SOLAR RELAY

INVERTER CONTROL
with
FRONIUS PRIMO / GEN 24

CATCH Power
A trademark of Project H Pty Ltd
180 Dumaresq Street
Glen Innes
NSW 2370
Australia
Ph: +64 2 5700 5717
W: www.Catchpower.com.au
E: sales@catchpower.com.au

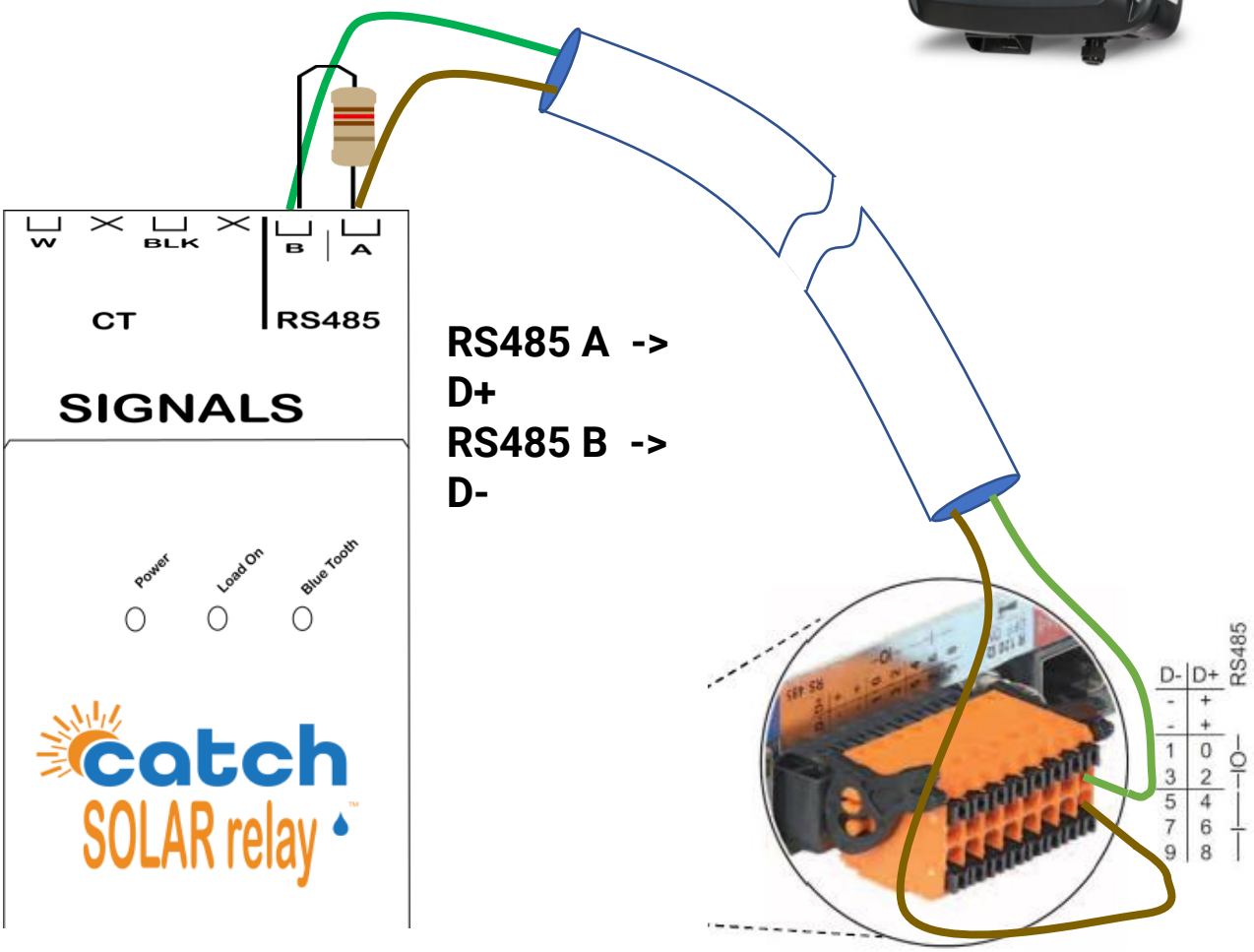
IMPORTANT

This guide discusses the specific wiring and configuration need to implement inverter control. Ensure the installation guide for both products is also followed.

Wiring Instructions – FRONIUS PRIMO

Ensure the data cable is rated for the voltages it will be in close proximity to.
A 120 Ohm terminating resistor may be required at the CATCH Relay terminals as shown in the diagram below if the cable run is longer than 10m.

Connect the RS485 Cable to the Fronius Data Manager 2 as shown.



