

Nexus Solar Controller

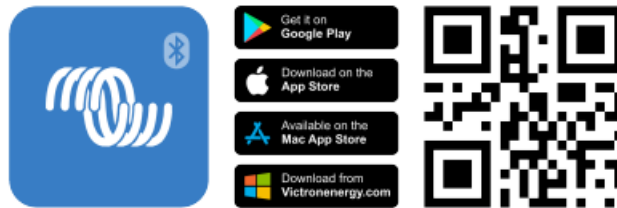
Troubleshooting Guide

Version	Date	Author	Comments
1	24/02/2026	Adam Mayes	First release

1. Victron Connect App

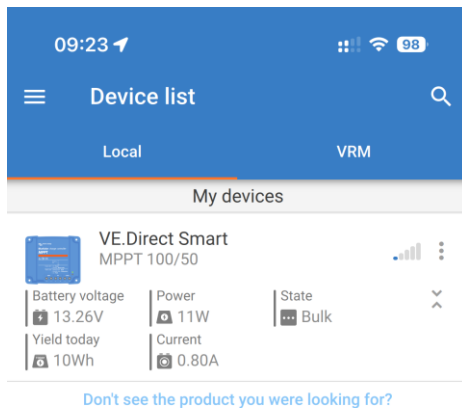
Firstly, download the Victron Connect App to connect to the solar controller. The app is available for the following platforms:

- Android.
- Apple iOS, note that USB is not supported, it is only possible to connect via Bluetooth.
- MacOS.
- Windows, note that Bluetooth is not supported, it is only possible to connect via USB.



2. Does the device have power?

Connect to the Victron Connect App and search to see if the controller is visible. If the controller is visible, the device has power.



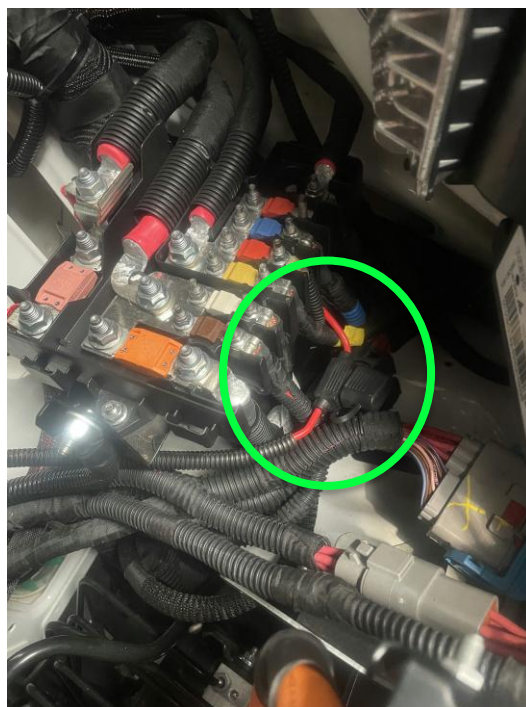
Disconnect the Solar input to the box and see if the device still has power. If the device turns off, this indicates that the controller is running off Solar Power only,

If the device does not show on the App initially, first open the box and see if there are lights visible on the Victron Controller.

If no lights are visible, or the controller was running off Solar only, use a multimeter on the Victron Battery Input Terminals (with Solar disconnected) to see if there is any voltage getting to the Terminals.

If there is no voltage at the terminals then we must check the fuses and connections in the following places:

- Check that the Battery connection points are secure for both the Positive and Ground.
- Remove the Fuse from the Fuse Holders and ensure these are not broken (Green Ring)



- Check that there is no damage to or debris in the Battery Connector on the Box. You can also check with a multimeter that there is voltage on the pins coming from the Battery connection to the Connector block.



