Installation manual

Orsis S2-M single-phase meter & module

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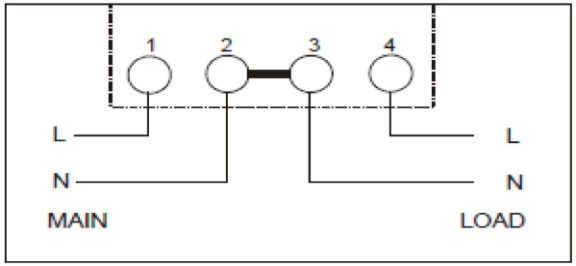
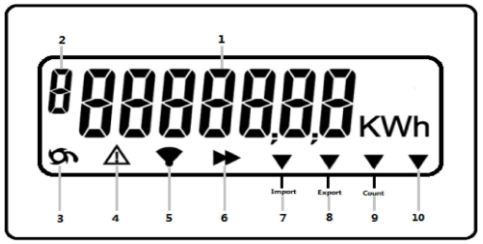
S2-M Meter connection diagram



Display indicators

No.	Display in LCD	Indicator
1	8888.8.8	Number display
2	8	Display page
3		Reverse Run Indicator
4		Error/Alarm
5		Wireless Communications available
6		On optical communications
7	Import	Energy flow – Import
8	Export	Energy flow – Export
9	Count	Counter
10		On wireless communications

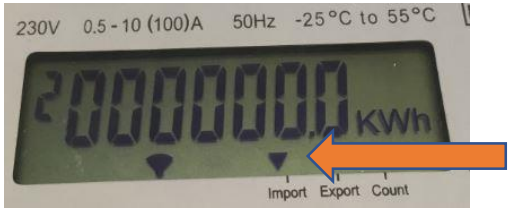
Display index screens



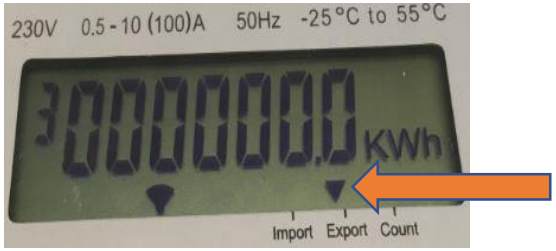
This identification is marked on the nameplate. Typical display sequences and a list of displayable data.

There are 4 main display screens that the meter will automatically scroll through during the display cycle and are as follows:

1. This is a segment test display to make sure all segments of the display are working



2. Cumulative import (kWh) - this is the total generation/consumption that has been recorded by the meter. This display is indicated with a small arrow at the bottom of the screen pointing to import



