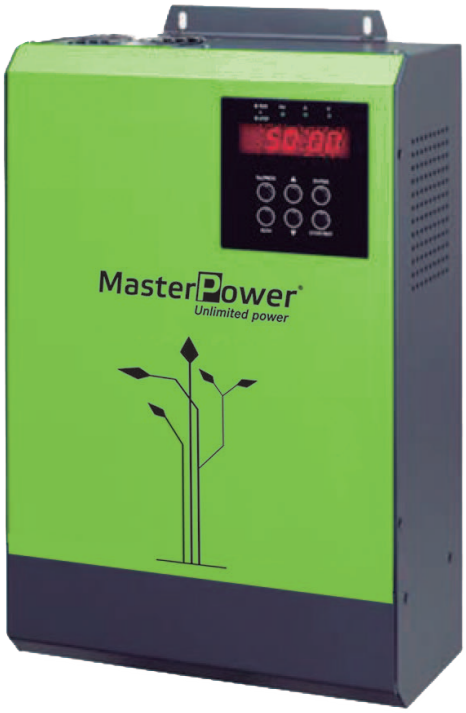
User Manual

MasterPower®
Unlimited power



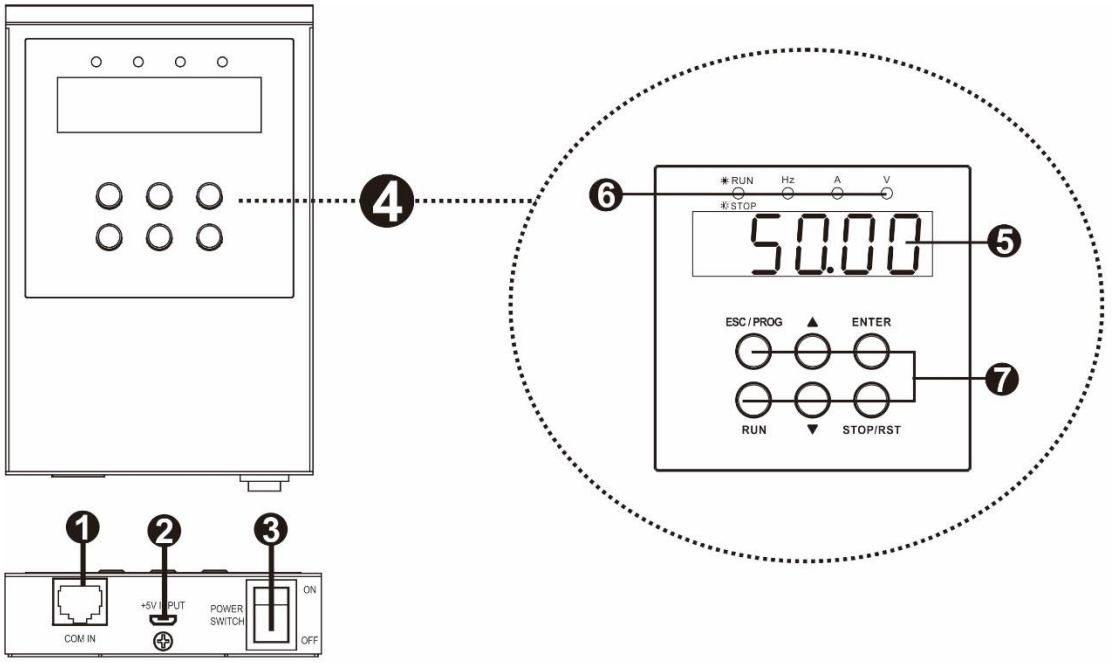
REMOTE PANEL FOR

WATER PUMP INVERTER

Version: 1.1

Product Overview

This remote panel is only for water pump inverter to remote control and monitor water pump inverter.