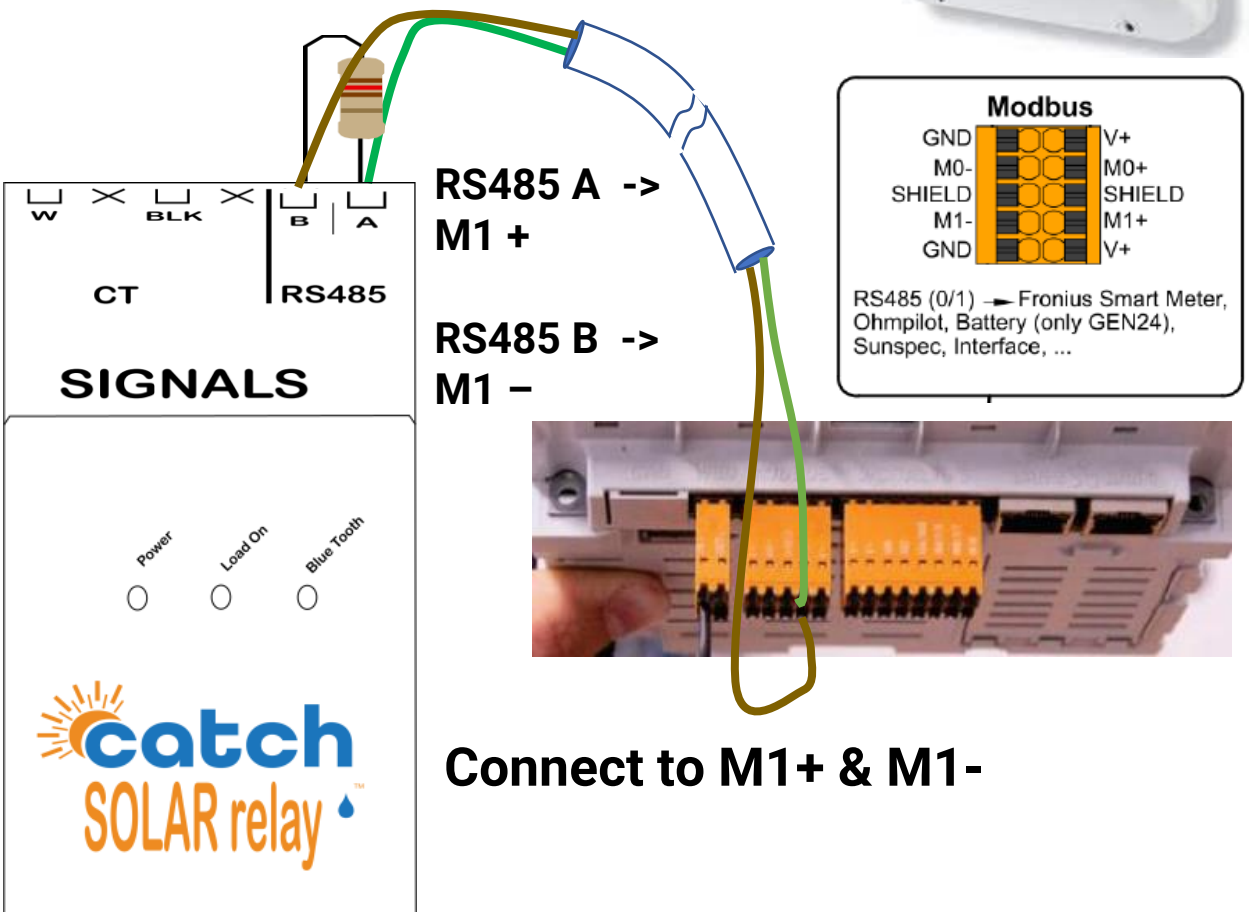
IMPORTANT

This guide discusses the specific wiring and configuration need to implement inverter control. Ensure the installation guide for both products is also followed.

Wiring Instructions – FRONIUS GEN 24

Ensure the data cable is rated for the voltages it will be in close proximity to.
A 120 Ohm terminating resistor may be required at the CATCH Relay terminals as shown in the diagram below if the cable run is longer than 10m.

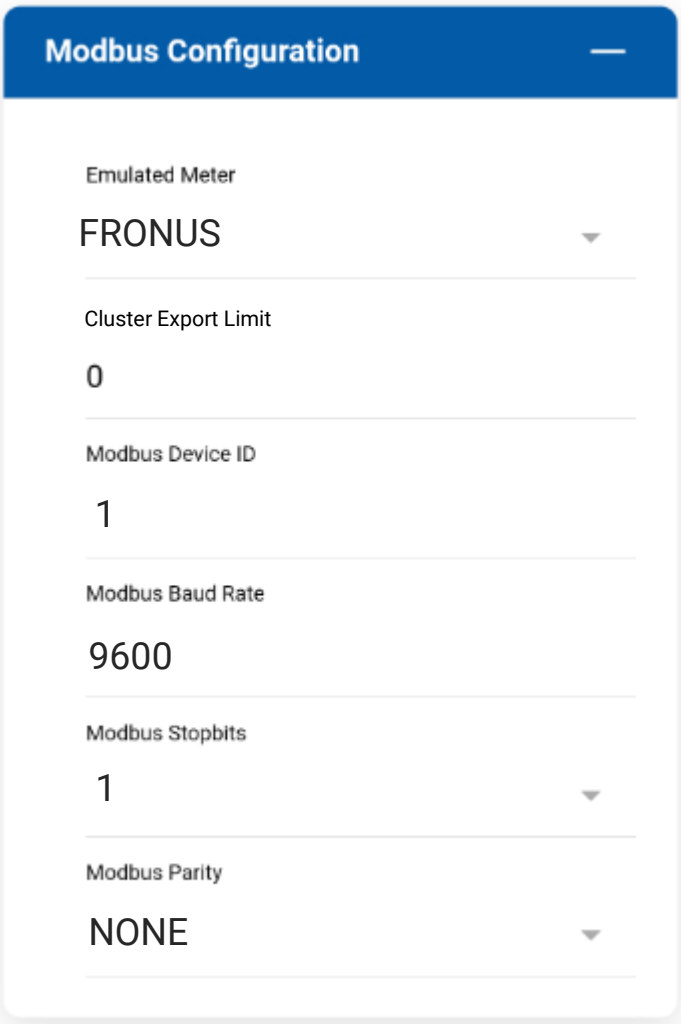
Connect the RS485 Cable to the Fronius Data Manager 2 as shown.



