CATCH Control

INVERTER CONTROL
with
SUNGROW
SGX.0RS / SHX.0RS

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SGx-RS

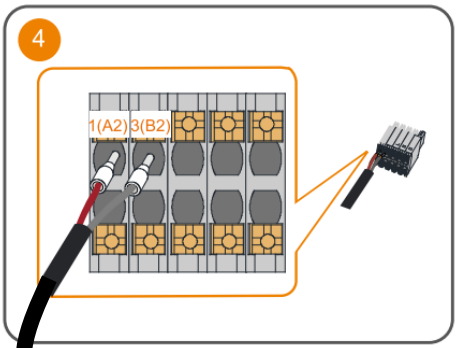
IMPORTANT

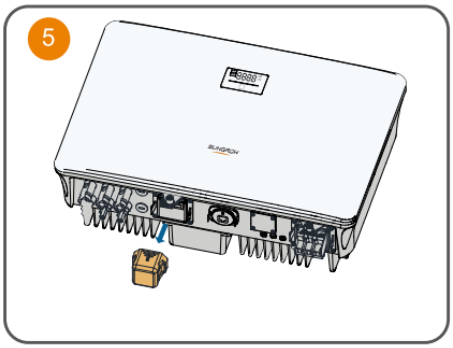
This guide discusses the specific wiring and configuration need to implement inverter control. Ensure the installation guide for both products is also followed.

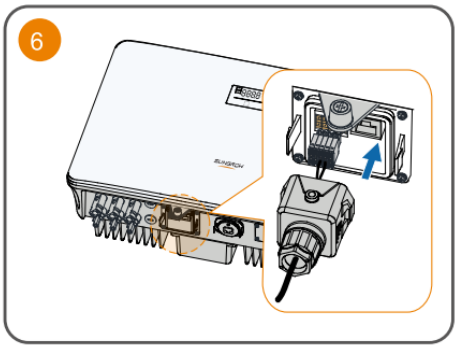
Wiring Instructions – SGx-RS

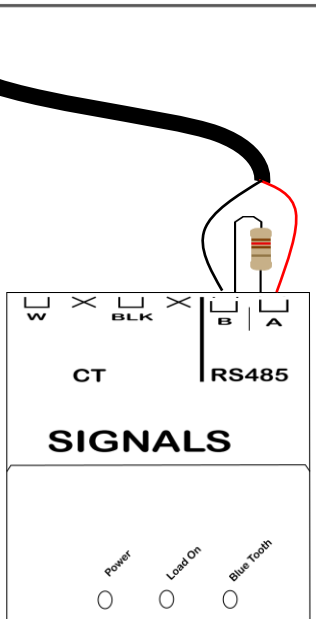
Ensure the data cable is rated for the voltages it will be in close proximity to.
A 120 Ohm terminating resistor may be required at the CATCH Control terminals as shown in the diagram below if the cable run is longer than 10m.

SG8.ORS









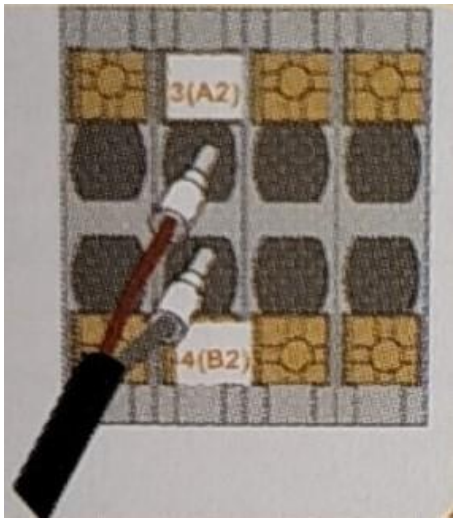
SG5.ORS

RS485 A -> 3(A2)
RS485 B -> 4(B2)

SG8.ORS

RS485 A -> 1(A2)
RS485 B -> 3(B2)

