

Checklist – Error 514 (Energy Meter)

Disclaimer

The material in this document has been prepared by Sungrow Australia Group Pty. Ltd. ABN 76 168 258 679 and is intended as a guideline to assist solar installers for troubleshooting. It is not a statement or advice on any of the Electrical or Solar Industry standards or guidelines. Please observe all OH&S regulations when working on Sungrow equipment.

Error 514 indicates that there is a communication fault between the energy meter and inverter.

Please use the following checklist (Diagrams on next page):

Test	Yes/No
Has the Supplied cable been used?	
If no, has ‘Shielded Twisted Pair’ cable been used (Cat 5 and 6 may not give reliable results)?	
Have the correct Pinouts been used (See diagrams next page)?	
For Hybrids, if the cable is longer than 50m, has the 120 Ohm DIP switch been switched to the ‘ON’ position?	
For Crystal and 3-phase series, Has the Export Limit been set (requires meter to be connected)?	
S100 – Is the yellow LED pulsing?	
Try power cycling the meter (OFF then ON)	

Wiring of S100 energy meter to SH5K** Hybrid inverters:

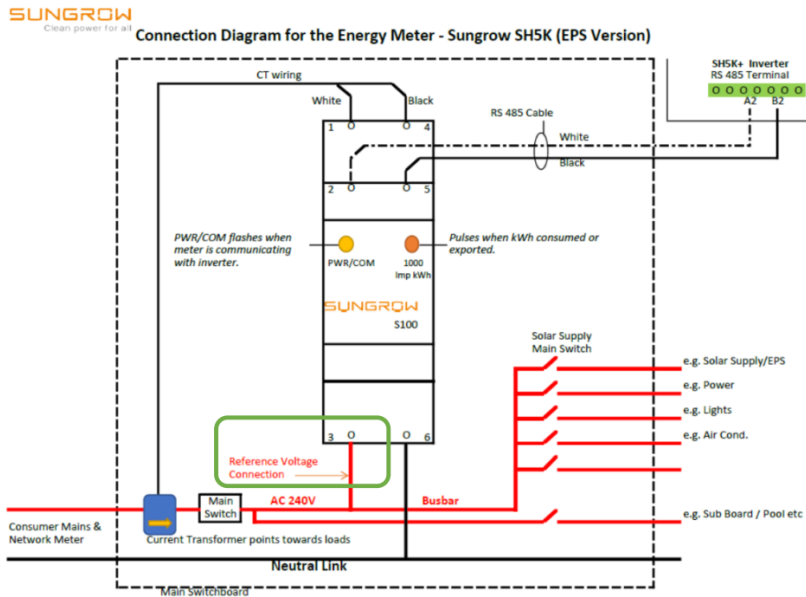
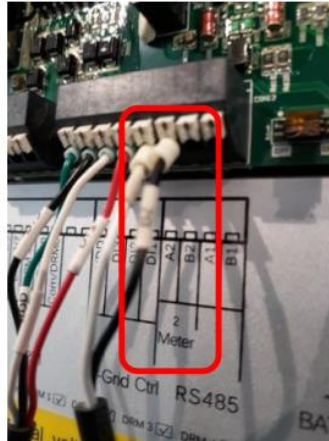


Diagram 1 – Energy Meter schematic



Pictures 1 & 2 – S100 connections to Hybrid inverter. White = A and Black = B

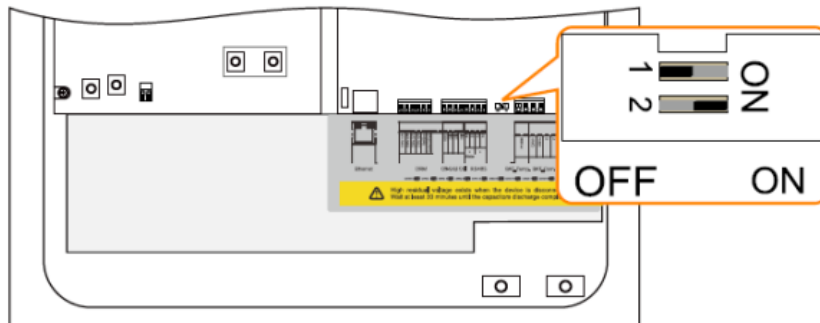
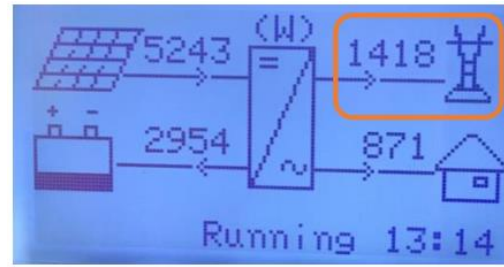


Diagram 2 – 120 Ohm DIP switch



Pictures 2 & 3 – Meter not connected, and connected (Hybrid)

Pinouts for RJ45 connectors:

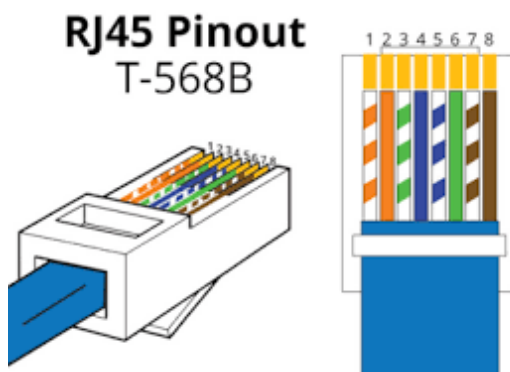


Diagram 3 – RJ45 plug (T569B)

Single phase Crystal series:

- Pin 8 (Brown) = RS485A+
- Pin 6 (Green) = RS485B-

3-Phase Inverters:

- Pin 6 (Green) = RS485A+
- Pin 3 (White/Green) = RS485B-

If the above checks do not resolve the problem, the installer may either:

- Lodge a warranty claim for the replacement (Sungrow may process as a conditional replacement*), or
- Lodge a warranty claim to request an Approved Sungrow Service Partner attend site* (actual service costs will be charged if it is not faulty).

***Subject to Sungrow's Warranty terms and conditions**