

VEVOR

Upgrade · The Home Creator Way



SW-51.2-100-TK-1

VEVOR Support Center

Golf Cart Battery

MODEL: SW-51.2-100-TK-1

FCC ID: 2BW3R512100-752

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(The picture is for reference only, please refer to the actual object)

This is the original instruction, please read all manual instructions carefully before operating. VEVOR reserves a clear interpretation of our user manual. The appearance of the product shall be subject to the product you received. Please forgive us that we won't inform you again if there are any technology or software updates on our product.

	Warning-To reduce the risk of injury, user must read instructions manual carefully.
	This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:(1)This device may not cause harmful interference, and (2)this device must accept any interference received, including interference that may cause undesired operation.
	This product is subject to the provision of European Directive 2012/19/EC. The symbol showing a wheeled bin crossed through indicates that the product requires separate refuse collection in the European Union. This applies to the product and all accessories marked with this symbol. Products marked as such may not be discarded with normal domestic waste, but must be taken to a collection point for recycling electrical and electronic devices
	High voltage.Risk of shock.Do not touch uninsulated terminals or connectors
	Authorized personnel is allowed to operate only.Do not disassemble or incinerate Follow product charging instructions.
	No sparks ! No flames ! No smoking!
	Keep out of the reach of children

INSTRUCTIONS

Disclaimer

Before using the product, please read the user manual of this product to ensure correct use after full understanding. After reading, please keep the user manual in a safe place for future reference. If you do not operate this product correctly, you may cause serious injury to yourself or others, or cause damage to the product and property. Once you use this product, you are deemed to have understood, recognized and accepted all the terms and contents of this document. Users promise to be responsible for their own actions and all consequences arising therefrom. Our company is not responsible for any losses caused by users not using the product in accordance with the User Manual.

Subject to complying with laws and regulations, our company has the final right to interpret this document and all related documents for this product. It is subject to update, revision or termination without prior notice.

Note:

First time use requires a calibration of the battery, a deep full discharge followed by a charge is required!



Warning

1. It is strictly prohibited to place this product close to heat sources, such as fire sources or heating furnaces.
2. It is strictly forbidden to let this product come into contact with any liquid. Do not immerse this product in water or get it wet. Never use this product in rainy or humid environments.
3. It is prohibited to use this product in an environment with strong static electricity or strong magnetic field.
4. It is prohibited to disassemble this product in any way or puncture it with sharp objects.

5. It is prohibited to use wires or other metal objects to cause short circuit of this product.
6. Do not use unofficial parts or accessories. If you need to replace it, please contact our sales channel to inquire about relevant purchase information.
7. When using this product, please strictly follow the ambient temperature specified in this user manual. If the temperature is too high, the battery may catch fire or even explode. If the temperature is too low, the product performance will be seriously reduced, and it may even fail to meet normal use requirements.
8. It is prohibited to stack other heavy objects on this product.
9. It is prohibited to forcibly block the fan during use or leave this product in an unventilated or dusty space.
10. Please avoid impacts, drops, and violent vibrations. If there is a severe external impact, please turn off the power immediately and stop using it. Please secure it properly during transportation to avoid vibration and impact.
11. If the product accidentally falls into the water during use, please place it in a safe open area and stay away from the product until the product is completely dry. The dried product must not be used again. Please dispose of it properly according to the disposal methods in this manual. If the product catches fire, please use fire extinguishing equipment in the following recommended order: water or water mist, sand, fire blanket, dry powder, carbon dioxide fire extinguisher.
12. If there is dirt on the interface of this product, please wipe it clean with a dry cloth.
13. Please place this product carefully to prevent the product from falling over and causing damage. If the product falls over and is seriously damaged, please shut down the product immediately, place the battery in an open area, away from combustibles and people, and scrap it in accordance with local laws and regulations.
14. Please store this product out of the reach of children and pets.