SOLAR RELAY Setup

Navigate to the Configuration screen and expand the Modbus Configuration section.
Fill it out using the details below.

Save your changes.

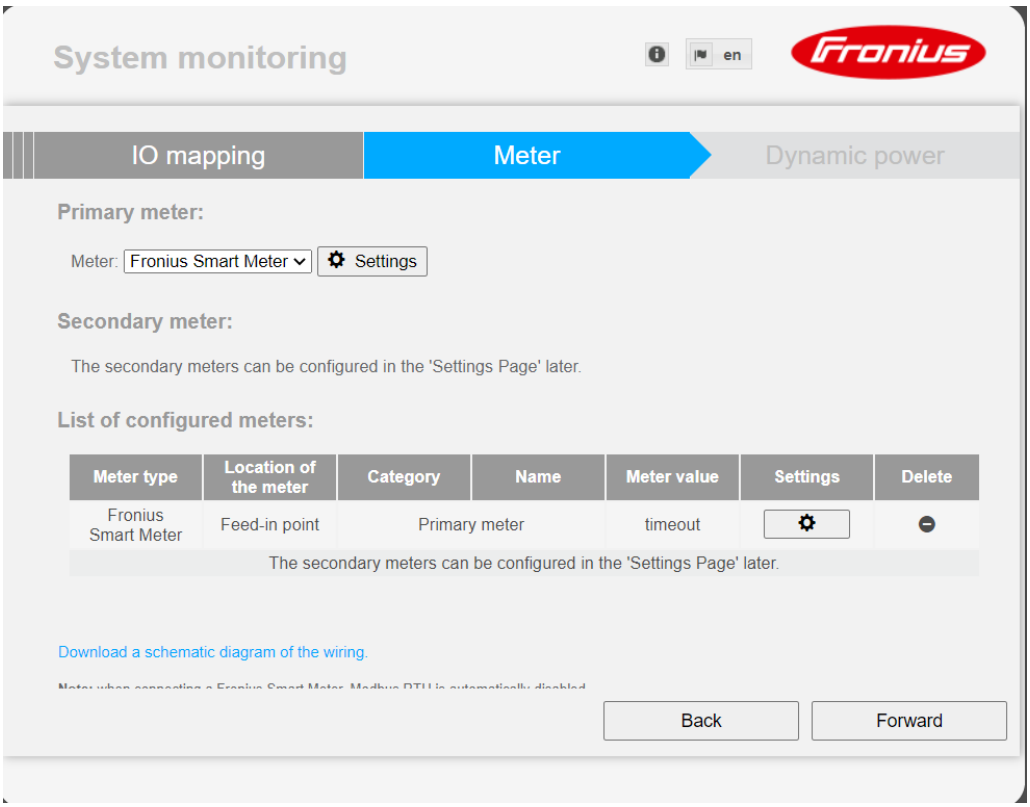


Inverter Setup

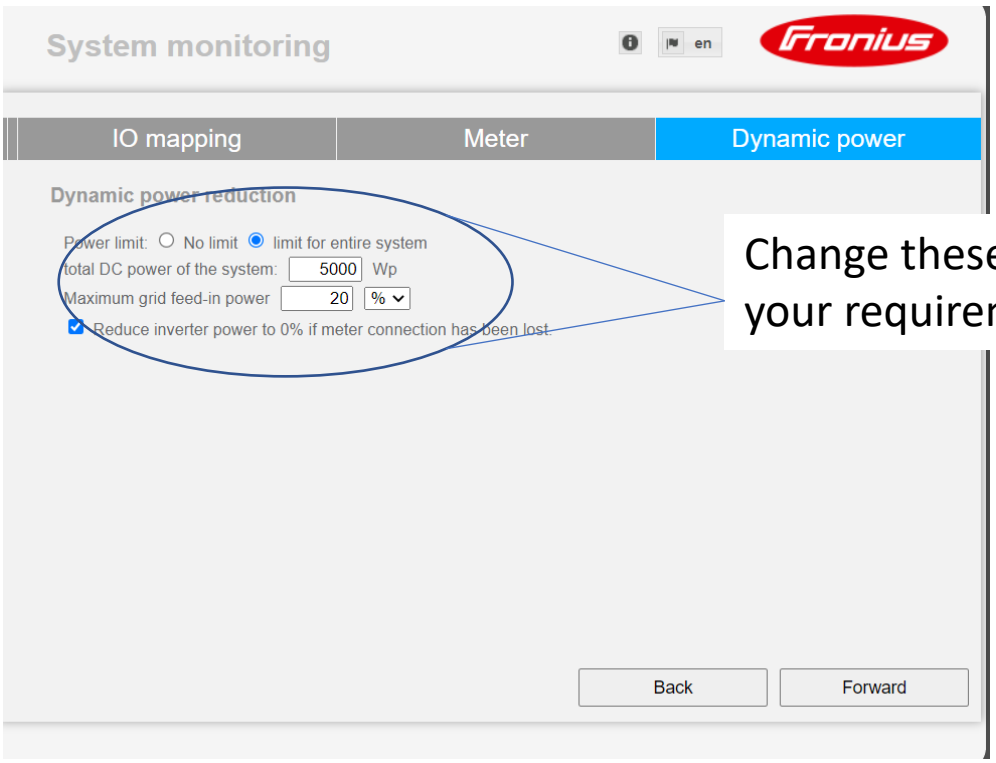
Setup the Inverter for export control exactly the same way you do with a regular Fronius Smart Meter.

