

## Meter Reverse Reading on Logger1000

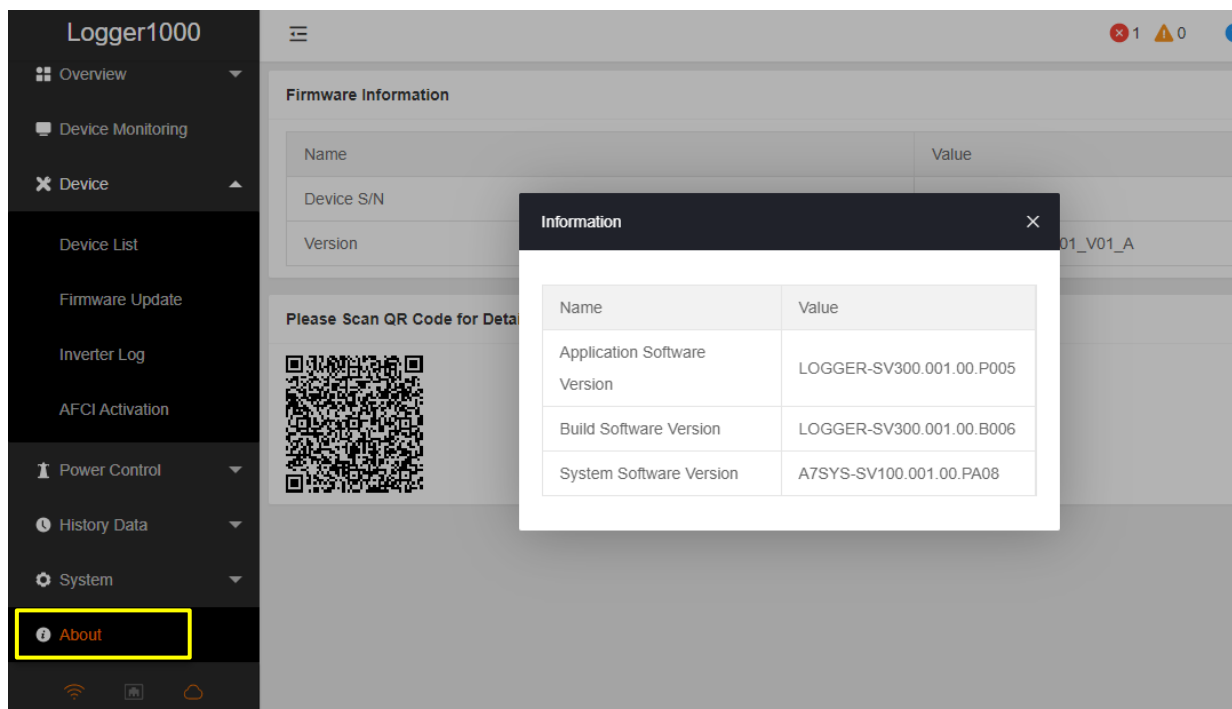
### Disclaimer

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.

Since more three phase inverter installations apply the logger1000, we get the CT reading issue more frequently than before. The latest firmware released for the logger1000 has the function to enable the meter reverse connection, which means the meter read still can be adjust via the remote settings even the CT physical installation is reversed. **The following is a useful fix 'only' in the cases only where 'all three' of the CT's are reversed.**

