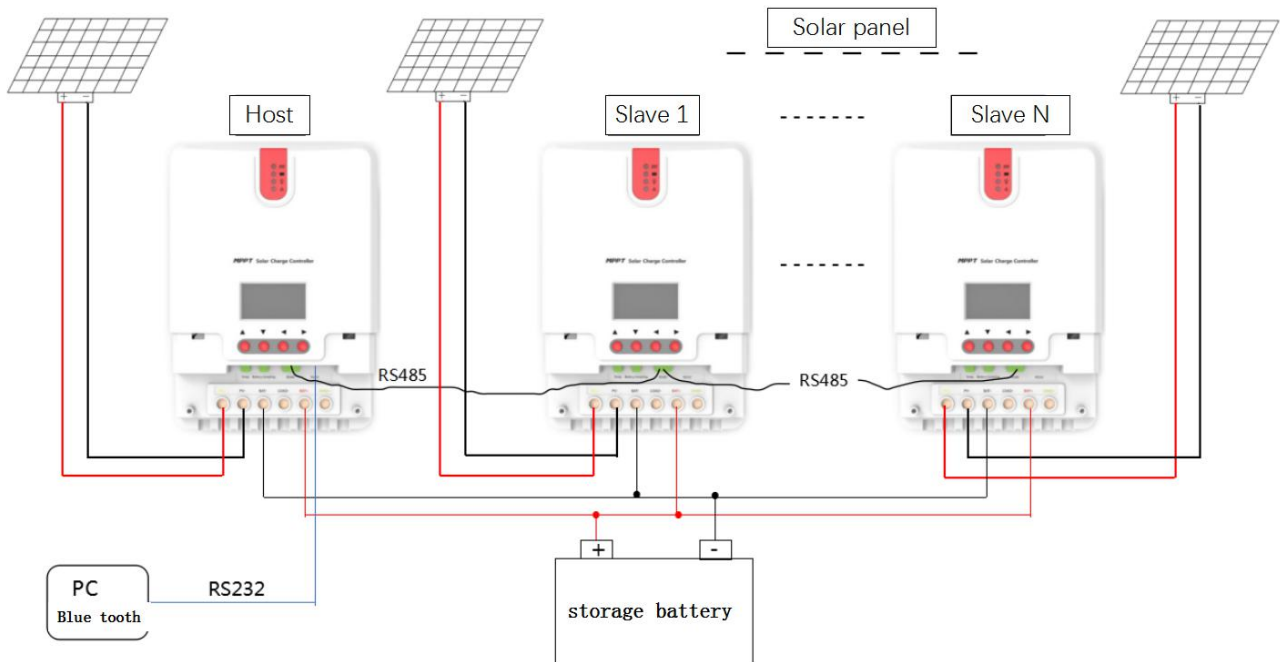


Controller user manual for parallel operation

1、Wiring diagram



① Controller

The controller can be used separately or parallel operation, and when used of parallel, it needs to connect the RS485 communication cable.

② Solar panel

The solar panel shall be connected independently with the controller, and the power of each circuit shall not exceed the rated power of the controller.

③ Storage battery

A battery pack consisting of several batteries and connected to a specific voltage and capacity

④ RS232 communication interface

Through RS232 connecting PC or bluetooth, it can realize information exchange with controller, real-time monitoring and other functions.

⑤ RS485 communication interface

The controller must be connected to the cable in order to realize the parallel operation of the product.

Order of connection:

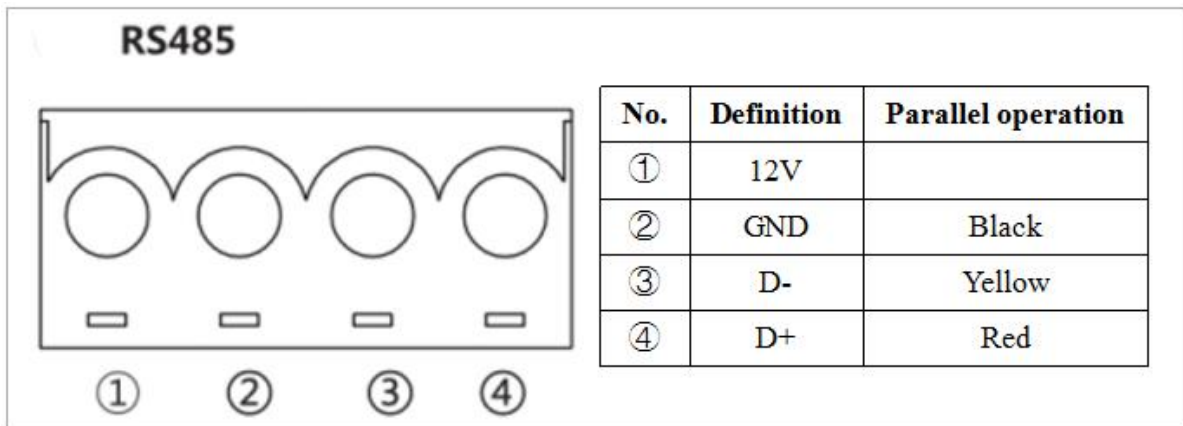
- ① Please connect the battery, then the solar panel, and finally connect the load. Please follow the “+” pole and “-” pole connection mode.