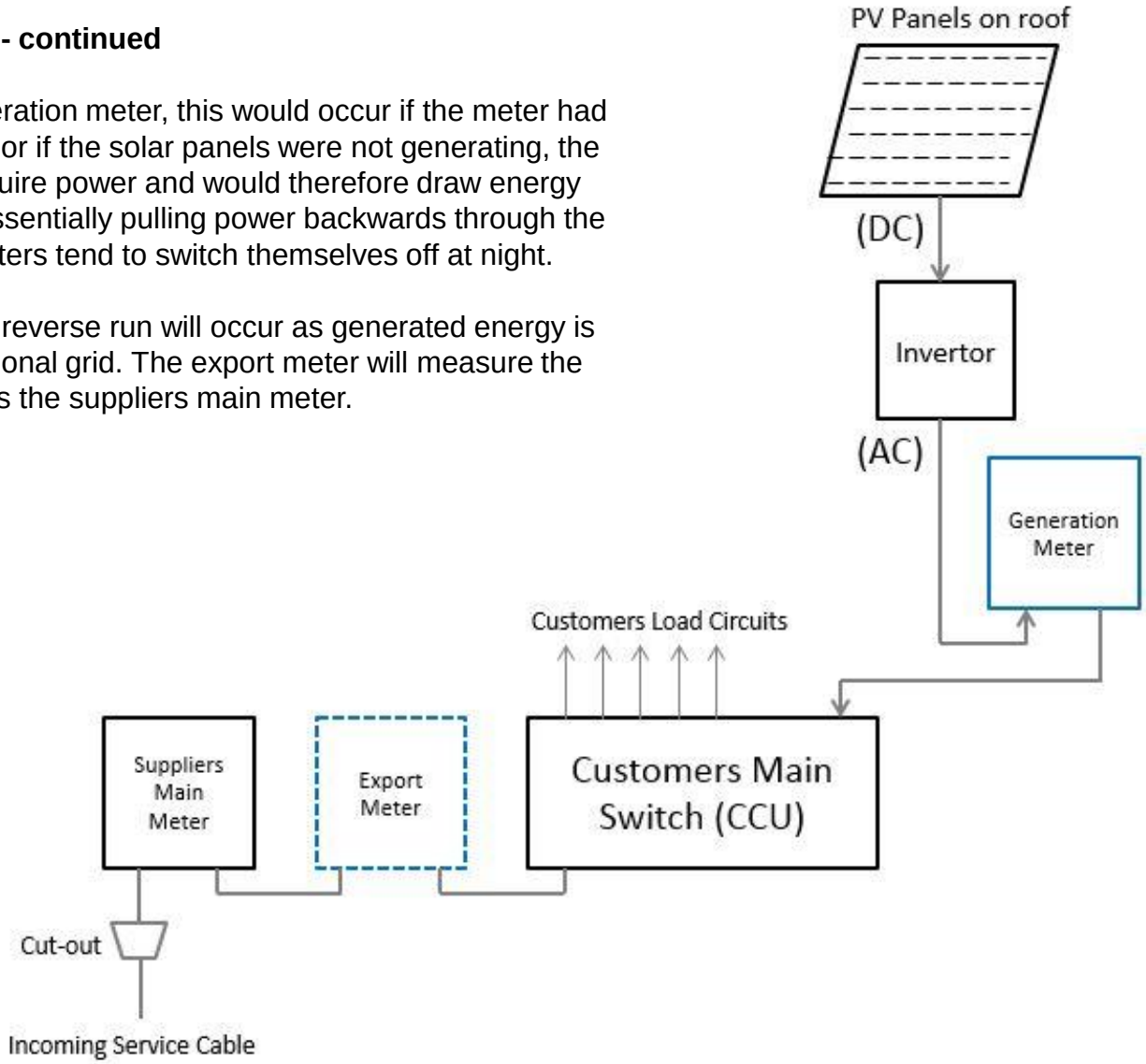
3. Cumulative export (kWh) - this is the total export that has been recorded by the meter. This display is indicated with a small arrow at the bottom of the screen pointing to export

4.This is a reverse run count for current - this counts the number of times that the meter has had current flowing backwards through it

Display Index Screens - continued

In the example of a generation meter, this would occur if the meter had been wired back to front or if the solar panels were not generating, the inverter(s) would still require power and would therefore draw energy from the national grid (essentially pulling power backwards through the meter). This is why inverters tend to switch themselves off at night.

For an export meter, the reverse run will occur as generated energy is exported back to the national grid. The export meter will measure the same imported energy as the suppliers main meter.



Orsis communications module

LED Description

There are three LEDs defined as power (PWR), registration status (REG) and error indication (ERR) from left to right on the front of the module as shown below.

LED	Status Description	LED Status
PWR	Normal system power supply	Always On
REG	Registered	Always On
	Not Registered	Always Off
ERR	Flashing errors	See next section for detail definition list

LED Error Definition List

Flashing Sequence	Error
Always Off	Registered
1 Flash	SIM card requires changing
2 Flashes	Meter not connected to module
4 Flashes	External Flash Read-Write Error
5 Flashes	GSM Module not started
6 Flashes	GSM Module serial communication error
7 Flashes	External EEPROM Read-Write error
8 Flashes	Meter Connection Error (Failure to get correct data)
9 Flashes	GSM Module Initialisation Failure
10 Flashes	Dialling Failure
11 Flashes	Exceptional Socket Interruption
12 Flashes	Load balance log in error
13 Flashes	Communication sever log in failure
14 Flashes	Registration Failure

Meter Commissioning Phase

If the meter is being used for remote monitoring, it is essential that the commissioning engineer contacts the Orsis support team to confirm the communications paths are operational between meter and module via GPRS **BEFORE** leaving site.