SG5.ORS



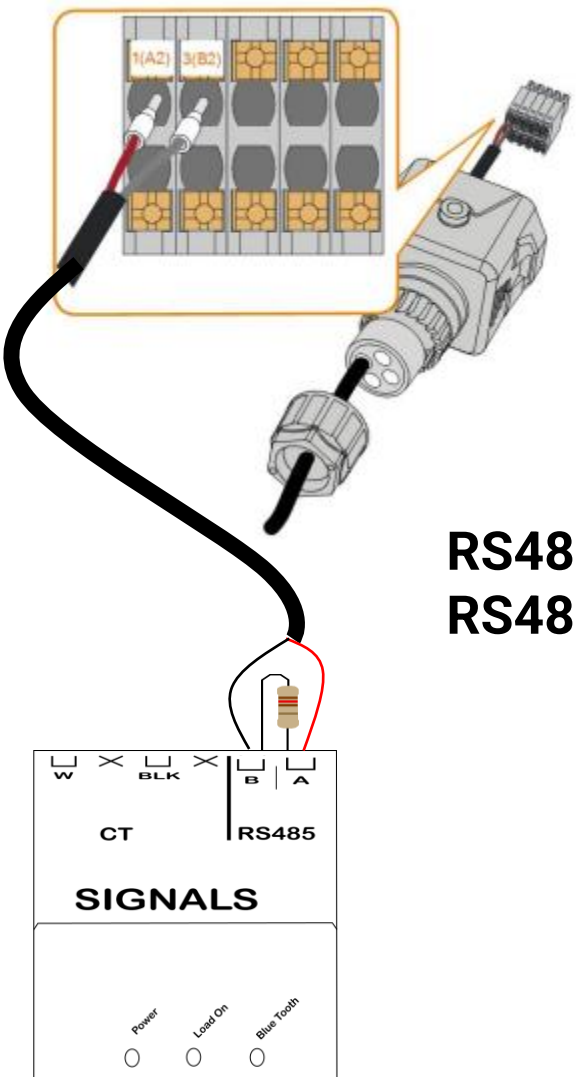
SHx.0RS

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 – SHx.0RS

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 Control terminals as shown in the diagram below if the cable run is longer than 10m.



RS485 A -> 1(A2)
RS485 B -> 3(B2)

CATCH Control Setup

The screen below is from the CATCH Power Configuration App. The App can be downloaded from Google Play Store or the Apple iStore.

IMPORTANT

DO A FIRMWARE UPGRADE BEFORE YOU BEGIN

We are adding new inverters, and new control features all the time. Your relay firmware is most likely out of date already. Follow the onscreen instructions and perform a firmware update before you continue on

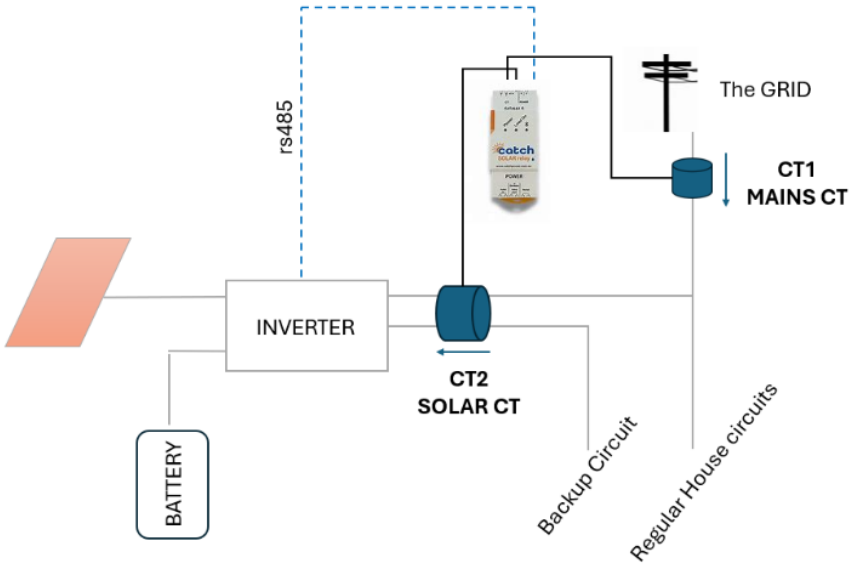
Sungrow Inverter Configuration

All Sungrow inverter configuration should be as per your normal installation program except for the following two elements:

- DO NOT use FULL backup, If you want the backup use PARTIAL backup instead.
- Set the export limit of the inverter to ZERO. Don't worry, export limit control is managed inside the CATCH Control device.
- We recommend Hard-wiring the inverter to the network. Using WiFi you cannot set a static IP Address so the inverter will eventually not be contactable.
- When the inverter is hard-wire make sure you set a STATIC IP ADDRESS.
- CATCH Control only works with the **Winet-S** Wifi dongle.

