

How do I test my PLS2 is operating correctly?

If you want to check that your PL is displaying the correct external charge and load current readings from the PLS2, try these tips.

1. Check that the master PLS2 has the jumper setting on.
2. Note the rating of your current shunt.

Check that the 2 thin wires from the current shunt are screwed into the O terminal and the correspondingly correct terminal in the green terminal block at the PLS2, as shown in the following table:

TERMINAL	RATING	RESISTANCE (mΩ)
A	75mV/200A	0.375
B	50mV/100A	0.5
C	100mV/100A	1

3. Turn off all external charging sources (eg. generator and battery charger). Check that the LOAD screen shows 0A when there are no loads turned on.

Turn on a constant load (otherwise it will be hard to do this test).

Use a current clamp meter to measure the current through the shunt. If you do not have a clamp meter, you can use your multimeter but please be aware that most multimeters have a 10A maximum current rating.

If you cannot measure current with your multimeter, then it can be calculated. At the green terminal block on the PLS2, measure the voltage (mV) across O and A (if using the 75mV/200A shunt) with a multimeter. Using Ohm's Law, this milli-volts reading (mV) divided by the resistance of the shunt will give you the current through the shunt.

$$\text{Current (A)} = \frac{\text{voltage at green terminal (mV)}}{\text{shunt resistance (mΩ)}}$$

For example, if you are using the 75mV/200A shunt and measuring 1mV across O and A on the PLS2, you should be getting a LOAD current reading of 2.7A on the PL screen. If not, check the CHRG screen. If your LOAD current comes up in the CHRG screen, then your shunt is connected backwards. You need to swap the 2 wires around at the green terminal block of the PLS2.

The measured current should match the LOAD and the LEXT (load external current) readings on the PL, provided LINT (load internal) is zero. LINT = 0, if there are no loads connected directly to the PL's LOAD terminal. Please ensure that all external loads are going through your shunt. See typical installation diagrams available from the Plasmatronics website.

<http://www.plasmatronics.com.au/>