TRIPLO W
Criamos Segurança!

Installation Guide
User Manual

TW-SOLAR

POWER SUPPLY WITH SOLAR PANEL

Leia o manual com atenção antes da instalação e guarde-o para uso futuro.

Guarde as chaves mecânicas num local seguro para, em caso de avaria ou emergência, poder abrir a porta mecanicamente.

Technical Characteristics

- VOLTAGE：24V
- AMPERAGE：INPUT 10AMAX <50V
- BATTERY TYPE：

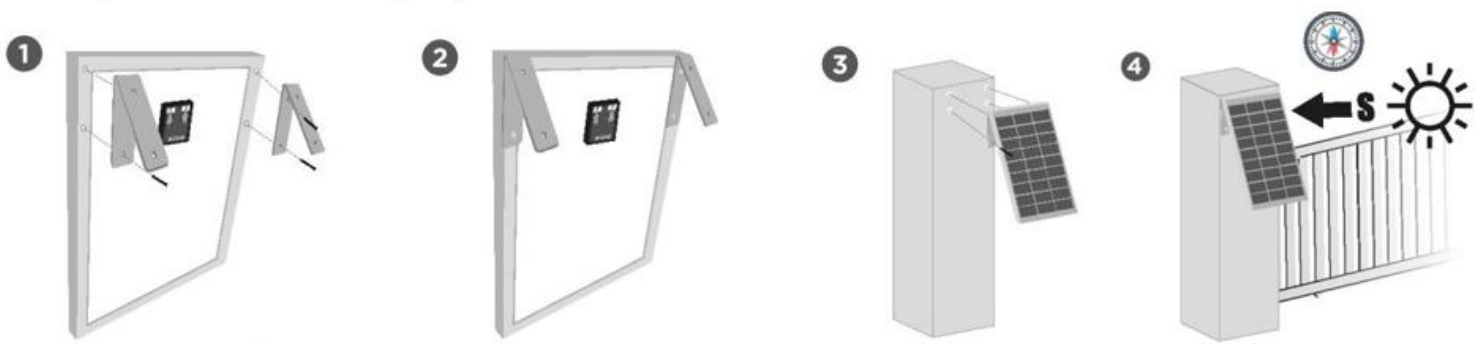
  B01=LEAD-ACID 12V X 2

  B02=LITHIUM ION 3s 3x3.7V=11.1V

  B03=LIFePO4 4s 4x3.2V=12.8V
- USB OUTPUT：5V/2A
- LOST WAIT：<10mA
- WORKING TEMPERATURE：-35~+60°C

Installation

Does not need to be in the shade. The solar panel works properly when there is no shade cast over it. 1st charge: 8 hours of sunlight.

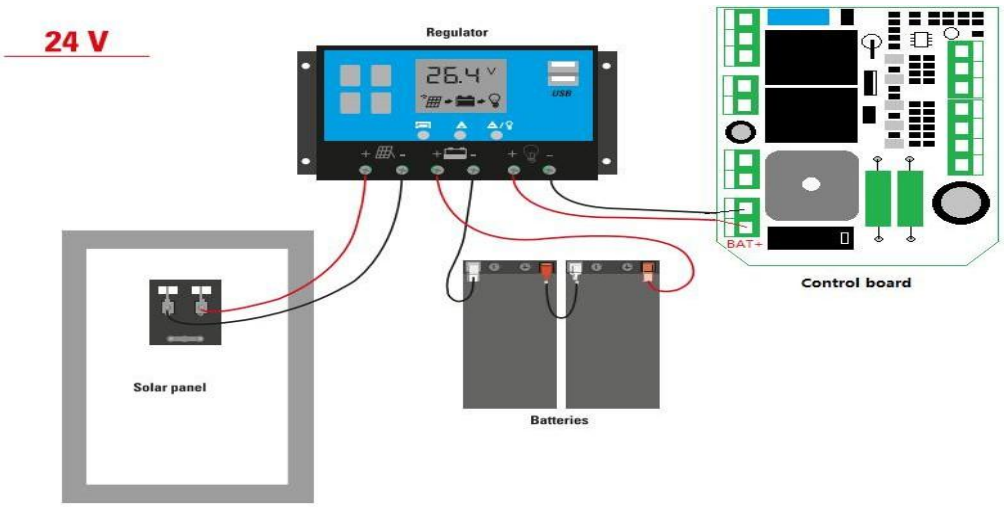


Electrical Assembly

1. Connect the battery to the charge regulator - positive and negative.
2. Connect the solar module to the regulator - positive and negative.
3. Connect the consumer to the charge regulator - positive and negative.