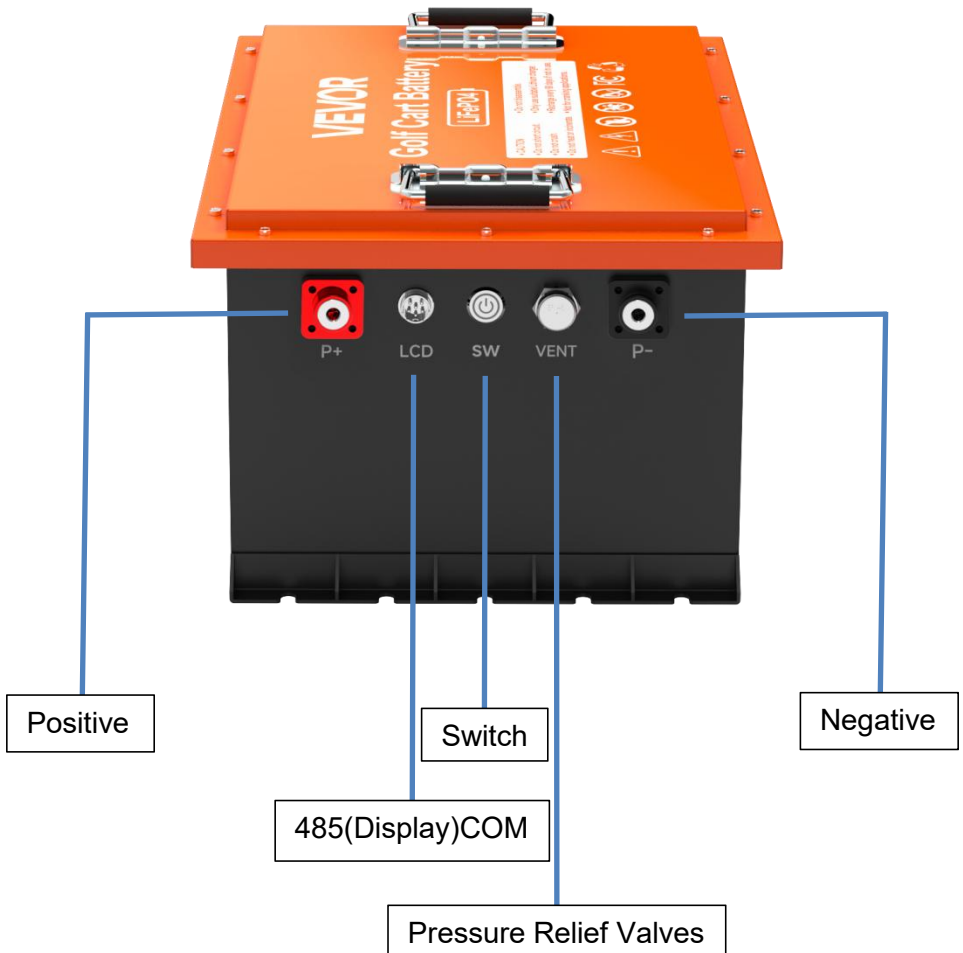
PARAMETERS SPECIFICATIONS

Standard parameters		
Battery specifications	51.2V 100Ah	
Nominal voltage	51.2 V	
Nominal capacity	100Ah±5%	
Nominal energy	5120 Wh	
Standard charging voltage	58.4V	
Standard discharge cut-off voltage	43.2V	
Standard charging current	18A	
Continuous working current	100A	
Maximum discharge current	300A(3S)	
Initial internal resistance	≤50mΩ	
Shell material	Sheet metal	

Battery specifications	
Battery Type	Lithium iron phosphate battery
Battery cycle life	After 4000 cycles, the remaining capacity is still more than 80%
protection function	200 A BMS management system, with overcharge protection, charging over current protection, discharge over current protection, short circuit protection, discharge high temperature protection, discharge low temperature protection, charging high temperature protection, charging low temperature protection, FET high temperature protection
Working environment temperature	
working temperature	0 ° C to 45 ° C (recommended ambient temperature 20 ° C to 30 ° C), and humidity below 70 ° C%
Storage environment	-10 ° C to 45 ° C (recommended storage temperature 20 ° C to 30 ° C), humidity below 70%
Charging temperature	≤55℃
Discharge temperature	≤55℃