CT Configuration

The CT Configuration for SUNGROW Hybrid installs is slightly different, the diagram below outlines how the CT's need to be arranged.

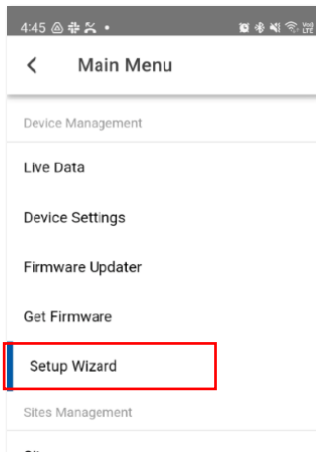


NOTE: How CT2 (W2) has the backup circuit and the AC Port of the inverter passing through it. If you cannot get both wires through one CT, you can parallel the two CT's into the W2 terminal, Just make the arrow on both CT's is pointing towards the inverter.

CATCH Control Setup

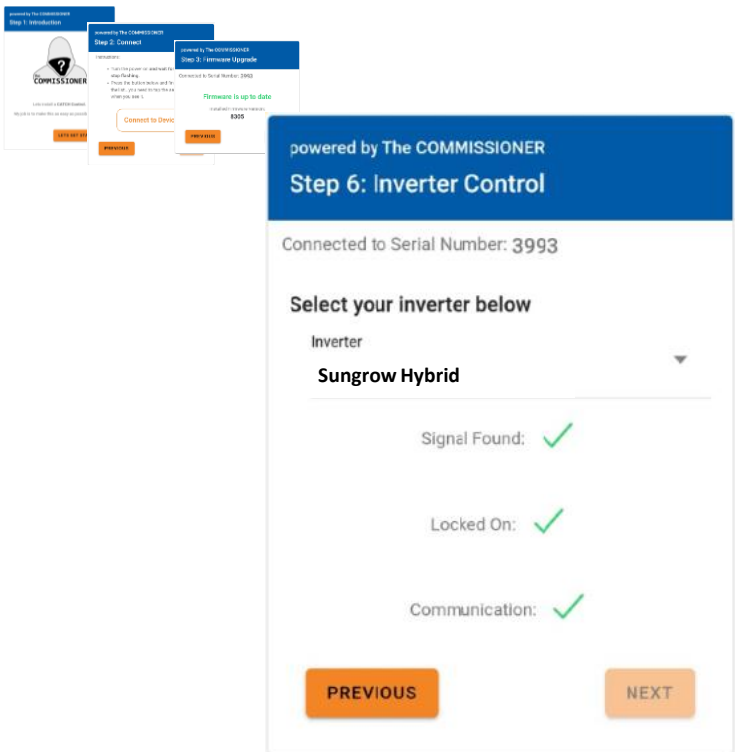
1. Log into the CATCH Configurator and run the Commissioner.

CATCH Power Configurator



2. Follow the Commissioner step by Step.

Step 6: Inverter Control
choose **Sungrow Hybrid** as the meter. And make sure you get all green ticks.



Choose: **Sungrow Hybrid**

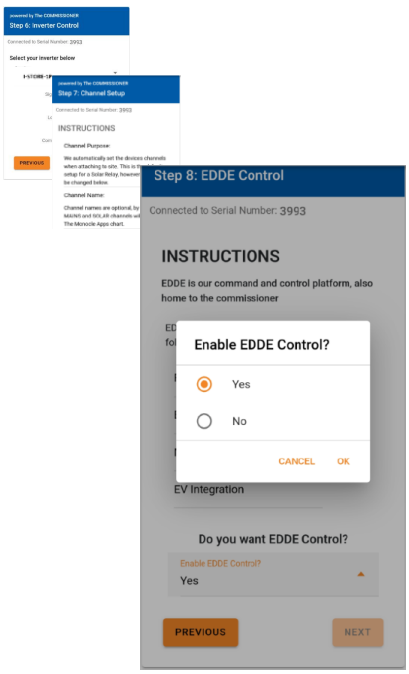
You need **3** green ticks.