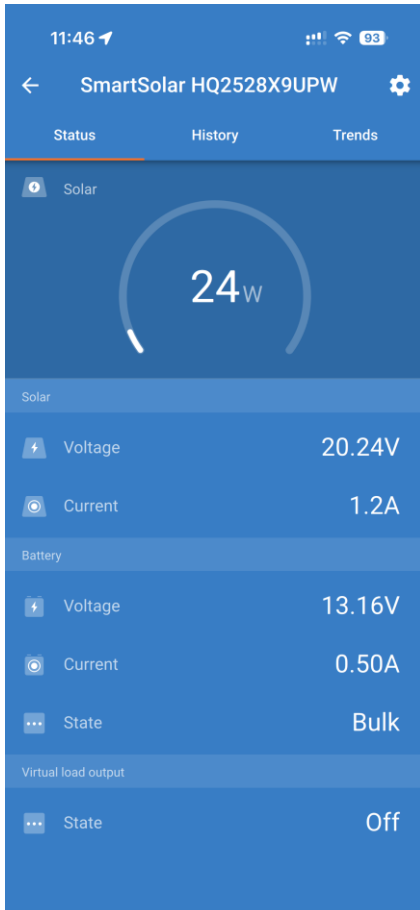
- The final fuse to check is in the Victron controller



If all the above steps have passed the checks, then there may be a fault with the Controller itself and it may need replacing.

3. Is the system providing solar?

Using the Victron Connect app and with the vehicle placed outside in direct daylight, we can review the data to understand if the Solar solution is operating correctly.



Solar Power – This is the output power from the panels to the batteries and indicates the solution is working.

Solar Voltage – This is voltage output of the solar mat and must be 5V above the Battery Voltage to allow the system to activate.

Solar Current– This is current output of the solar mat and multiplied with the mat voltage gives you your Power output to the batteries.

Battery Voltage– This is voltage of the batteries which will rise with solar charging or when the engine is on.

Battery Current – This is current being fed to the batteries from the solar controller.

Battery State – This is the mode of the charging algorithm which moves from Bulk when at full charge, Absorption when >80% charged and Float when fully charged. The system also goes into External Control when the Nexus Solar Priority Algorithm is active, providing solar when the engine is running.



Solar Voltage – A voltage of 0.01V indicates an issue with the Solar Connection. This could be:

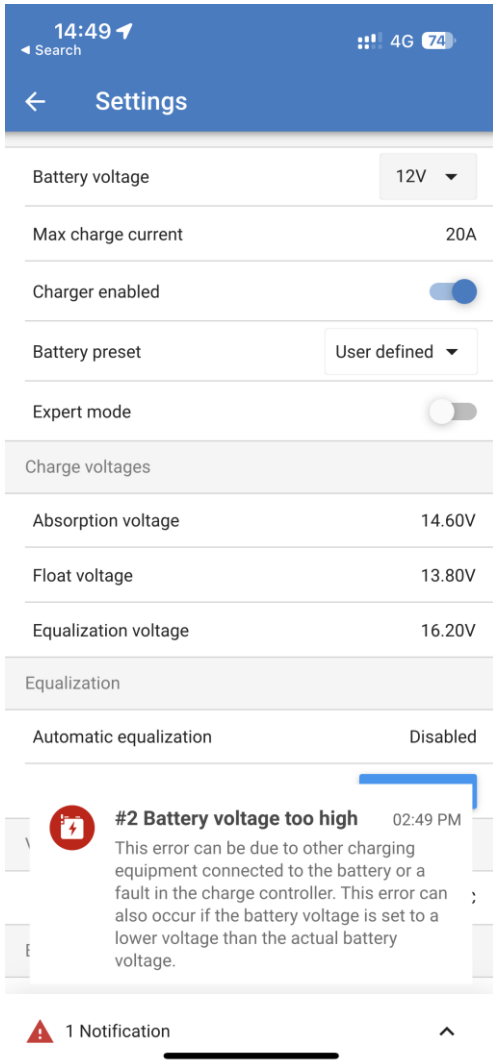
- Connectors not connected
- Break in the cable
- Connected in reverse polarity
- Solar mat is faulty

If this happens, first check all connections are secure and tight from the box up to the mat.

If there is still no voltage, use a multimeter to check if there is voltage at the connectors which attach to the box. This would mean there is an issue with connections in the box which should be checked.

If no voltage at the box connections, check the voltage direct from the mat connectors.

If there is no voltage at the mat connectors, then there is likely to be an issue with the mat itself.



Battery Voltage Error – If the solar was connected first before the solar, the battery voltage setting can sometimes be automatically set wrong.

This will typically set the controller to 12V when the system may be a 24V system.

To fix this:

- Click the Cog in top right
- Go to Battery
- Click the 12V Battery voltage drop down and select the correct Battery Voltage.

This should reset the controller to the correct operating voltage.