1. Communication port: Connect to inverter
2. External power input: It's optional external +5V power input when not using internal power source connection.
3. Power switch: Main switch of remote panel
4. Operation panel: Display screen and buttons
5. Display screen
6. LED indicators
7. Operation buttons

Unpacking and Inspection

Before installation, please inspect the unit. Be sure that nothing inside the package is damaged. You should have received the following items inside of package:

- Remote panel x 1
- User manual x 1
- Communication board x 1
- Screw x 2
- 2P power line x 1
- RJ45 cable x 1



INSTALLATION

Safety Caution

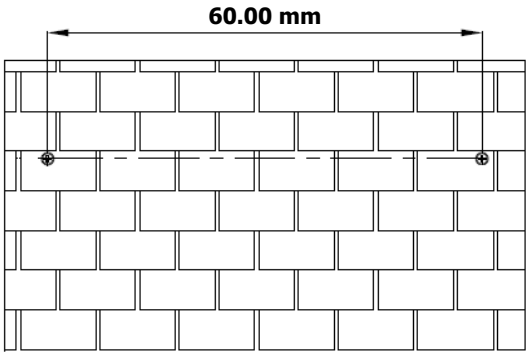
When connecting communication board, be sure no power available from the inverter. Otherwise, it will cause inverter or communication board damage.

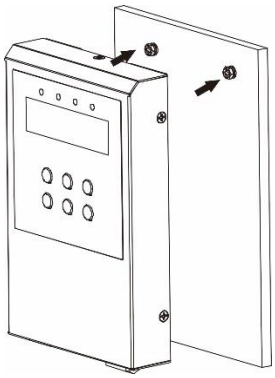
When connecting remote panel, please pay attention on the following items:

1. It's required to be firmly screwed when plugging communication board to the RS232 port on the inverter. It's to prevent communication lost during operation.
2. When using power input from the inverter (+VCC and GND terminals), do NOT mis-connect positive and negative terminals.
3. The maximum acceptable communication distance is 15 meters.

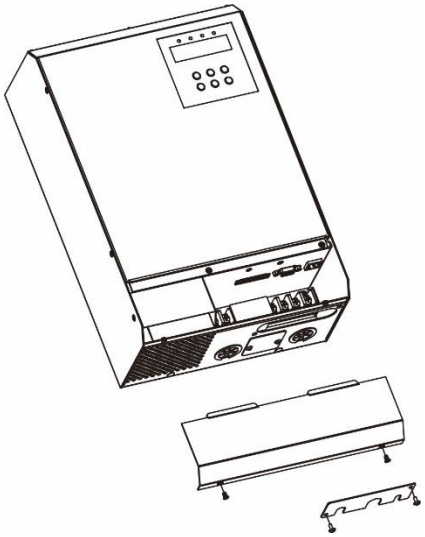
Wire Connection

Step 1: Drill two holes in the marked locations with two screws. Place the box on the surface and align the mounting holes with the two screws. Then, check if the remote panel is firmly secured.



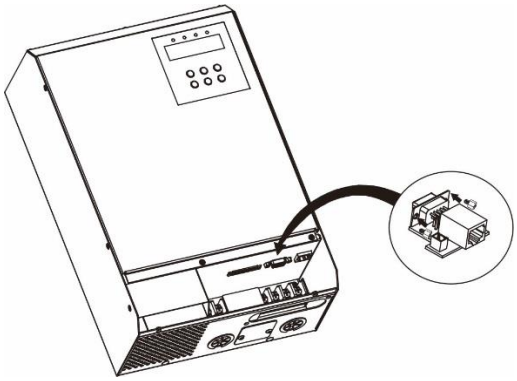


Step 2: Remove terminal cover and wiring cover.

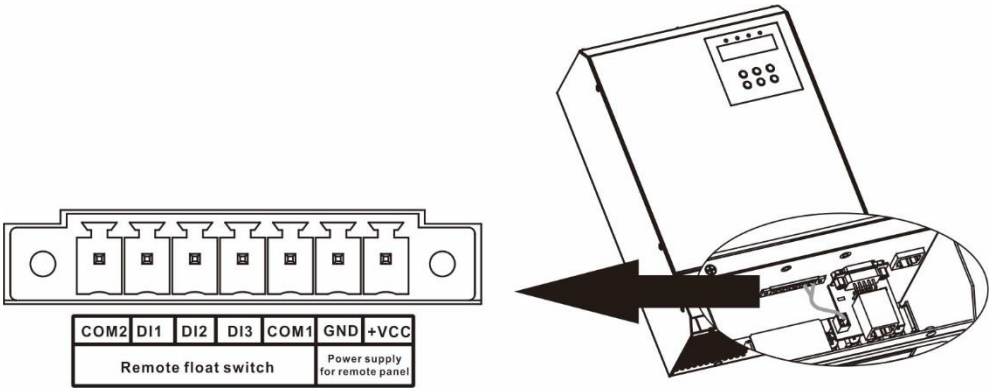


Step 3: Connect supplied communication board to RS-232 port on the inverter. Fix them with two supplied screws.