The metering system will not be deemed operational until Orsis support staff confirm all communications are connected.

Please call Orsis support team on 01423 537088 to check and confirm the connection.

How to change the SIM card in an Orsis S2-M module

Isolate

Ensure that the power to the meter is switched OFF.

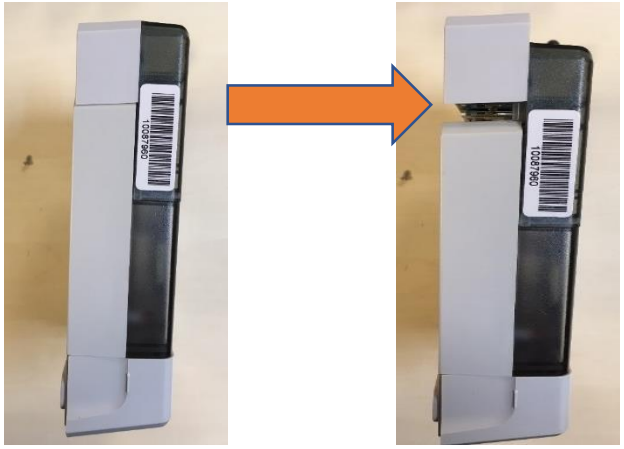
PLEASE DO NOT REMOVE THE MODULE FROM THE METER – THIS WILL VOID ANY WARRANTY AND MAY CAUSE DAMAGE TO THE MODULE.

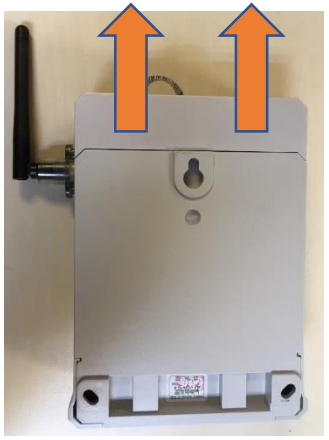
Open the SIM card cover

On the top edge of the module, there should be a barcode sticker with the SIM card number on.

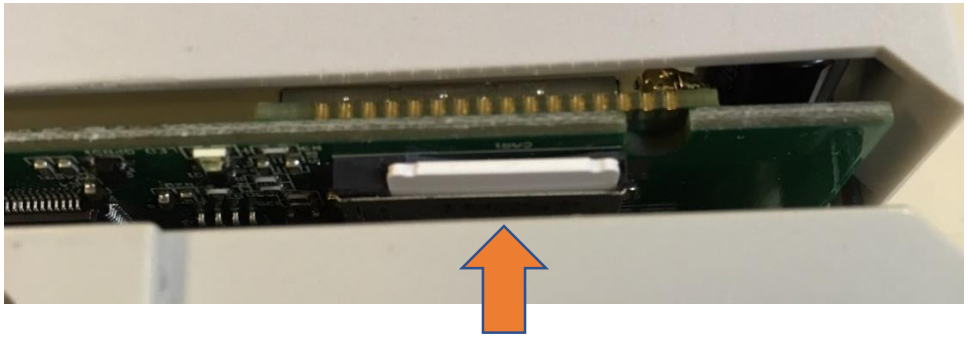
Peel back that sticker, and remove the small screw underneath.

Slide the grey plastic cover up to reveal the SIM card on the right hand side.