USER GUIDE

Product appearance introduction



LCD interface introduction

1. Main interface after unlocking



2. PIN Definition



485

J1 Display external interface	1	B+ is connected to the positive terminal of the battery. The voltage is limited to 10-90V.
	2	RS485-A
	3	RS485-B
	4	Connect the negative terminal of the battery

Bluetooth application communication function

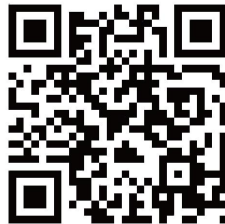
The APP mainly displays: lithium battery voltage, current, capacity, temperature and other curves, charge and discharge switch control, SOC, battery voltage, charge and discharge current, protection status, basic parameters, etc. Through the background permission operation, you can also set the parameters of the lithium battery protection board, so that the health status of the lithium battery is more transparent, to ensure the safety of the lithium battery.

Download instructions

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



IOS



Android

APP User Guide

Android 5.0/10S 10.0 or later can be used on devices that support Bluetooth 4.0, and once you have Bluetooth permissions, you can run.

Entry

After the APP is installed successfully, open the APP and allow Bluetooth to be opened. The APP will automatically pop up to obtain location information

(1) Bluetooth connection/disconnection: After successful login, the APP will jump to the Bluetooth list and select the Bluetooth to be connected.

(2) Switching batteries: When there are multiple batteries, you can view multiple Bluetooth names in the list and quickly switch the battery to be connected on the real-time interface.

(3) Scanning code connection: In the upper right corner of the real-time interface, click the scanning code button to directly connect by scanning the bar code of the Bluetooth module.

(4) Search Bluetooth: On the device list page, when there are multiple batteries, you can quickly find the one you need to connect by searching the Bluetooth name.

(5) Disconnect Bluetooth: On the device list page, click Disconnect.

CHARGING METHOD

AC charging

1. Usage and precautions

Before charging, check that the battery parameters of the OEM device match the label information on the charger, and ensure that the machine is turned off.

When charging, first connect the charger to the battery, and then plug in the power plug. Once charged, the charger can be attached to the battery indefinitely for both on-board (internal) and on-board (external) applications.

If the user needs to use the electric car during the charging process, please unplug the charger cable before normal use of the electric car.

NORMAL USE OF CHARGER

Indicator status:

Indicator Display description	
Battery indicator	Blinking red: Charging The green light is always on: full
Battery indicator	Alternating red and green

Find and repair faults

If the charger fails, please follow the following table:

- (1) Input voltage error: Check whether the input voltage meets the requirements or not.
- (2) Overheating of the machine: Note that the ventilation of the workplace does not allow anything to be covered on the charger.
- (3) Output short circuit: Check the wiring of the output terminal to eliminate short circuit.
- (4) No battery or reverse battery: Check the battery connection and

correctly connect the battery.

(5) Charger overheating: Ensure that the charger vent and space are kept unblocked and away from heat sources.

Do not attempt to repair or open the charger, as this may pose a risk of injury.

Please contact our company or local dealer to check whether the charger parameters are set correctly.

Routine maintenance

Always check the connection between the charger's power cord and the battery to avoid electric shock or leakage accidents caused by improper charging.

After long-term use, when the charger is disconnected from the power supply and battery, you can wipe it with a dry cloth, or use a small amount of industrial alcohol to wipe stubborn stains. This is part of good maintenance. After long-term use, a large amount of dust may accumulate on the fan, which will affect the cooling effect. You can use a brush to clean and vacuum.

Before charging, please make sure that the current and voltage parameters of this product meet your battery pack charging requirements, otherwise the battery pack may be damaged.

warning!

When wiring, do not connect the positive and negative poles reversely, as reverse connection will not damage it.

During the charging process, if the red indicator light flashes, you should stop charging immediately and investigate

The internal voltage of the charger is too high. You are responsible for any consequences of unauthorized opening for research or repair.