1. Connect to the Web Configuration UI (http://192.168.250.181) and run the Technical Wizard.

2. When you get to the Meter setup enter the details as shown below.

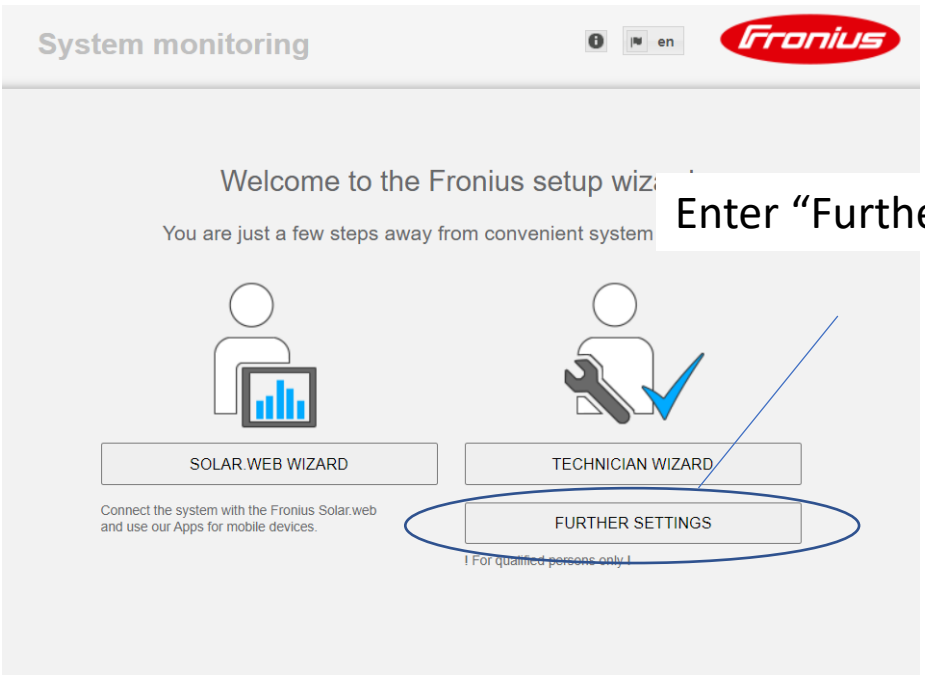


Inverter Setup



Change these to suite your requirements

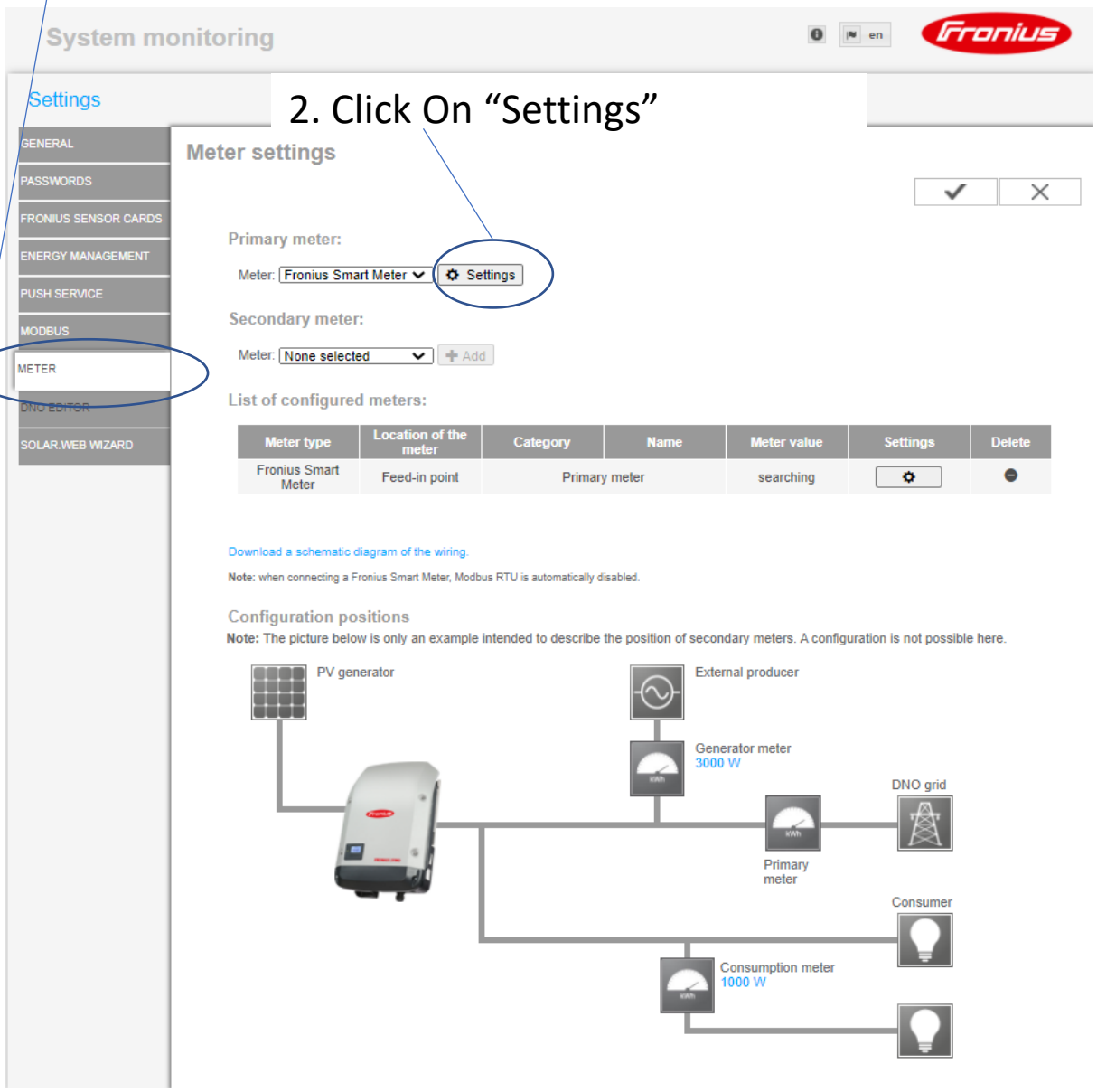
Inverter Setup



Enter “Further Settings”