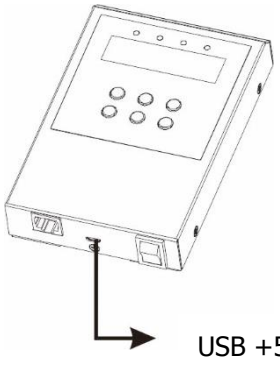




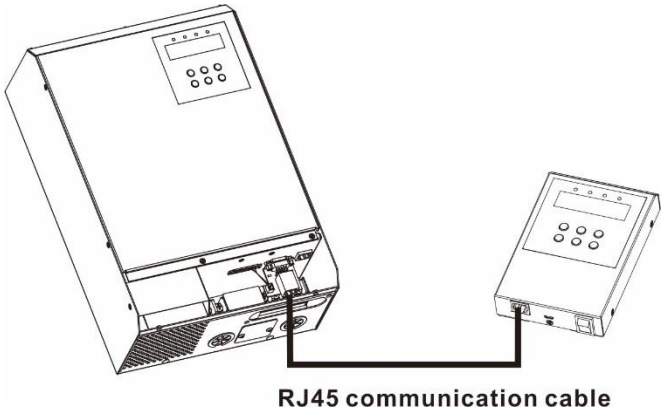
Step 4: Connect supplied 2-pin power line to the right two ports of signal control port as shown in below chart. Red wire to +VCC of the signal control port and black wire to GND of the signal control port. Then, connect the end of 2-pin power line to the communication board.



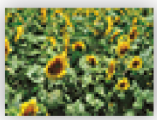
If not using this port as power input, please be sure to use micro USB port for external +5V power input.



Step 5: Use internet line to connect RJ45 port of communication board and RJ45 port on the remote panel. Then, put terminal cover and wire cover back to original position.







OPERATION

After wire connection is complete, please turn on the inverter. After turning on the power switch of remote panel, display screen will light up. Please refer to inverter user manual for the detailed operation of display screen.

FAULT REFERENCE CODE

Fault code	Fault type	Possible Cause
E01	Time out for BUS soft start	The resistor of soft start is broken.
E02	Relay fault	The Relay is broken.
E03	Over voltage in output	1. Inverter control is abnormal. 2. Detection is interfered.
E04	Over current in output	1. Output short circuited. 2. The motor is suddenly locked. 3. The motor is abnormal.
E05	Output voltage RMS High	Inverter control is abnormal.
E06	High PV voltage	1. PV input voltage is too high. 2. There is something wrong with voltage detection circuit.
E07	Current unbalance	1. Output phase loss 2. Output wire is short to the earth. 3. The motor is abnormal.
E08	Fan Locked. (only for 2.2KW/7.5KW/11KW models)	The fan is locked.
E09	Over Temperature	1. IGBT temperature is too high 2. The wire of IGBT temperature detection is not connected.
E10	Over current.	1. Output short circuited. 2. The motor is suddenly locked. 3. The motor is abnormal.
E11	Bus voltage over	1. Pump intrusion. 2. PV voltage is too high.
E12	Current detect fault	Current detection circuit is abnormal.
E13	Output voltage detect fault	Voltage detection circuit is abnormal.
E14	NTC0 no connect	Heatsink detected wire is not connected.
E15	NTC1 no connect	Environment temperature detected wire is not connected.
E16	Output setting is wrong. (only for 2.2KW LS model)	P5.00 parameter setting is wrong.
E17	AC input relay fault. (only for 2.2KW LS model)	AC input relay is broken.
E30	Communication fault between inverter and remote panel.	1. Cable connection is not well. 2. No power on the inverter.