

**Steve's Tip 4**  
**Check Voltage on Your Hard-Wired Surge Guard Protection Device**

**Southwire recommends that if you are not qualified through training or experience, working on energized 120/240-volt electrical equipment can be dangerous. Please seek the assistance of a qualified technician.**



We frequently have owners of Surge Guard protection equipment devices, contact us with questions about their quality of electric power. Most times these questions arise from issues resulting when the Surge Guard device blocks power from entering their RV's or the diagnostic light pattern indicates a problem. The following discussion is a recommended procedure of what needs to be checked to ensure correct power supply.

**Tools Required:**

A multi meter capable of reading AC volts from 0 volts to 240 volts. You do not need the high-priced device for these tests.

**50 Amp Step by Step Procedure:**

1. Connect your RV power cord to the pedestal plug or your electric service box.
2. I prefer that voltages readings are taken on the terminal block on top of your Surge Guard device as shown in the picture above. There are 4 wires that are colors green, red, white and black from left to right. On top of every wire is the terminal screw. This is where you should take the voltages readings.
3. Using your multi meter probes, insert them on the terminal screws and record the voltage as follows:

L1	to	N	120 Volts
L1	to	G	120 Volts
L2	to	N	120 Volts
L2	to	G	120 Volts
N	to	G	0 Volts
L1	to	L2	240 Volts

If your readings are close to the readings in the above chart, the source of your power looks good!

If your readings deviate from the readings in the above chart, your source of electricity is bad. You should contact the owner of the electric supply and discuss. It is not recommended that an electrical supply that deviates from the above values be used in your RV.