

## SBP4K8 Battery Testing

### Battery Connection

To test whether the battery is connected to your system properly, ensure the **DC power cables** are firmly connected to the inverter terminals.

Make sure the **data cables** (labelled as CANH and CANL) are connected at **CANH** and **CANL** port of the inverter. Pull the data cables gently to ensure the cables are placed at the CANH and CANL slot of the inverter (Figure 1).

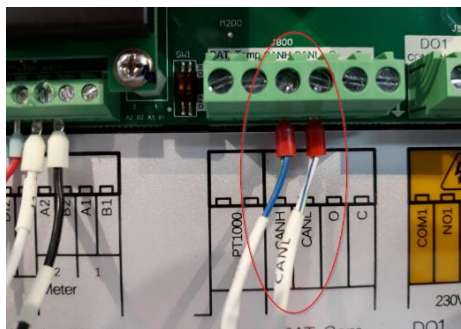


Figure 1 Battery communication cable at the inverter terminal

Please ensure the **'Battery Type'** and **'Battery Quantity'** has been entered correctly on the inverter menu. To set up the Battery on the inverter menu, firstly **Key Stop** the inverter. Now navigate to **Main Menu** → Select **Settings** → Enter Password **111** → Select **Battery Type and Battery Quantity** (Figure 2).

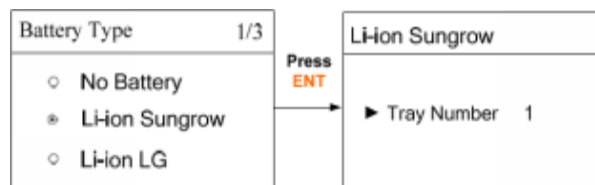


Figure 2 Battery type and battery quantity

Please power on the inverter, the LCD screen on the inverter should now display the battery as connected (Figure 3, left). If the battery is not connected properly the LCD screen will display '--' on the battery side (Figure 3, right).

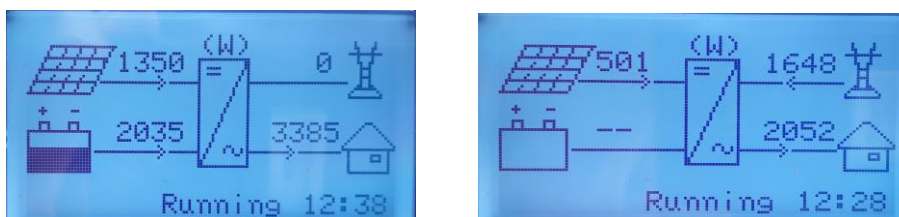


Figure 3 Battery connected (left) and Battery not connected (right)

If the LCD screen on the inverter shows '--' on the battery side, please re-check the wiring (especially the data cables). If the status on the inverter screen shows 'Error', check the error code on the inverter menu.

### Battery Status

Check the status of the battery via the LED light on the battery (Figure 4).

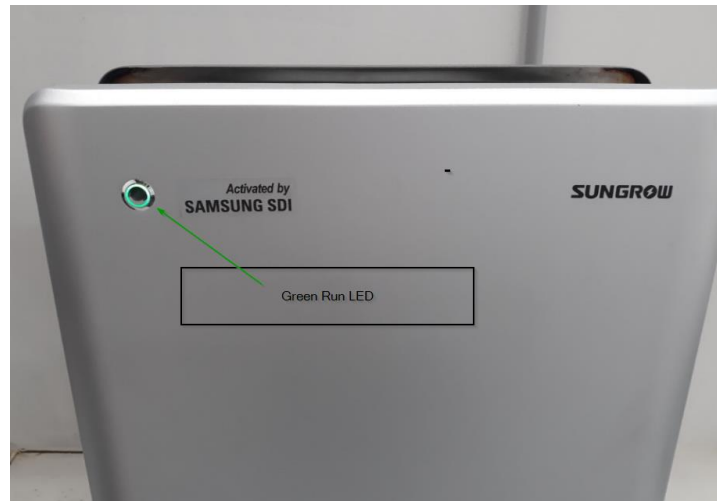


Figure 4 LED light on the battery

Table 1 below shows the battery state and definition of each state represented by different LED colour, which can be used to check the status of the battery.

Table 1 Battery LED colour, state and definition

Color	State	Definition
Green	On	Normal operation state.
	Blinking slowly (1s on and 2s off)	Standby state
	Blinking quickly (0.2s on and 0.2s off)	Starting state.
Red	On	Fault state.
Orange	Blinking	Upgrading state.
Off	-	The battery is not powered on.

If the battery is connected and displays Green LED light, measure the voltage at the battery terminal inside the inverter (Figure 5). During normal battery operation, the voltage at the battery terminal inside the inverter should range between **44.8V and 58.1V**.

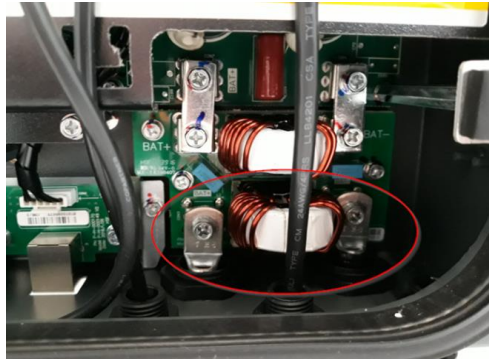


Figure 5 Battery terminals inside the inverter

If the battery is not connected properly or powered off, the voltage reading on the battery terminal inside the inverter may display around 20V, which is from the inverter circuit board.

If the LED on the battery does not display any light, it means the battery is OFF. To turn ON the battery, take the top cover off and press and hold the 'Red' button for **5 seconds** (Figure 6).



Figure 6 Battery power ON/OFF button

After pressing and holding the red button for 5 seconds, if the LED does not light up, disconnect all the cables from the battery and measure the voltage at the battery terminals and check if the voltage reading ranges **between 44.8V and 58.1V**. (If required, switch on the battery by pressing the red button for 5 seconds).



Figure 7 Voltage at the battery terminals

### Battery Voltage – Troubleshooting with Internal Menu

Disconnect all the power cables from the battery and connect the communication cable from the battery to the inverter. Now navigate to **Main Menu** → Select **Settings** → Enter the **advanced password** (contact Sungrow service team) → Select **Debug Info** → Select **Aid Dsp Info** → Check the reading for ‘Tray\_vo11’ (Figure 8).



Figure 8 Internal menus for checking battery voltage

If the battery voltage is on the internal menu is within the acceptable voltage range (44.8V – 58.1V), check the battery information from the main menu-run info (Figure 9).

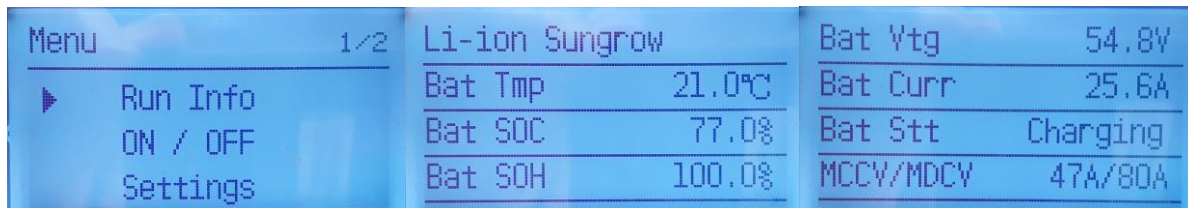


Figure 9 Run info – Battery information

Check the battery SOC (state of charge), SOH (state of health) and battery voltage.

To watch the installation tip for SBP4K8 battery, please click [here](#).