

## Error 514 and 084 S100 Meter Communication Issues

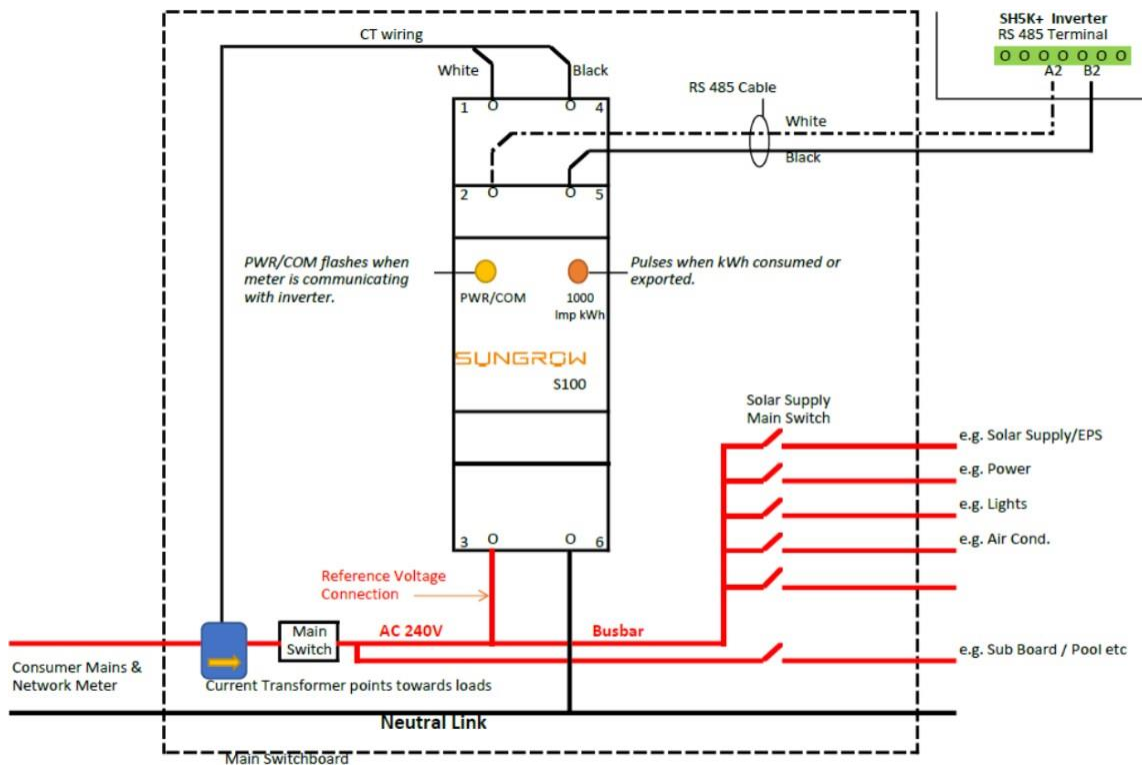
### Disclaimer

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.

The S100 Energy Meter is a vital component of the Sungrow Hybrid inverter system. This document uses an SH5K-20 inverter as an example for explanation.

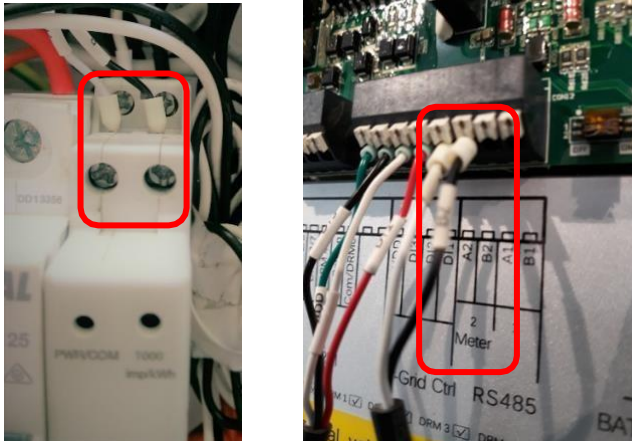
It tells the inverter when to charge or discharge the battery, when to go into off-grid mode, Export Control, and when to use AC to charge the battery. It is therefore vital that it is connected properly. **It must be on the same phase as the inverter.**

### Connection Diagram for the Energy Meter - Sungrow SH5K-20:



**Error 514 is incorrect meter communication connection, which indicates the communication cable does not connect to the inverter properly.**

Connect the white (A) to terminal 2 and the black (B) to terminal 5 on the Energy meter. **Connect white to A2 and black to B2 to the 'Meter' / RS485 terminals in the inverter.** (If using different color code, ensure A-A2 and B-B2)