Reverse order applies when uninstalling!

Incorrect sequence order may damage the controller!

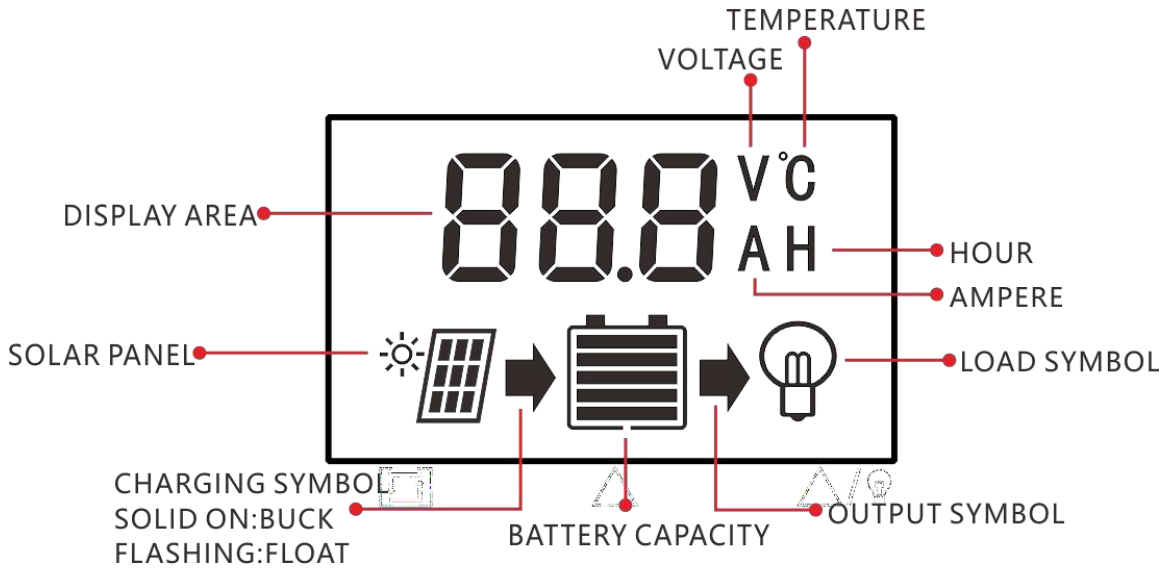


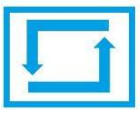
Electrical Assembly

1. Make sure the battery has enough voltage for the controller to recognize the battery type.
   battery before first installation.
2. The battery cable should be as short as possible to minimize losses.
3. The regulator is only suitable for lead-acid, lithium-ion and LiFePO4 batteries.
4. The charge regulator is only suitable for regulating solar modules. Never connect another charging source to the charge regulator..

Settings

The main display shows the battery voltage, battery capacity and charge and discharge status. Press [MENU] to access the next display tab.



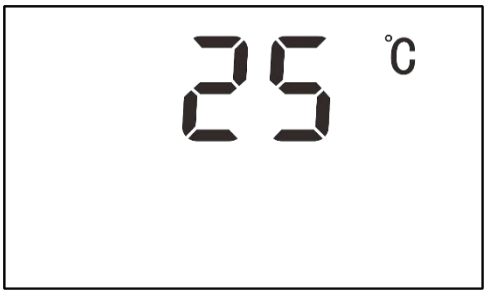


MENU：Switch between different views，or to enter/exit setup

press and hold.

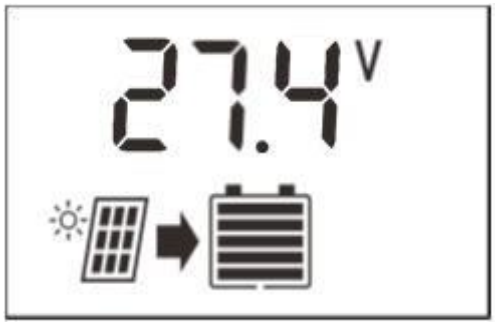
UP：Press to increase the value.