Do not charge non-rechargeable batteries.

When charging, it is strictly prohibited to touch the input and output live broadcast terminal.

When the charger is damaged due to collision or other reasons and the internal parts are exposed, please do not touch it with your hands to avoid electric shock and injury.

It is strictly prohibited to replace the controller cable and do not pull the cable forcefully. If the power cord is damaged, to avoid the risk of injury, stop using the charger and contact the manufacturer. The temperature of the charger shell may be high during the charging process or just after charging. Do not touch the metal shell. During the charging process, it is strictly prohibited to cover the air inlet and outlet of the charger to ensure that the charger fan is protected to avoid injury. Normal operation. The charger should be placed in a ventilated and dry environment, away from flammable and explosive materials to prevent fire.

Safety instructions

- 1) Please read all instructions and precautions before using this product. Only charge rechargeable aluminum-acid batteries or lithium batteries under specified circumstances. Other types of electricity may explode products using batteries.
- 2) Do not expose the product to rain or snow
- 3) Note: To prevent fire hazards, the product can only be used in a dry and ventilated room free of flammable liquids and explosive gases.
- 4) During the charging process, do not cover the product with clothing or similar items. Keep the air flowing!
- 5) Use of accessories not recommended or delivered by the battery charger manufacturer may result in a risk of fire, electric shock or personal injury.
- 6) To reduce the risk of damage to electrical plugs and cords, use the plug rather than the cord when disconnecting the product.
- 7) Make sure not to use extension cords unless absolutely necessary. Improper use of extension cords can cause fire and electric shock hazards.
- 8) Make sure the rope is positioned so that it cannot be stepped on, tripped over or otherwise damaged or stressed.
- 9) Do not operate the product with damaged cords or plugs - replace them immediately!
- 10) Do not operate the product if it has been hit, dropped, or otherwise damaged.
- 11) Please do not disassemble the product!

12) To reduce the risk of electric shock, unplug the product's power cord and battery socket before attempting, servicing, or cleaning

13) This product is suitable for use by children aged 8 years and over and persons with reduced physical, sensory or intellectual abilities or lack of experience and knowledge, provided they have been supervised or instructed in using the device safely and understand the risks involved. Do not allow young children to handle this product without supervision as the cable may pose a strangulation risk and the small parts may pose an aspiration or swallowing risk;

14) Animals are not allowed to come into contact with this product. Some animals are known to damage electrical cables, etc., which can be a potential risk of electrocution and overheating. Additionally, cables and small parts can pose a choking risk to animals.

15) When a product reaches the end of its life cycle, discarded electrical and electronic equipment should not be discarded together with unseparated municipal waste but must be collected separately. As a consumer, you play an important role in product recycling and protecting the environment

16) When replacing a fuse, you must use a fuse of the same type and rating.

17) The product must be kept away from heat sources and must not be used near flammable gases or in other environments with flammable or explosive atmospheres.

18) Use power cords and AC plugs that meet country-specific requirements.

19) If it comes with stripped output wires (without connectors), the product will not pose any danger because the product is short-circuit protected.

20) Warning: No modifications to this device are allowed. Any repair/service should be performed by qualified personnel who can obtain assistance by contacting the manufacturer or the manufacturer's agent.

PRODUCT FAQS AND PRECAUTIONS

1. What type of battery does the product use?

This product uses high-quality lithium iron phosphate batteries with higher safety factor.

2. How to know how long the product can provide power?

The LCD screen of this product will display the battery life. For devices with generally stable power consumption, this time can be estimated.

3. How to store the product?

When storing, please close this product first, and then store it in a dry, ventilated place at room temperature. Do not store this product in a humid environment. During long-term storage, it is recommended to discharge the battery to 30% and recharge it to 60% every three months to extend the service life of this product.

4. How to tell if the product is charging?

When charging, the LCD screen will display the remaining charging time, and the power indicator other than the battery power percentage will begin to flow from bottom to top, and the charging power will be displayed.