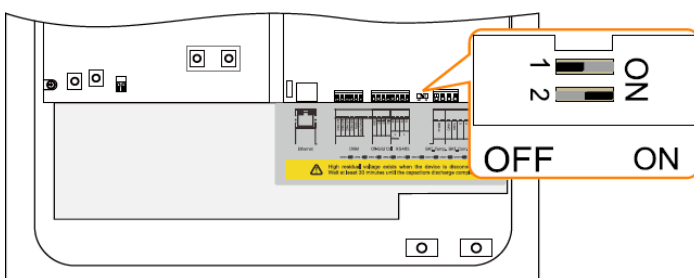
If the AC and Data wiring is correct and the meter is communicating with the inverter, the **Yellow LED PWR/COM** on the meter will flash (The 1000 Imp/kWh pulse is the counter for kWh).

If the cable run is longer than the supplied RS485 cable, Sungrow recommends you use Shielded Twisted pair (RS485) cable only.



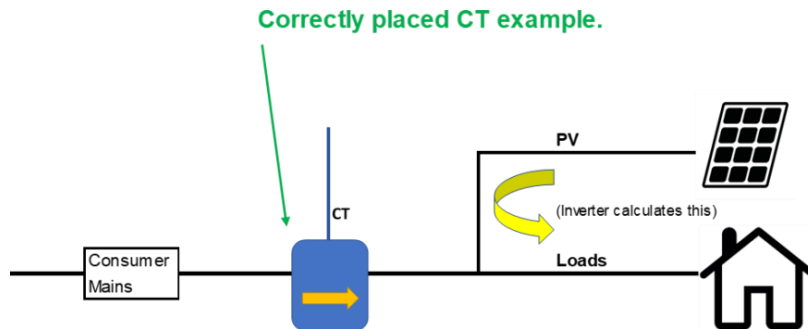
Example RS485 cable

*Note: If the RS 485 cable is over 50m, set the 120 Ohm terminator switch to the 'ON' position.*



Error 084 is the reverse sensor connection caused the communication error, which can be caused by:

- **Not setting the existing system if there is another inverter, or**
- **If the CT clamping is not pointing away from the grid to the inverter and to loads that are on the same phase as the inverter.**

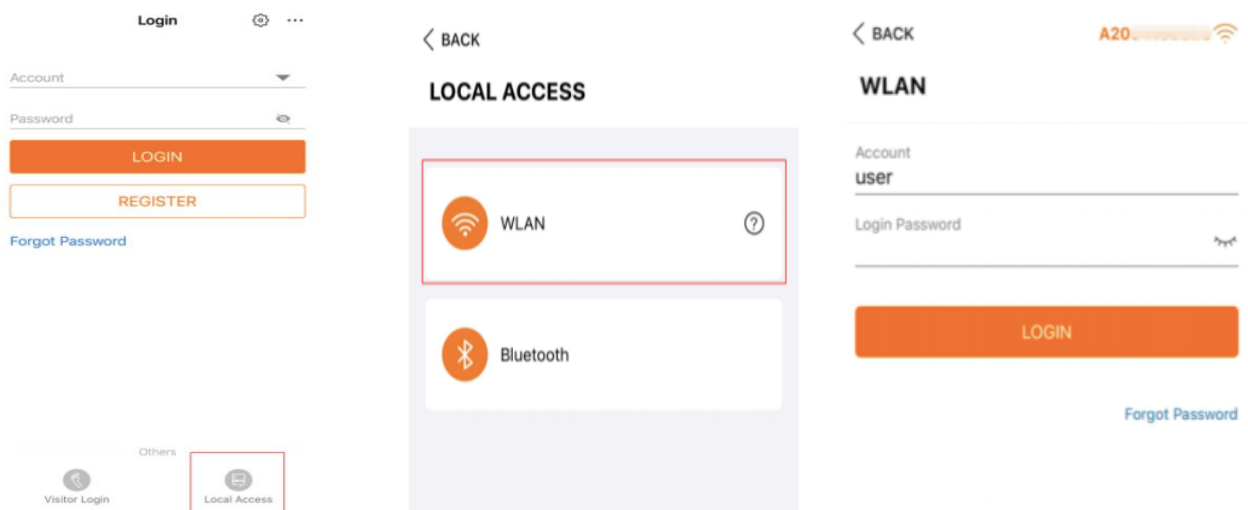


To change the settings please follow any of the methods below:

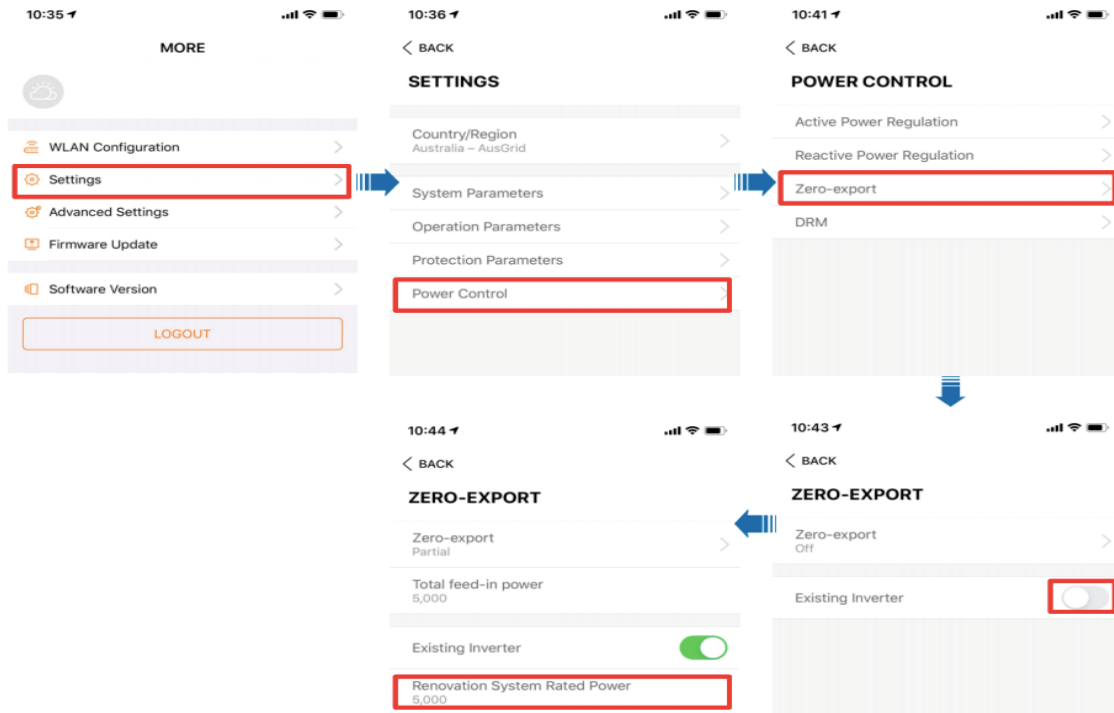
**Method 1 (from local access):**

Connect to SG-XXXXXXXXX signal of the inverter (Password required – Wi-Fi dongle’s serial number). Then open the ‘isolarCloud’ app and follow the steps as below:

Local Access can be found on the “Login Page” of the app.

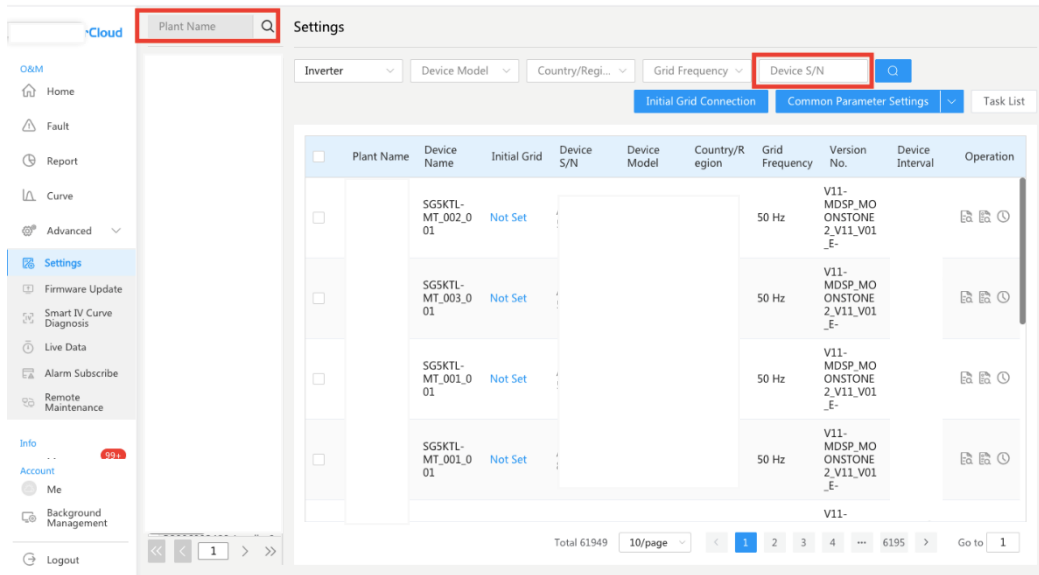


Access the inverter through Local Access ->WLAN -> Login inverter with the account “admin” and password “pw8888”->Click ‘More’ -> Go to “Settings” -> “Power Control” -> “Zero-export”-> Turn on “Existing Inverter” -> Put the existing inverter rated power in “Renovation System Rated Power (kW)”.