DOWN: Press to decrease the value.



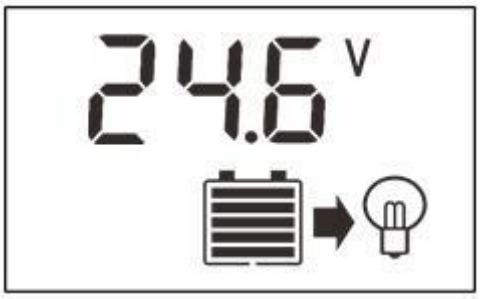
Solar panel temperature display

If the solar panel heats up during operation, it will turn off. automatically and will wait for the temperature to drop to the level normal, and then it will work again.



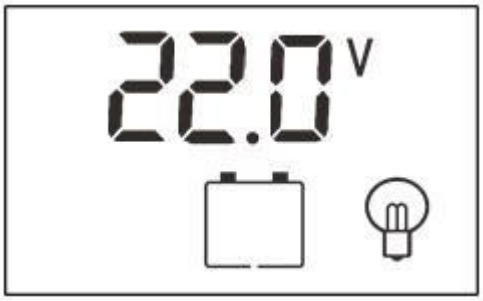
Charging voltage display

When the battery is charged to this voltage, it will maintain the float charge. Long press the [MENU] key until the numbers flash, use the UP/DOWN keys to select the desired voltage and then long press the [MENU] key again to exit the setting.



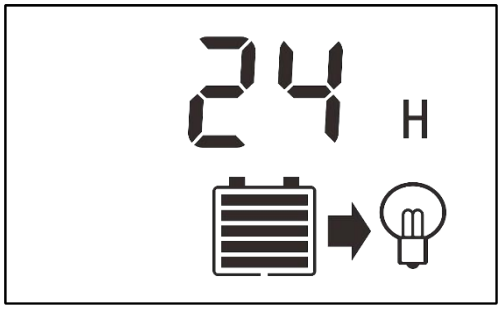
Low voltage reconnection display

When a low voltage disconnection occurs, the controller wait until the voltage increases more than the value specified and then reconnects the load. The configuration is the same as above.



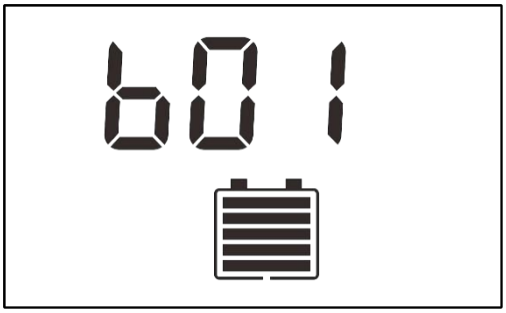
Low voltage disconnect display

When the battery voltage drops below this voltage, the controller will automatically cut off output. The configuration is the same as above.



Load working mode

24H indicator means the controller will supply power continuously. Indicator 0H means from dusk to dawn. Indicator 1-23H means activating the output after sunset of the sun and run a 1-23H and then close the output. The configuration is the same as above.

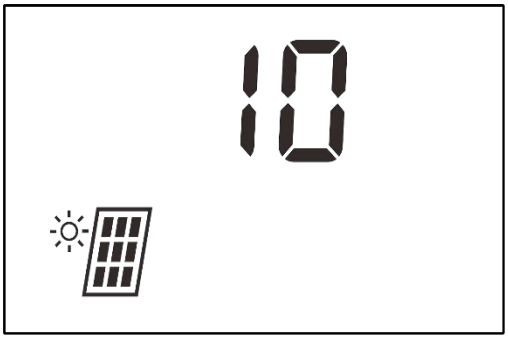


Battery type setting

01=LEAD-ACID 12V X2
02=LITHIUM ION 3 X3.7V
03= LIFePO4 4s 4x3.2V=12.8V A
configuration is the same as the previous one.

