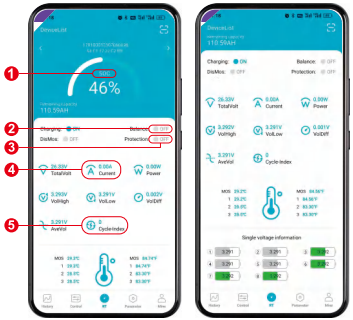


Determine the device to be bound after the connection is established

Bluetooth label

APP INTERFACE UCE INSTRUCTIONS

《Real-time》interface(1)



❶ The SOC is not correctly connected for the first time. In order for the SOC to calibrate automatically,you will need to set the capacity of the battery string and charge and discharge once or twice a day.

❷ The balance will not be initiated until the set pressure difference and balance value have been reached.

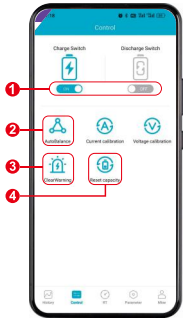
❸ If the protection board fails to output after protection,a protection status message here,For example,this could be a single string undervoltage protection message.

❹ The discharge is negative and the charge is positive. When charging at 5A, the display will show 5A. When discharging at 5A, the display will show negative 5A.

❺ When the cumulative discharge capacity exceeds the cycle capacity of the set parameters,the number of cycles will be increased by one.Furthermore, midway charging will not affect the metering.

《Control》interface(2)

The device features a charge switch, discharge switch, automatic balance, clear alarm, and reset capacity. It can be controlled via the app to regulate BMS board data. The following diagram



❶ Control charge and discharge button. If enabled, charge and discharge is enabled. Reverse off.

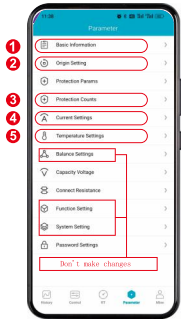
❷ After clicking, the protection board will automatically balance without being affected by charge and discharge. Turn off the automatic balance,if the pressure difference is less than 10mV or simply click again.

❸ Clear alarm data.

❹ Re-estimate the remaining capacity based on the current voltage.

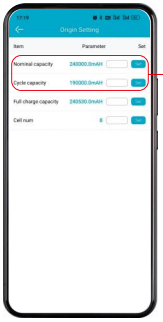
《Parameter》interface(3)

The following diagram illustrates the basic information, initial settings, and password settings. If you require protection parameters, current settings, temperature settings, balance settings, function settings, or other parameters, please log in to the account and bind the device.



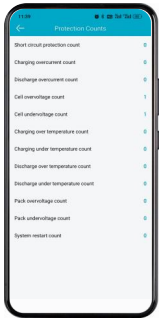
❶ Customize the Bluetooth name (distinguish between different Bluetooth devices)

《**Basic information**》 **interface**



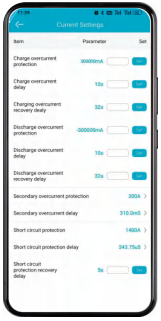
❷ The nominal capacity represents the actual capacity of the battery, while the cycle capacity is 80% of the nominal capacity. This will affect the accuracy of the SOC if not modified.

《**Capacity setting**》 **interface**



❸ Automatically record the protection information of the protection board, such as the occurrence of monomer overvoltage protection, the number of +1.

《**Guard frequency**》 **interface**



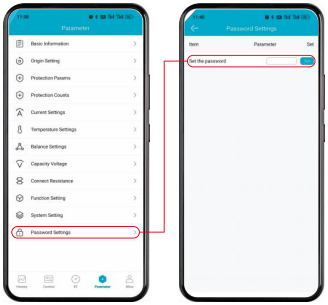
❹ Please note that it is not advisable to increase the overcurrent protection value of charge and discharge.Should you require further information, please consult with a member of our sales team.

《**Guard frequency**》 **interface**

❺ In the event that the temperature probe detects a temperature in excess of the specified threshold, the system will initiate a protection mechanism, with a trigger time exceeding the delay time. Please refer to the remainder of this document for further details.

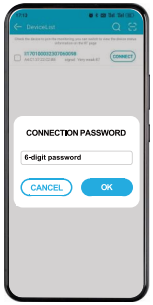
《**Temperature setting**》 **interface**

1. 《Parameter》 《Password Settings》 interface → Bluetooth Password Settings



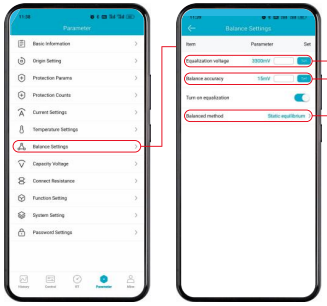
You can set a six-digit connection password: After setting, enter the password to enter the APP, as shown below.

Please enter the password to access the APP. If you forget the password, you may click the connection cable five times to enter the management code.



Please enter the administrative password to access the application and clear the connection.

2. 《Parameter》 《Balance Settings》 interface→ Balance setting procedure



Set the balanced voltage point

Set the opening pressure handicap

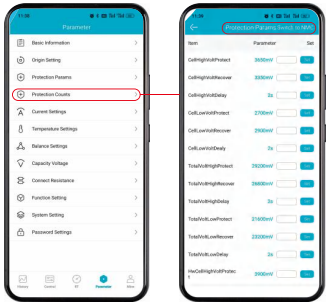
Please set the balance mode as follows:

1. Charge balance: When the charging reaches the balanced opening voltage and the pressure difference is greater than the set pressure difference, the balance will be opened.

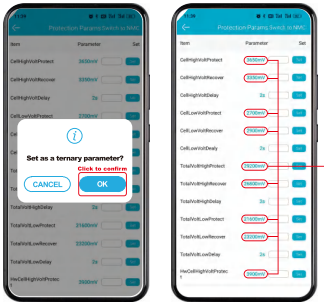
2. Static balancing: When the battery is standing, the balanced opening voltage is reached and the pressure difference is greater than the set pressure difference, the balance will be turned on.

3. It is not advisable to set the pressure difference to the minimum, which should be at least 10 mV. The factory default value of 30 mV is generally sufficient.

3. 《Parameter》 《Protection parameter interface → One-click modify ternary, lithium iron setting steps



Click the <one key three or one key lithium iron> button on the upper right to directly modify the three zero or lithium iron parameters.

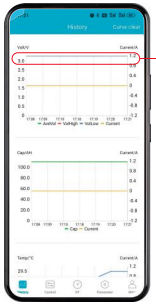


Click < Confirm > and return to the previous level. The parameters will then be automatically refreshed to the modified parameters. At this point, the upper right corner will also display the ternary or lithium iron button switch.

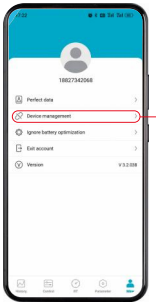
4.Single overvoltage protection: as long as a string of batteries reaches this setting value, they will all be protected and cannot be charged. Single overvoltage release: After overcharge protection, each string of batteries should be lower than this value before charging can be restarted; The same is true for undervoltage and whole group voltage protection values.

《History》 《Mine》 interface(4)

The display should show the curves of the maximum and minimum battery voltage, battery current, remaining capacity, and temperature, with the latest 100 data points, one per minute, as illustrated in the following figure.



The connected APP will record the data and generate a graph.



View or detach a bound device.

CONTACT US

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Tel: (562) 456-0507