

Cascade Master-Slave Connection Manual

The connection between master and slave

1. Requirements for module connection

Link Cables



Multiple inverTech Heat Pumps



2. Communication connection between master and slave

At the corresponding position of the PCB, remove the port circled in red, connect the

signal wire as shown in the figure, and then re-insert it back in place.



3. Connection diagram 1# slave

Connect the other end of the master signal line to the same position of the **1**# slave. If there are multiple Slave units, please connect them to the following devices in sequence according to the following figure. The maximum supported is 9.



4. After the wire is connected, the PCB jumper of the master needs to be changed to the position as shown in the figure below (the slave remains unchanged): **BEFORE**



AFTER



Note: 1. When connecting the signal line, pay attention to the position of the red and white lines. The red end is connected to the connection line A/+ and the other end is connected to the of the main control board; the white end is connected to the connection line B/- and the other end is connected to the main control board. Units cannot communicate if the connection is wrong.



2. If the Cascade function and WIFI module need to be used at the same time, you need to purchase a BMS card separately to increase the available RS485 ports, and the RS485 port on the BMS card is only used for the WiFi APP interface.

Parameter configuration of master and slave

1. The parameter configuration steps of the host are as follows:



that, press

to confirm.

Step 4: Switch to page OT27, set "participate in the rotation" of slave 1#, 2#... to [Yes] to enable the slave.

Step 5: After the host parameters are adjusted, adjust the slave parameters





Note: If the "participate in rotation" of slave is adjusted to "no", the slave will not be activated. Slave off-line time: If the slave is detected to be offline continuously, it will report a fault;

Slave loading time: when one machine is started, the other machine will only start after this time interval;

Slave load shedding time: when one machine is turned off, the other machine needs to be turned off after that time

Main engine rotation KP, TI, Td: the speed of constant temperature between the units.

2. The parameter configuration steps of the slaves as the following:



to confirm.

Step 4 : Switch the slave to the power-on page and set it to power on.

Step 5 : After the operation, power off both master and slaves for 1 minute, and then

power on again, the operation is complete.



Note: The address of the Slave units must be different, from the first to the ninth. The address is 1 to 9. One

master can connect up to nine slaves. OT26 can choose whether the current slave has hot water function or

not. If no, the slave will enter the standby state after the master switch to hot water mode. After the master

hot water is satisfied, the slave will exit the

hot water mode, and the slave will turn on and off with the master .

After completing previous steps & cascade connection is done.

Test communication by changing the working mode & setting water temp on the Master contr if Salve1# controller can adjust accordingly, it means cascade connection is correct. If cannot adjusted, or with error alarms such as (master unit is off), please check:

- 1. If cable connections are correct?
- 2. If the parameters in the Master heat pump & Slave heat pumps are both correct?