CATCH Control Setup

CATCH Power Configurator

2. Follow the Commissioner step by Step.

Step 8: EDDE Control
choose **YES** want EDDE Control enabled.



CATCH Control Setup

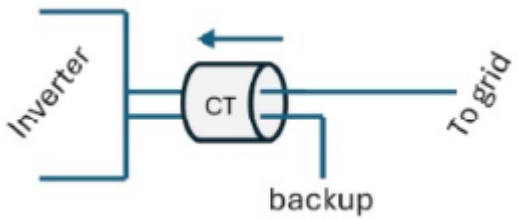
2. Follow the Commissioner step by Step.

Step 9: EDDE Export Control

There are 2 important things for you to do.

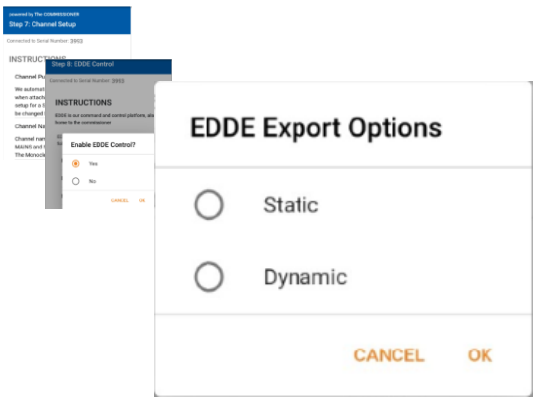
1. Make sure the solar CT is wrapped around the AC port of the inverter as shown Below.

   The SOLAR CT is **W2**.



2. Make sure you configure the inverter to be ZERO exported. (You should have done that in the previous inverter configuration section)

Tell us how the export limit is to be managed.



Static: Is when the DNSP tells you there is a fixed export limit. Example the connection application might say the site is limited to 5kW. This is a static export limit.

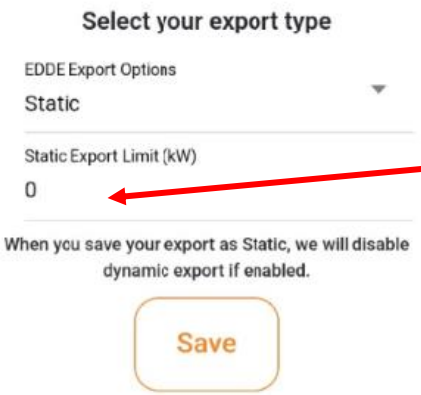
Dynamic: When you put the connection application in you would have nominated for the dynamic connection. The DNSP will adjust the export limit based on daily requirements.
You will need the NMI to complete the dynamic connection setup.

CATCH Control Setup

2. Follow the Commissioner step by Step.

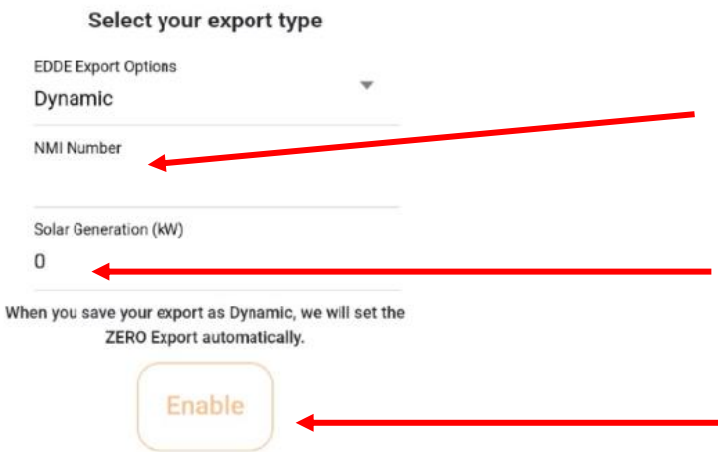
Step 9: EDDE Export Control..Continued

Static Export Configuration:



Fill out the export limit. For example if the site has a 5kw export limit type in 5 for the export limit and press **SAVE**

Dynamic Export Configuration:



Enter the customers NMI. This can be a 10 or 11 digit NMI.