5. If the product is seriously low on power and idle for too long, the product will enter deep sleep mode, and the product must be charged before use again.

6. If long-term storage is required, please charge and discharge this product once every 3 months (that is, first discharge the product to 30%, and then charge it to 60%).

7. For safety reasons, do not store this product in an environment above 45°C or below -10°C for a long time.

8. In order to extend the service life of the battery, it is recommended to use or store this product in an environment of 20°C to 30°C, away from water sources, heat sources, and other metal objects.

9. If the power of this product is less than 10% after use, please charge it to 60% before storing it. If left idle for a long time when the battery is

seriously low, it will cause irreversible damage to the battery core and shorten the service life of the product.

10. Please tighten all cable connections as loose cable connections can cause terminals to melt or catch fire.

11. Do not puncture, drop, crush, burn, penetrate, shake or hit the battery.

12. The battery should be firmly fixed during transportation to prevent collision or falling.

13. Cables should be securely fixed on a solid surface, and cables should be securely tied in place to avoid arcs and sparks due to friction. Do not place heavy objects on it for long periods of time as this may damage it due to internal short circuits.

14. Whether the battery is in use or in standby mode, do not immerse the battery in water. Non-professional technicians are not allowed to open, disassemble or modify the battery.

15. If the battery casing is damaged, do not touch the exposed electrolyte or powder. Uncovered electrolyte or powders that comes into contact with the skin or eyes must be rinsed immediately with plenty of water and seek medical attention afterward.

16. Use circuit breakers, fuses, or disconnect switches that are properly configured by a certified electrician, licensed installer, or area code authority to protect all electrical equipment in your system. Batteries have a built-in Battery Management System (BMS) that protects the cells from overcharging, over discharging, and over current, but this alone will not protect your system from serious electrical conditions.

BATTERY DISPOSAL

1. If conditions permit, please be sure to completely discharge the battery of this product before placing the product in the designated battery recycling box. This product contains batteries, which are hazardous chemicals and are strictly prohibited from being disposed of in ordinary trash bins. For details, please follow local laws and regulations on battery recycling and disposal.
2. If the battery cannot be completely discharged due to the product's own failure, do not discard the battery directly in the battery recycling box. You should contact a professional battery recycling company for further processing.
3. After over discharge, the battery will not start. Please dispose of it as discarded.

The product complies with relevant standards and regulations. Installation of this device must comply with all applicable regulations, and it should only be operated in well-ventilated areas. Please read the user manual before installing and using this equipment.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children shall not play with the appliance.

Please properly keep product. Check whether the product is abnormal before use. If it is abnormal, please stop using it.

Please use the product according to the intended use, warn of potential injury from misuse.

Switch off the appliance and disconnect from supply before changing accessories or approaching parts that move in use.

always disconnect the appliance from the supply if it is left unattended and before assembling, disassembling or cleaning.

WARNING: Only use the supply unit provided with this appliance.

WARNING

Do not disassemble, crush, puncture, incinerate or heat the battery. It may cause leakage, fire or explosion.

Do not dispose of the battery in fire or high-temperature environments. Do not expose to direct sunlight.

Do not short-circuit the battery. Do not store with metal objects (keys, coins, etc.).

Do not use the battery if it is damaged, swollen, leaking or abnormal.

Do not modify the battery or replace non-original components.

Do not overcharge or over-discharge. Use only specified chargers and protection devices.

Do not use or charge in damp, flammable or explosive environments.

Charge only in a well-ventilated area, away from flammable materials.

If leakage, odor, overheating or deformation occurs, stop use immediately and keep away.

If electrolyte contacts skin or eyes, flush with plenty of water immediately and seek medical help.

Minors must not operate, charge or maintain the battery without supervision.

Do not dispose of used batteries as household waste. Recycle at professional collection points.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- 1.Reorient or relocate the receiving antenna.
- 2.Increase the separation between the equipment and receiver.
- 3.Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- 4.Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and(2) this device must accept any interference received, including interference that may cause undesired operation.RF Exposure Information

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

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