② Please connect the host first , then connect from the machine, and then connect the battery, solar panel and load to the controller according to the ID.

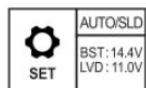
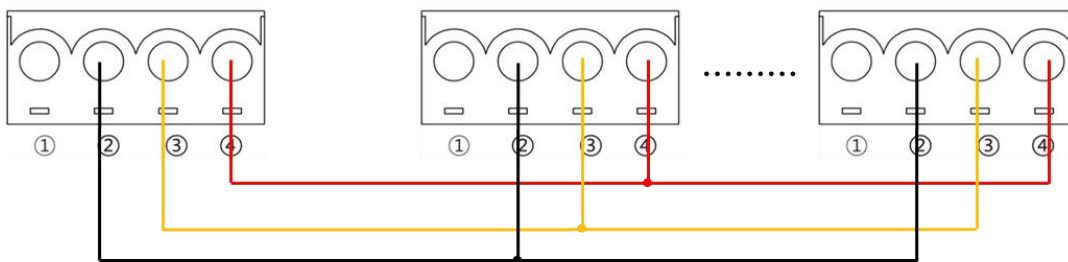
Note: we strongly recommend that the fuse be connected to the solar panel input end and the battery end to improve safety.

2、Interface definition

RS485 interface



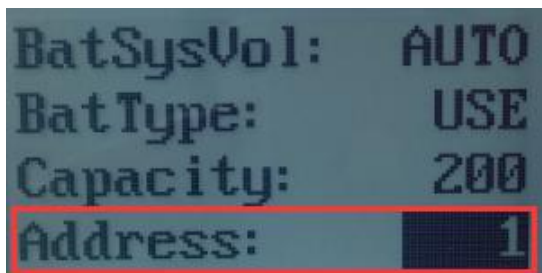
RS485 wiring diagram (parallel operation)



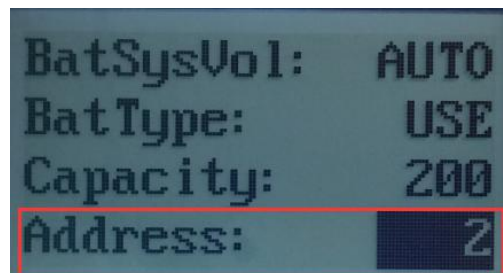
3、Parameter setting ()

① “Address” : The ID of the host must be minimal, followed by the number from the machine to the large set.

For example, the host ID is set to 1, starting with the ID of the machine from the number 2.



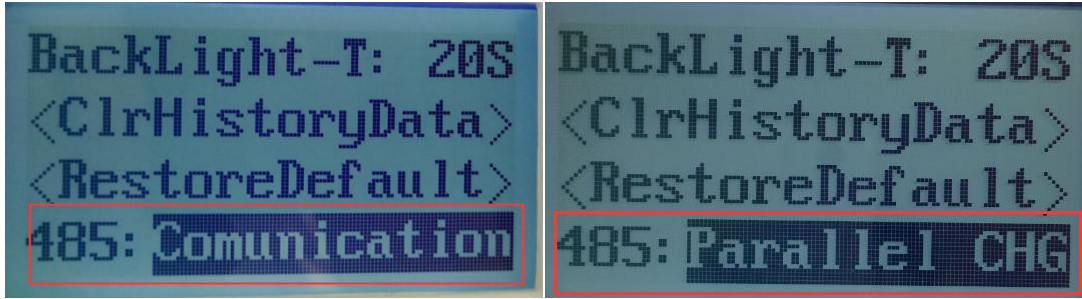
Host ID



Slave ID

Note: if the host fails, the minimum address ID from the machine will automatically change to the host and take over the rest from the machine, without causing the whole system to fail.

② “485” : parallel CHG(parallel mode), all controllers must be set to “Parallel CHG” mode.

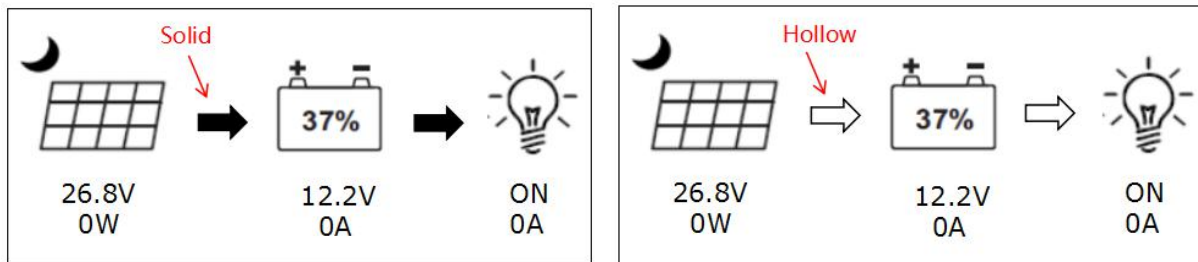


Communication mode

parallel mode

Note: the 485 interface of ML4860 can be used to communicate with external communication, or it can be used for Parallel operation. If it is used in Parallel operation, the function of 485 must be adjusted to “Parallel CHG” mode.

③ The left image is the interface of the host machine when it is used. The right image is the interface from the machine when it is used. (charging and discharging instructions are different)



Host

Slave