Tells us the total amount of solar on site. Including any old systems.

Press Enable.

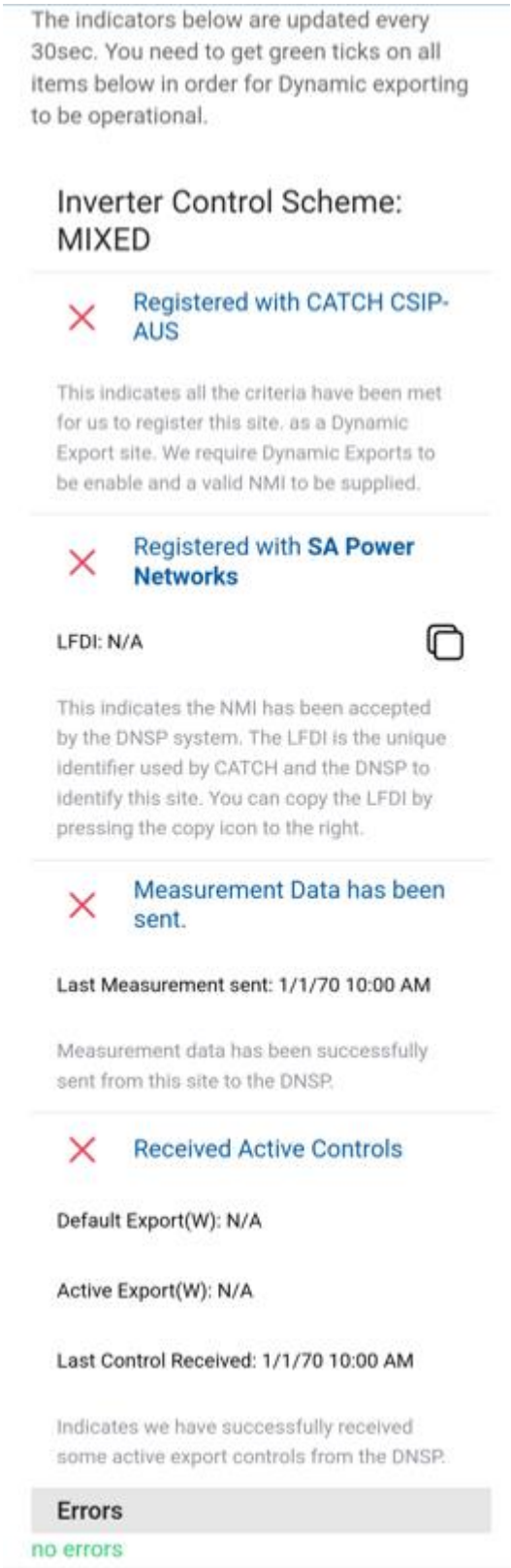
CATCH Control Setup

2. Follow the Commissioner step by Step.

Step 9: EDDE Export Control..Continued

Dynamic Export Configuration - Continued:

Once you have filled out the required information and pressed save the follow appears and shows you how the registration for dynamic exports is progressing… You want to see all green ticks for everything to be working.

