

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

Tech note – December 2021 - rev 4

www.victronenergy.com

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.

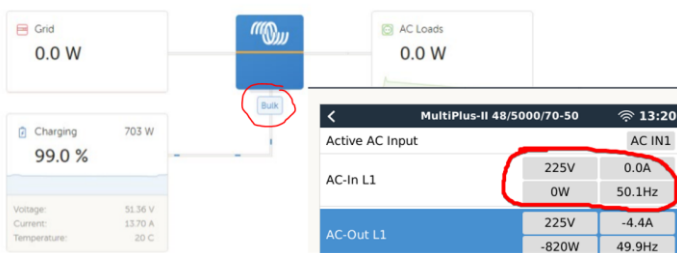
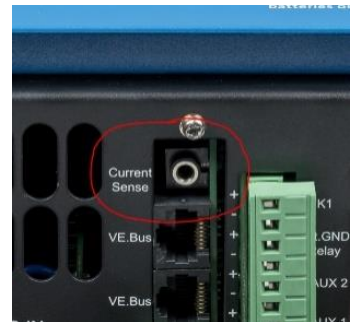
This affects the common use case: systems where such external current sensor is not installed.

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.



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.

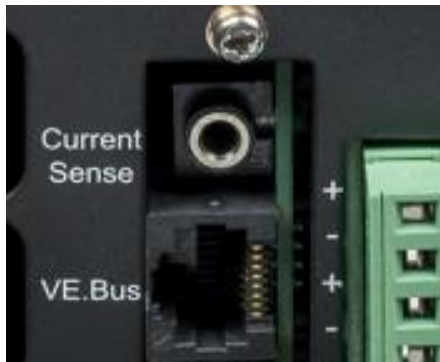
Continued on next page

Affected models & incidence

All MultiPlus-II, EasySolar-II and Quattro-II models, featuring the audio jack type socket as shown on picture on upper right of this document, 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.

On newer models, the audio-jack socket used as a connector has in newer models been replaced by a 3-way standard connector with a wire bridge.

3.5mm audio jack (OLD - affected)



3-pin connector (NEW – not affected)



This table shows per which serial numbers the product has the new Current Sense connector:

Part number	Model	Implemented serial nrs ⁽¹⁾
PMP122305010	MultiPlus-II 12/3000/120-32 230V	Onwards from HQ2237
PMP122305100	MultiPlus-II 12/3000/120-50 2x120V	NOT, replaced by PMP122305102
PMP122305102	MultiPlus-II 12/3000/120-50 2x120V (UL)	Onwards from HQ2227
PMP122305110	MultiPlus-II 12/3000/120-50 120V	NOT, replaced by PMP122305120
PMP122305120	MultiPlus-II 12/3000/120-50 120V	Yet to be produced expected HQ23xx
PMP242305010	MultiPlus-II 24/3000/70-32 230V	Onwards from HQ2222
PMP242305100	MultiPlus-II 24/3000/70-50 120V	Onwards from HQ2232
PMP242305130	MultiPlus-II 24/3000/70-50 2x120V	Onwards from HQ2231
PMP242306000	MultiPlus-II 24/3000/70-32 230V GX	Onwards from HQ2231
PMP242307010	EasySolar-II 24/3000/70-32 MPPT 250/70 GX	Onwards from HQ2231
PMP242505010	MultiPlus-II 24/5000/120-50 230V	Onwards from HQ2222
PMP482305010	MultiPlus-II 48/3000/35-32 230V	Onwards from HQ2215
PMP482305100	MultiPlus-II 48/3000/35-50 120V	Onwards from HQ2247
PMP482306000	MultiPlus-II 48/3000/35-32 230V GX	Onwards from HQ2216
PMP482307010	EasySolar-II 48/3000/35-32 MPPT 250/70 GX	Onwards from HQ2229
PMP482505010	MultiPlus-II 48/5000/70-50 230V	Onwards from HQ2225
PMP482506000	MultiPlus-II 48/5000/70-50 230V GX	Onwards from HQ2231
PMP482507010	EasySolar-II 48/5000/70-50 MPPT 250/100 GX	Onwards from HQ2230
PMP482805000	MultiPlus-II 48/8000/110-100/100 230V	Onwards from HQ2232
PMP483105000	MultiPlus-II 48/10000/140-100/100 230V	Onwards from HQ2229
PMP483150000	MultiPlus-II 48/15000/200-100/100 230V	All

(1) Format of the serial number is HQyywwzzzzz in which yy is the year, ww is the week number, and zzzzz is random. The serial number (SN) can be found on the label on the enclosure, on the label on the carton and in the VictronConnect App.

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.

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.