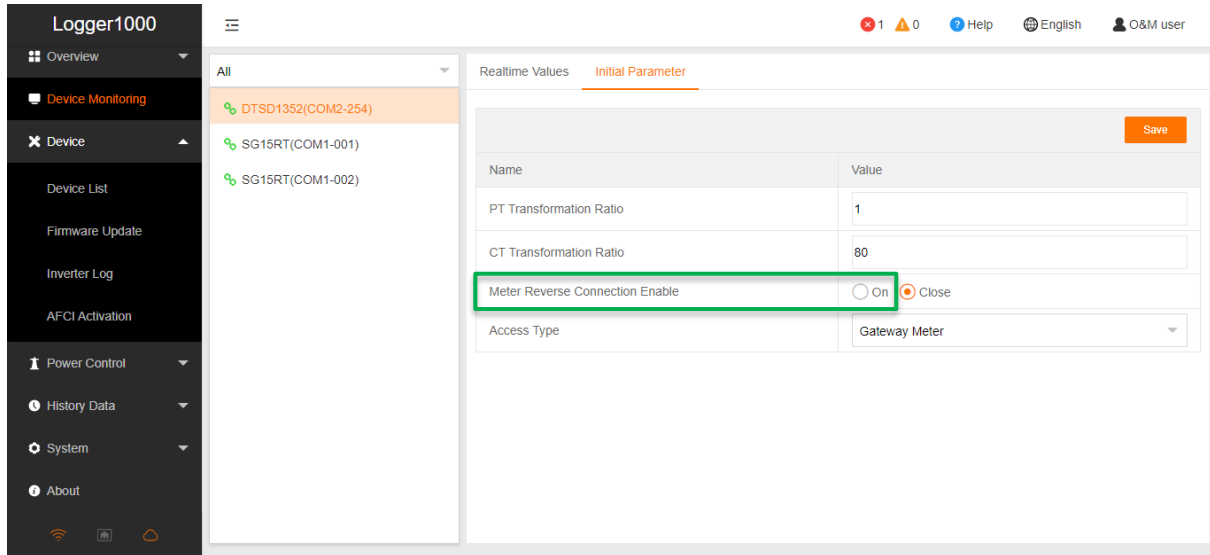
### Meter reverse connection function

Select About and click the logger1000 firmware version five times to check if the version is the one shown as the following figure. The firmware version should be at least P005B006 or above



Picture 1 – Screenshot of 'About'

Once the logger1000 has the firmware version above, select **Device Monitoring**-> select meter -> **Initial Parameter**-> **Meter reverse connection Enable**->**On**. Then the meter reading will be correct even the CT direction is reversed onsite.



Picture 2 – Reversing the CT polarity (will reverse all)

## How to define the meter wrong installation

Regarding the grid power, positive numbers indicate the power is taken from the grid and the negative numbers indicate that power is fed to the grid.

You can turn off the DC first, then you can check the active power for each phase. Since there is no DC power, the meter should detect the power from the grid to the load, which means the meter active meter should be the **positive**. If the active reading is negative, it means the CT is reversed or installed on the wrong phase.

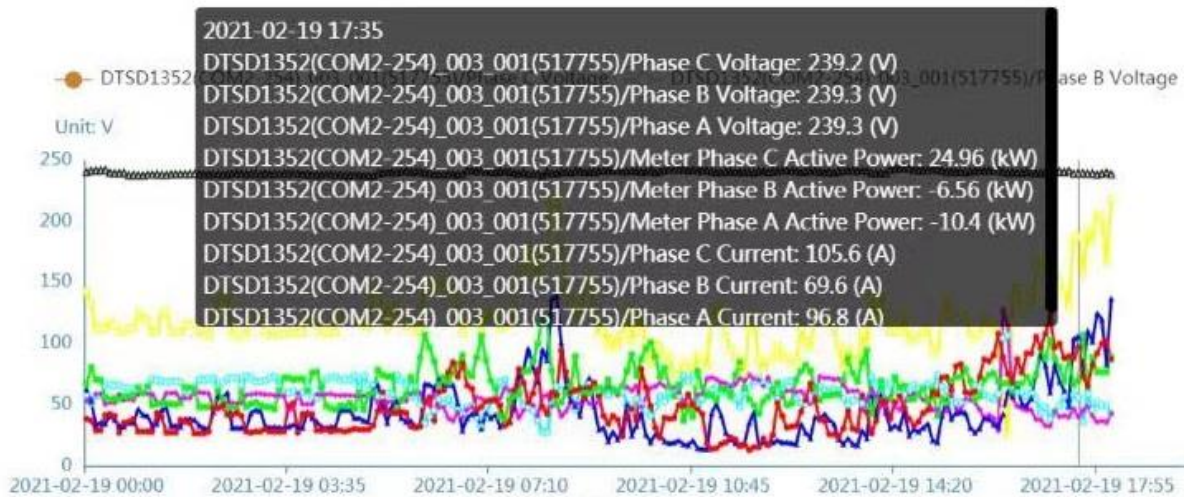
The screenshot shows the 'Realttime Values' section of the Logger1000 interface. A table displays the following data:

Parameter Name	Current Value (Unit)
Phase A Current	80.800 A
Phase B Current	97.600 A
Phase C Current	84.000 A
Phase A Active Power	-8.000 kW
Phase B Active Power	-9.920 kW
Phase C Active Power	20.320 kW

Picture 3 – Loads incorrectly showing as export

**CT phasing:**

Meanwhile, you can use the iSolarCloud **Curve** function to get the flow chart for each phase reading. Take the following picture as an example.



Picture 4 – Data from the “Curve” section of iSolarCloud

According to the voltage and current from the flow chart, we can get the active power for each phase, respectively.

$$PA = UA \times IA = 239.3 \times 96.8 = 23.1KW$$

$$PB = UB \times IB = 239.3 \times 69.6 = 16.6KW$$

$$PC = UC \times IC = 239.2 \times 105.6 = 25.2KW$$

But we can see the real active power displayed on iSolarCloud is

-10.4KW,

-6.56KW,

24.96KW for phase A, B, C.

The incorrect number on phases A and B means the CT’s are reversed phase. We need to swap the CT on both phases.

If the issue persists after following above procedures, please take photos testing on site and contact Sungrow Service Department on 1800 786 476 or email to [service@sungrowpower.com.au](mailto:service@sungrowpower.com.au), Monday- Friday 9am - 5pm (AEDT).