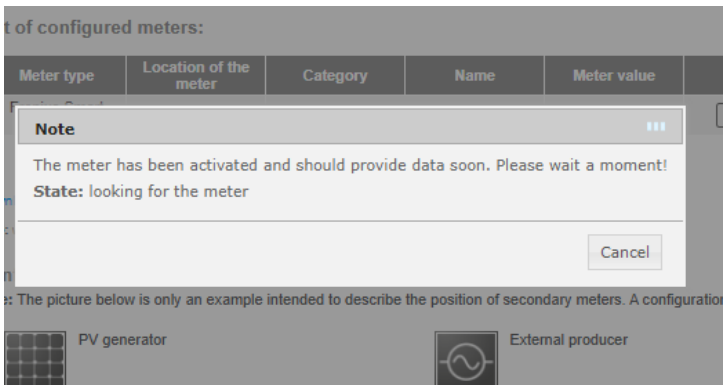
Inverter Setup

1. Click On the Meter Tab

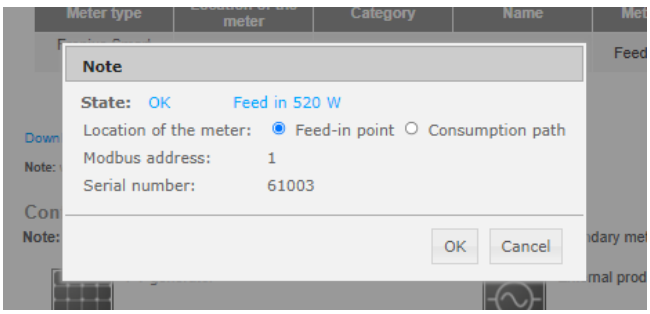


Inverter Setup

A message will appear as shown below. This will happen until the inverter has connected to the meter.



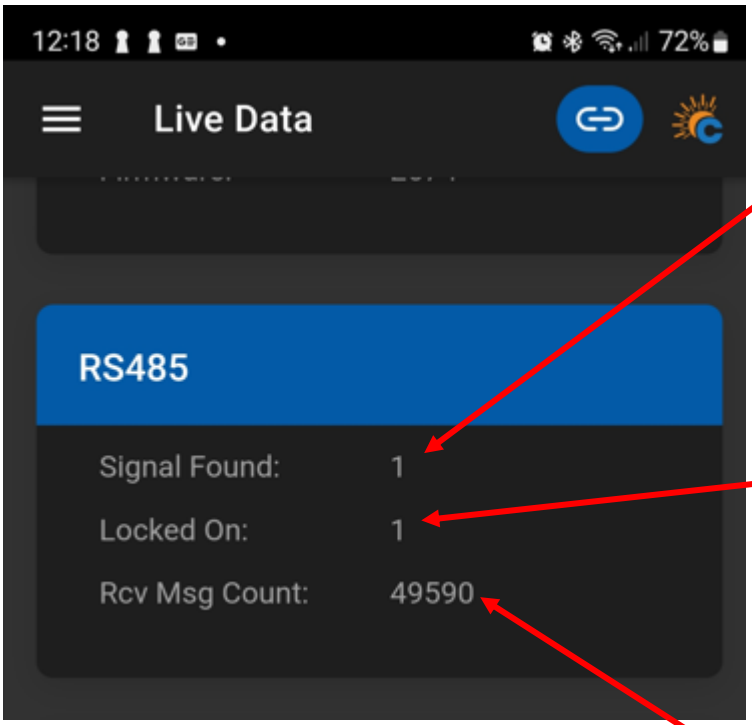
Once the inverter has successfully connected to the Solar Relay you will see this message.



