MultiPlus-II/EasySolar-II/Quattro-II Current Sense socket issue

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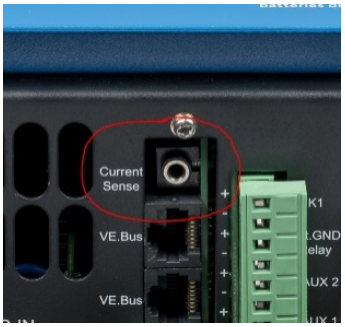
Summary and how to recognise



Some MultiPlus-II, EasySolar-II and Quattro-II inverter/chargers can have an issue with its AC input current measurement. Due to a contact issue in the Current Sense socket, the unit will read wrong values for the AC input current.

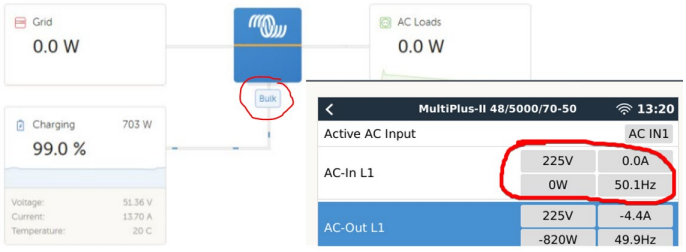
This affects the common use case: systems where such external current sensor is not installed.

The problem appears when AC (grid or generator) is connected to the AC-input. There is no problem showing when inverting.

Possible symptoms:

- Power Assist will not work correctly.
- During charge the AC current input limit is ignored.
- In an ESS system the unit will behave unpredictable, resulting in (high) power being randomly generated to or taken from the grid.

And lastly, in all above mentioned cases the real power from/to the grid will have no relation with the power displayed on the GX, VRM Portal, VictronConnect App or VEConfigure. The displayed power will likely (but not necessarily) stay at 0 W and 0 Amps.



Picture left showing incorrect data on (CC)GX and the VRM Dashboard.
Picture right showing 0.0W AC Loads and 63W consumed power from the grid. In reality a 600W load is connected.

Affected models & incidence

All MultiPlus-II, EasySolar-II and Quattro-II models, featuring such socket can be affected. The problem does not occur often, but is hard to recognise in case you are not aware of the possibility – while simple to solve. Note that we are still investigating the issue further, and will send more information when available.

Solution & cause details

To fix the contact, first switch the unit off and then briefly insert a 3.5mm jack plug (standard old style headphone plug) in the connector. Remove and re-insert the jack plug a few times to clear the issue. Finally, remove the jack plug and switch the unit back on. The problem is now resolved.

The background: in the socket, there is a mechanism that electrically connects the internal current sensor to the measurement circuitry. Inserting an external current sensor breaks that connection and makes it use the external current sensor instead. The problem is a bad contact when there is no external current sensor inserted.

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Appendix – step by step instructions

Step 1: turn the I-0-II switch, see lower right in below picture, to the ‘0’ (Off) position.

Step 2: open the black connection cover by unscrewing the two screws at the bottom.

Step 3: insert a 3,5mm jack plug (any 3.5mm jack plug will do, also when connected to a headphone), and remove it. Do this a few times. Then remove the plug.

Step 4: Turn the unit ‘On’ and check on your GX device and/or on the VRM dashboard to see if the AC-input current is showing the correct values.

Picture of the connections of the MultiPlus-II. Encircled the Current Sense socket.