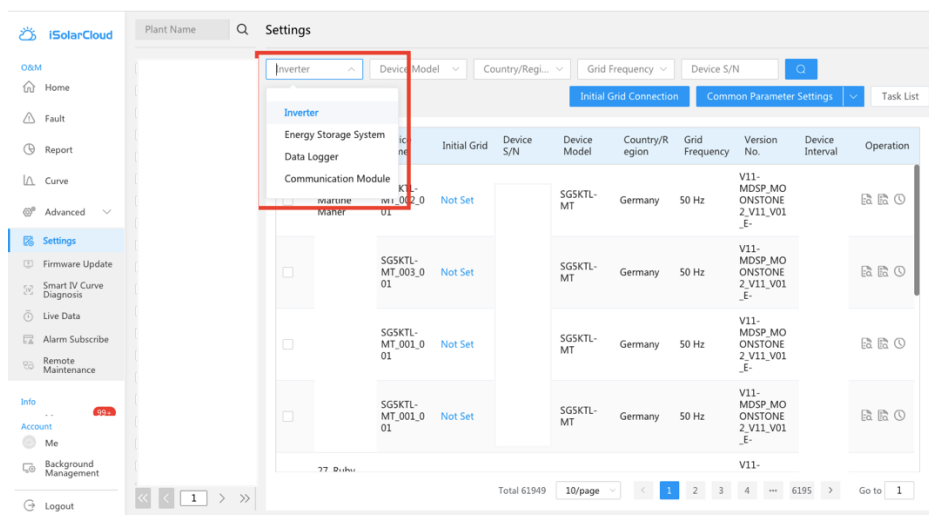


**Method 2 (remotely from isolarCloud account):**

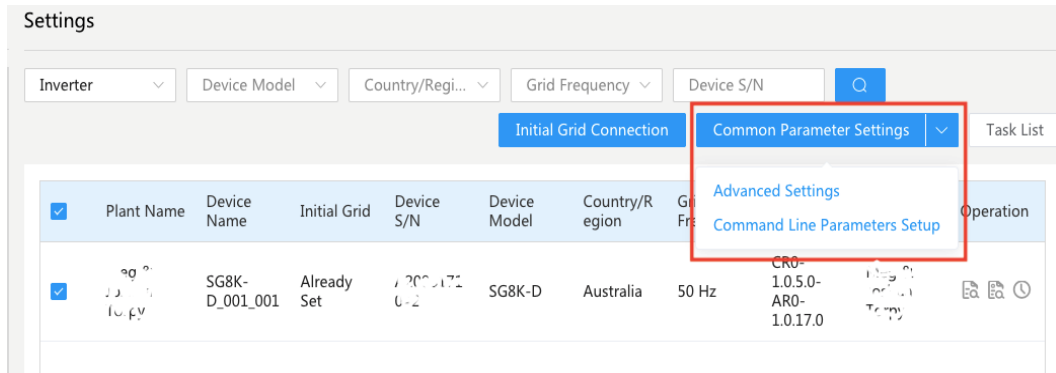
Go to **'Advanced'** -> **'Settings'**. Search for the system by plant name or inverter serial number.



Select **'Energy Storage System'** if it is a hybrid inverter.



Go to 'Advanced settings' -> 'Power Control' -> 'Existing Inverter'.



Turn on 'Existing inverter'. Put the rated output power of the existing inverter in the box below.

**Advanced Settings** ×

Protection Parameters Power Control Inverter Parameter Query

| No. | Parameter Name                | Latest Value | Numerical Term       | Coefficient | Unit | Remarks        |
|-----|-------------------------------|--------------|----------------------|-------------|------|----------------|
| 1   | Active Power Limit Ratio      |              | <input type="text"/> | 0.1         | %    | 0~100<br>0~110 |
| 2   | Zero-export                   |              | Please Select        | --          | --   | --             |
| 3   | Existing Inverter             |              | On                   | --          | --   | --             |
| 3-1 | Renovation System Rated Power |              | <input type="text"/> | 1           | W    | --             |

[Apply Settings](#)

If there is any issue related to meter communication, please follow above procedures and contact Sungrow Service Department on 1800 786 476.