Checking the status of the RS485 interface

Within the CATCH Power app if you navigate to the bottom of the Live Data screen you will see something similar to the screen below.

The RS485 Status Can be used to confirm correct operation



Indicates the inverter is transmitting data on the RS485 cable.

If this is zero it means the inverter is not communicating or there is a break in the cable.

This indicates the inverter and the CATCH Relay are talking the same language.

If this is zero it is likely you have not chosen the correct meter when configuring the relay or the +ve and –ve wires are crossed over.

This number continually counts the number of successful messages. This number will continue to rise if communications the link is good.

DYNAMIC / FLEXIBLE EXPORT CONTROL

THE FOLLOWING ONLY NEEDS
TO BE FOLLOWED IF YOU ARE ENABLING
DYNAMIC / FLEXIBLE EXPORTS

DYNAMIC / FLEXIBLE EXPORT CONTROL

RTU Control

DYNAMIC / FLEXIBLE Export Control

NO NATIVE MONITORING

If you choose to use RTU Control for this inverter, the Solar.Web platform will not work

NO BATTERIES

RTU Control cannot be used on Hybrid inverters that have a battery connected.

- Set the Soft Export Limit to ZERO

  The true export limit will be fed to the inverter via the Dynamic /Flexible Exports program. Regardless of what you have been told the export limit is SET IT TO ZERO.

- Set the Hard Export Limit (if required)

COMPLETE

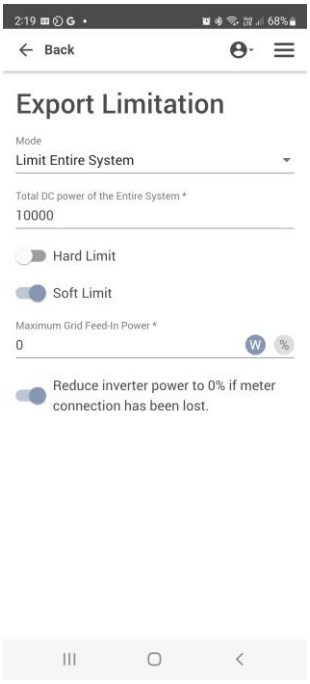
DYNAMIC / FLEXIBLE EXPORT CONTROL

DYNAMIC / FLEXIBLE EXPORT CONTROL

GEN24 setup via solar.start app

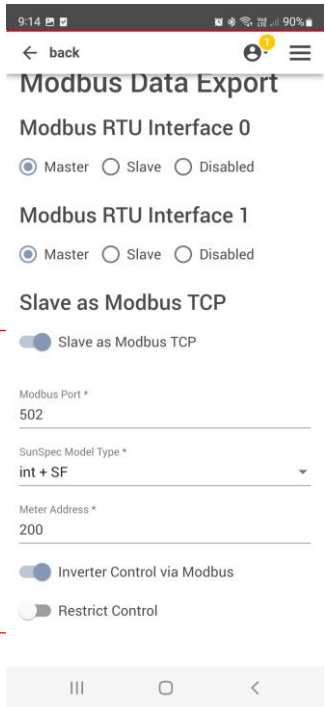
1. Set the Export limit to ZERO

- Hard Limit OFF
- export limit to ZERO
- Power down when meter fault.