D2D trigger value (solar panel voltage)

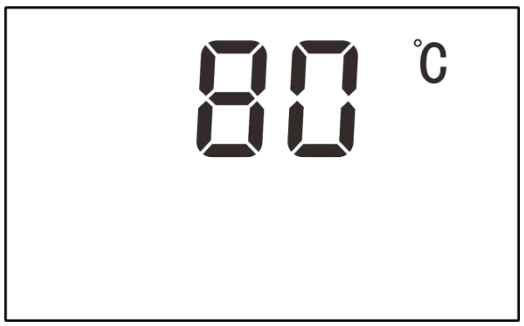
When the operating mode is D2D or Timer, the controller detects the solar panel voltage to determine whether it is day or night, activating the load output or not. The higher this value, the earlier the load output activates. The configuration is the same as above.



D2D trigger delay value (second)

When the controller detects that the solar panel voltage is below the set value, trigger, wait 10 seconds and detect again to ensure that night falls, activating the charging output. Some car lights or thunderstorms may confuse the controller into thinking it is daytime. Using this delay may avoid interference. The default values are recommended. The configuration is the same as above.

Unusual Display

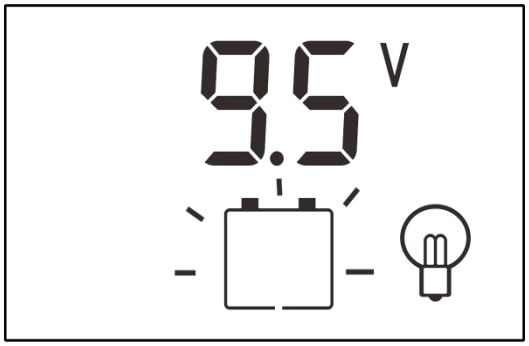


High Temperature Anomaly Interface

When the temperature of the control body is too high, it will enter in standby mode and will stop charging or discharging.

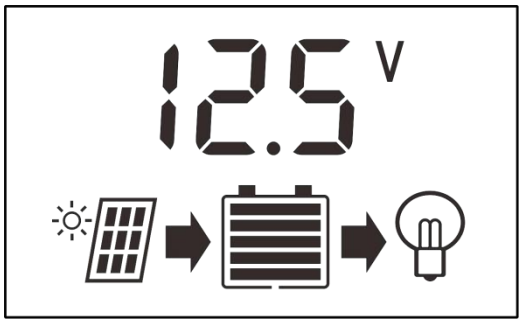
When the temperature drops to a safe level, it will start working again.

Press any key to ignore the command once and force the command to work again.



Low voltage protection interface.

The flashing flat battery symbol means that the battery is discharged below the LVD voltage. The controller disabled the output. The user must charge the battery until this reaches the LVR voltage and then the controller will recover the exit state. Press any key to ignore once and force it to work again.



Overcurrent or short-circuit protection circuit The flashing charging symbol means that there is protection against overcurrent or short circuit at the output. The controller will deactivate the output, wait 30s and will try to recover again. The user should check and fix the problem in time.

Frequently Asked Questions

Q1: Why doesn't the controller show charging when I connect the solar panel?

A: Carefully check that the solar panel wires are connected correctly and that there is no reversal. photovoltaic voltage must be higher than the battery voltage; a shadow over the source will cause a drop in voltage. Under normal circumstances, use an 18 V photovoltaic source to charge a 12 V battery.

Q2: Why is my charging current so small?

A: Using more solar panels and stronger sunlight will increase the charging current; otherwise, the Using the wrong PV voltage or shading the PV will reduce the charging current. Furthermore, addition, when the battery voltage is high, it will enter floating charging mode and the charging current load will also be lower.

Q3: Why is my consumer disconnected?

It may be the wrong working mode, how to set the working mode for D2D, but you are asking why is my consumer turned off during the day, or the battery is not enough and a problem occurred low voltage disconnection, or your consumer is broken, to check this, you can connect your consumer directly to the battery to see if it is working, carefully check the wires and so on onwards.

Q4: Is the stored solar energy not enough to supply the consumer?

A: If the energy generated by the solar panel is less than that used by the consumer, the consumer will have to draw power from the storage battery, which, day after day, will eventually trigger an LVD. Use more solar panels and add more battery capacity to avoid cloudy or rainy days, or you can reduce the consumer's power or runtime to balance the system.

Q5: Why does my battery drain very quickly after being fully charged?

A: Your battery may have been used for a long time and, after a few hundred cycles, it may be discharging. A discharged battery will no longer be able to hold electricity. Perform a simple test like this: when charging the battery, the voltage increases very quickly, and when discharging it again, it drops very quickly. This means you should replace the battery.