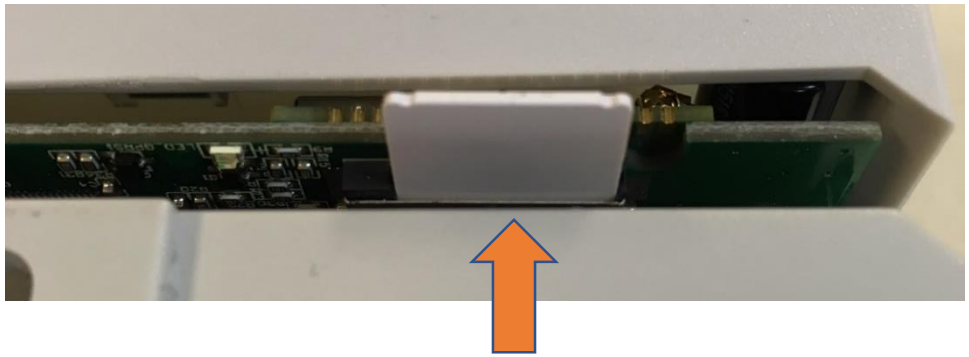




Remove the SIM card

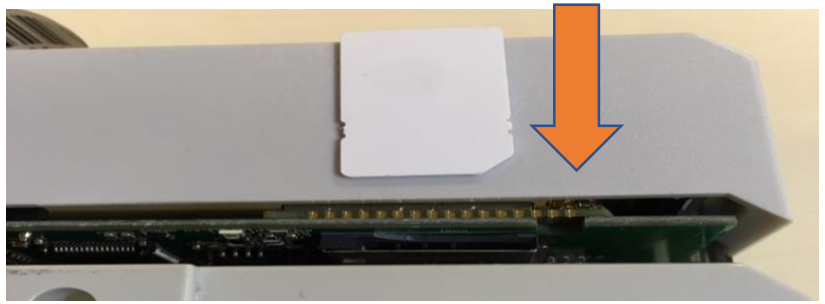


Press the SIM card inwards and it should spring back out of the cradle and can then be removed.

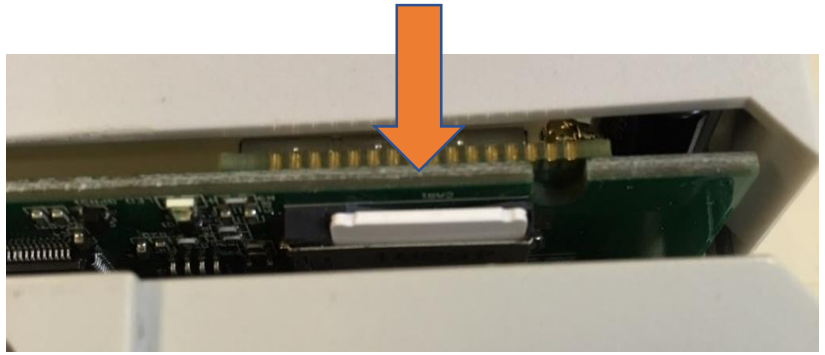


Insert the new SIM card

The new SIM card goes in this way

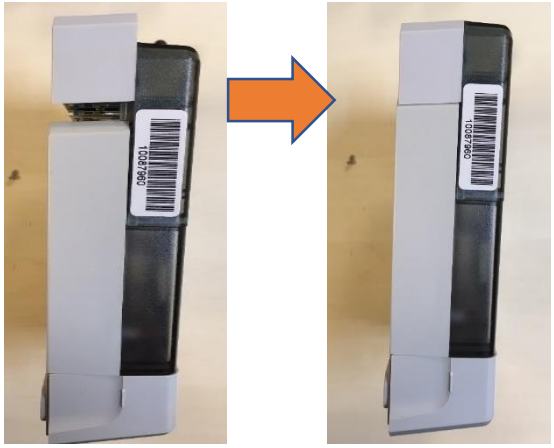


Press the new SIM card inwards and it should click and ‘lock’ in place.



Close the SIM card cover

Slide the grey plastic cover back down to close the module.



Refit the small screw and tighten to lock the cover in place. **DO NOT OVER TIGHTEN**.

Stick the barcode sticker back down to cover the screw

Power up the meter

Power up the meter, once there are 2 green LEDs lit, this meter and module have successfully connected.

Please call Orsis support team on 01423 537088 to check and confirm connection.