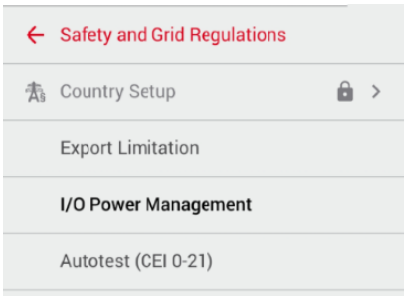
2. Turn on modbusTCP

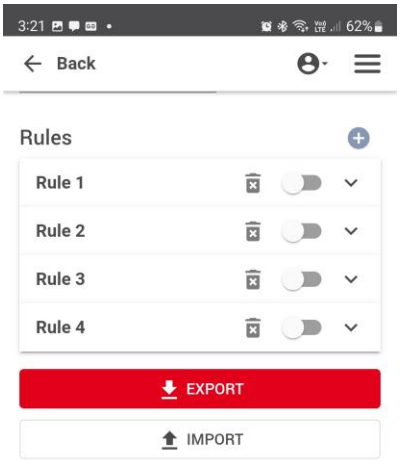
Make sure the numbers are set as shown



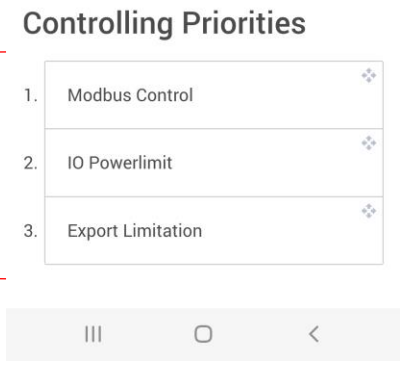
GEN24 setup via solar.start app

3. Set modbusTCP priority to High





Move Modbus Control from position 3 to Position 1

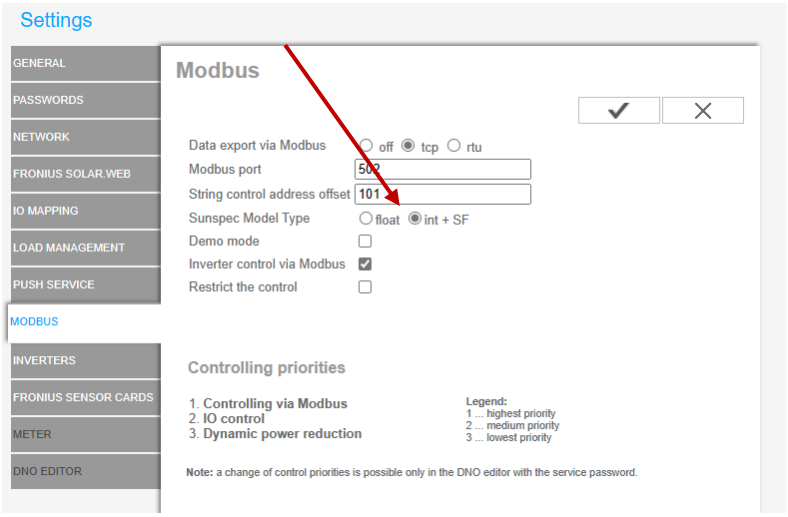


DYNAMIC / FLEXIBLE EXPORT CONTROL

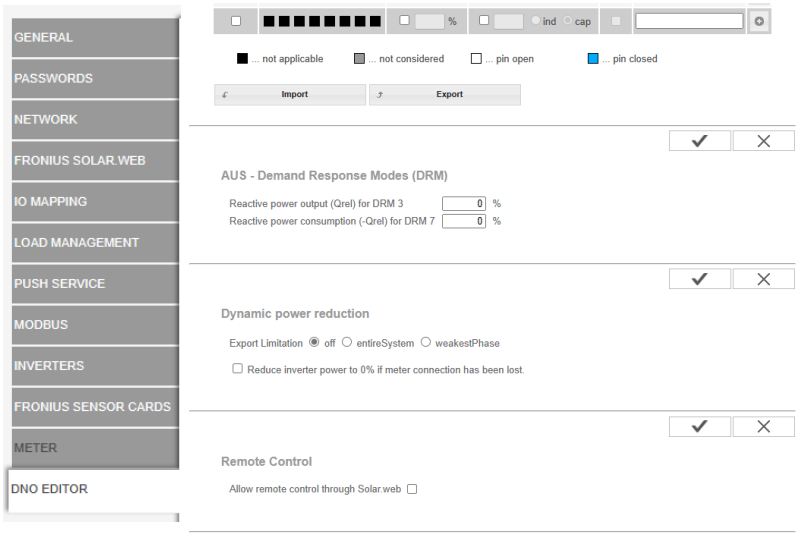
PRIMO SNAP-IN setup

1. Turn On Modbus TCP

Turn on the MODBUS over TCP and make sure settings are exactly as shown



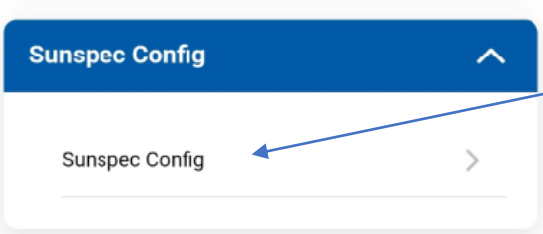
2. Make the Modbus Highest Priority



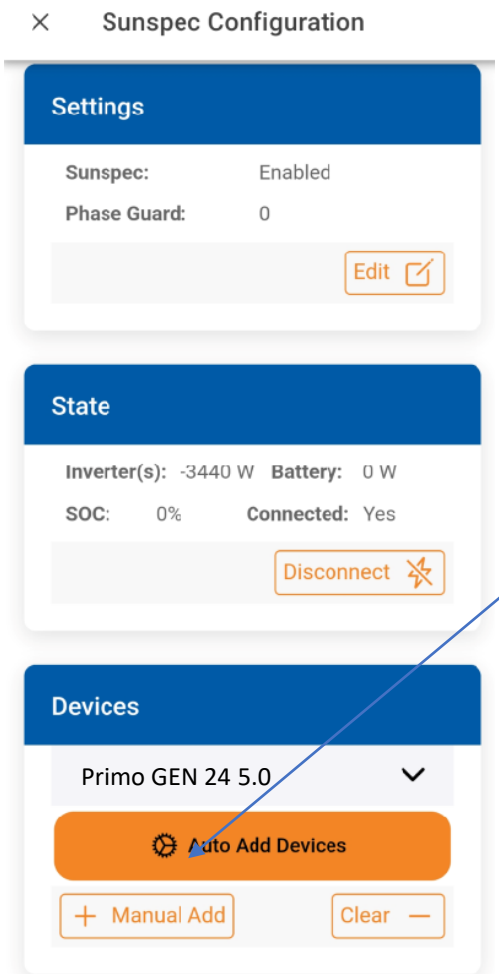
Within the DNO Editor
Scroll to the bottom.
MAKE MODBUS THE HIGHEST PRIORITY

Enable Sunspec on the CATCH Relay

Connect the relay to the inverter using SUNSPEC



1. Click here..and be a bit patient, this can take a few seconds to open the next screen.



2. Click on **Manual Add**.

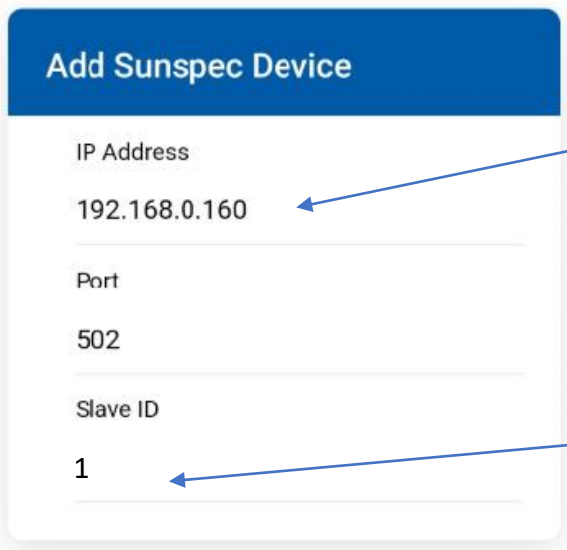
Do not attempt the auto scan for the inverter. It will not find it.

DYNAMIC / FLEXIBLE EXPORT CONTROL

SUNSPEC Control

DYNAMIC / FLEXIBLE Export Control

Connect the relay to the inverter using SUNSPEC



Type in the IP address you noted down from the inverter setup

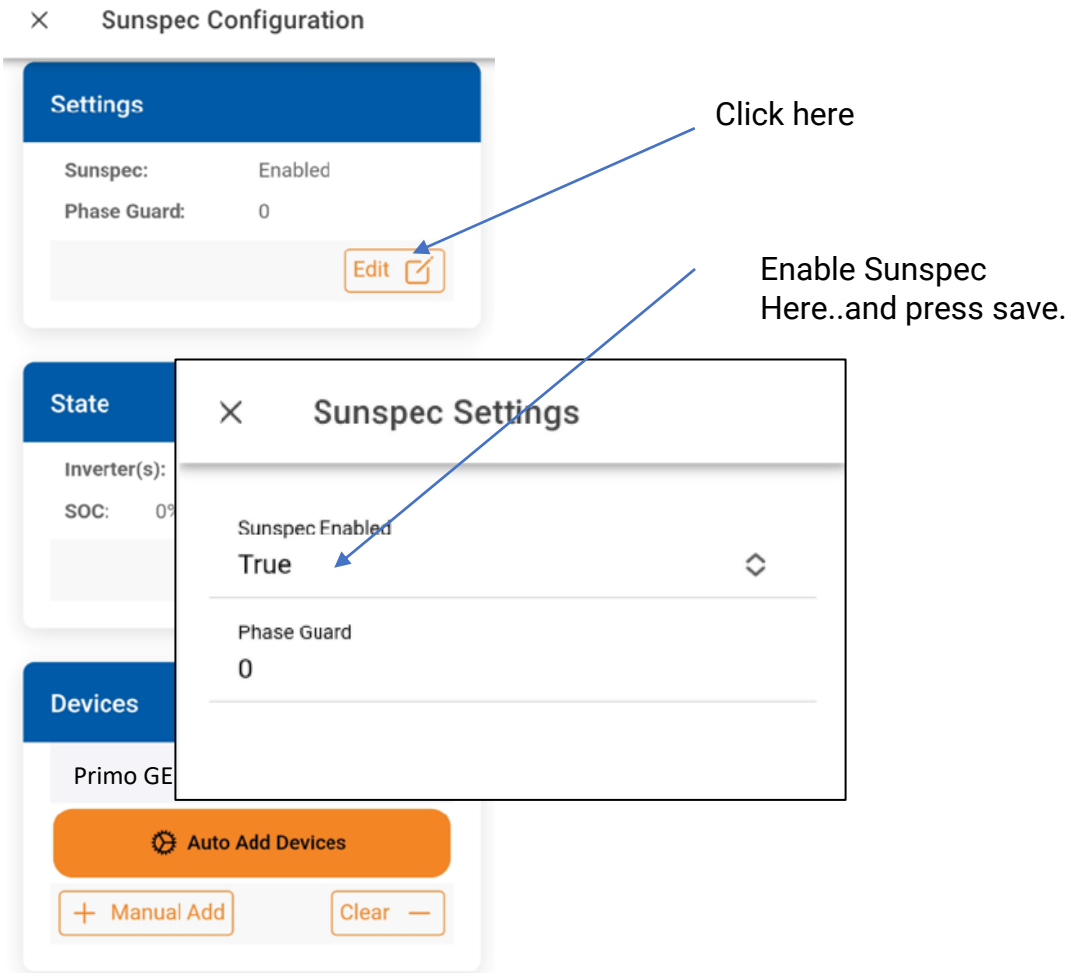
Set the Slave ID to 1.

If communicate was successful a message will say 1 device added.
When you close the dialog box the new unit should appear here.

The new device added

DYNAMIC / FLEXIBLE EXPORT CONTROL

Now the inverter and relay are connected. TURN SUNSPEC ON.



DYNAMIC / FLEXIBLE EXPORT CONTROL

REGISTER SITE

DYNAMIC / FLEXIBLE Export Control

DYNAMIC / FLEXIBLE EXPORT CONTROL

Follow the Configuration steps in the Electricians Guide to register the site for the MONOCLE, and for Dynamic / Flexible Exports

DYNAMIC / FLEXIBLE EXPORT CONTROL