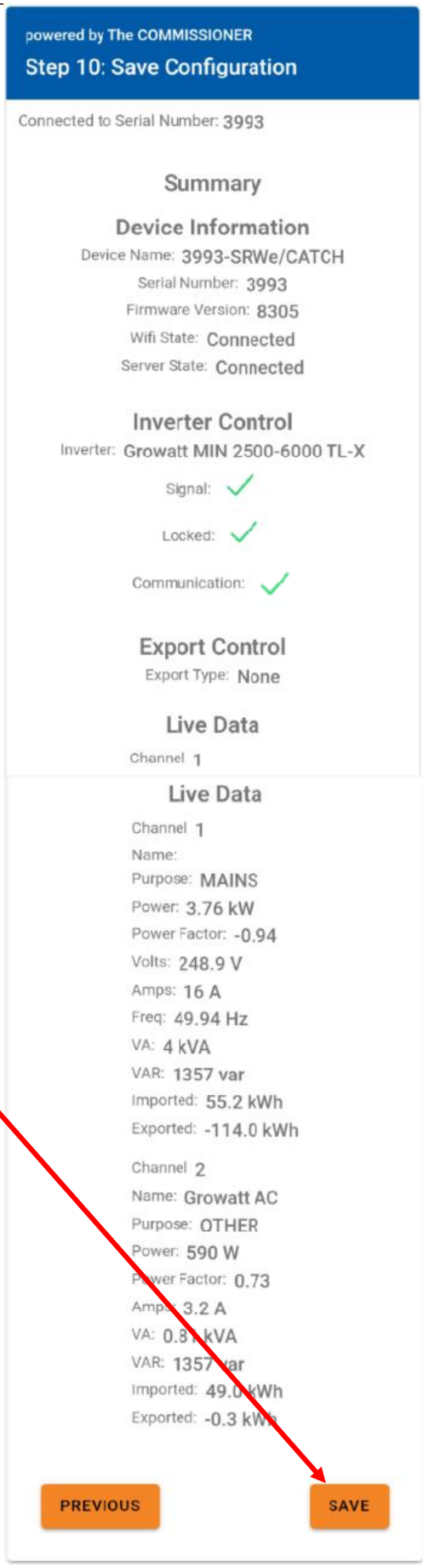


CATCH Control Setup

2. Follow the Commissioner step by Step.

Step 10: Save Configuration

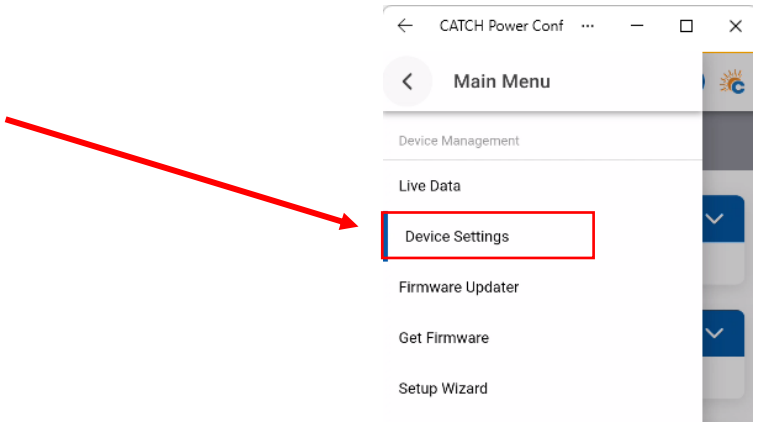
The final step is to review the configuration, and Press **SAVE**.



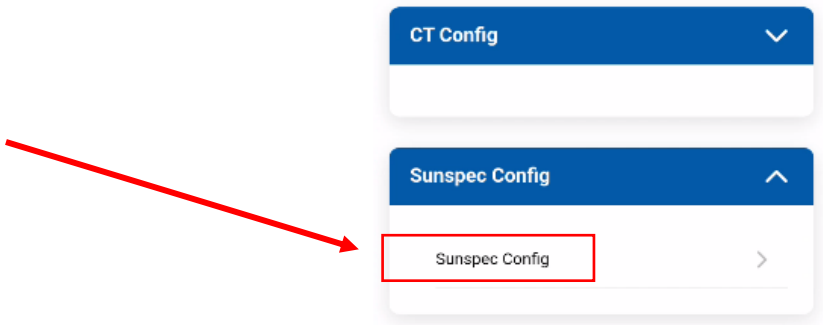
CATCH Control Setup

At this stage most of the CATCH Control is setup. You need to run a SUNSPEC scan in order to find the inverter on the network. We get the battery data from the inverter via the local network.

Go to device Settings



Scroll down until you get to the Sunspec Config and click on the Menu Item



CATCH Control Setup

At this stage most of the CATCH Control is setup. You need to run a SUNSPEC scan in order to find the inverter on the network. We get the battery data from the inverter via the local network.

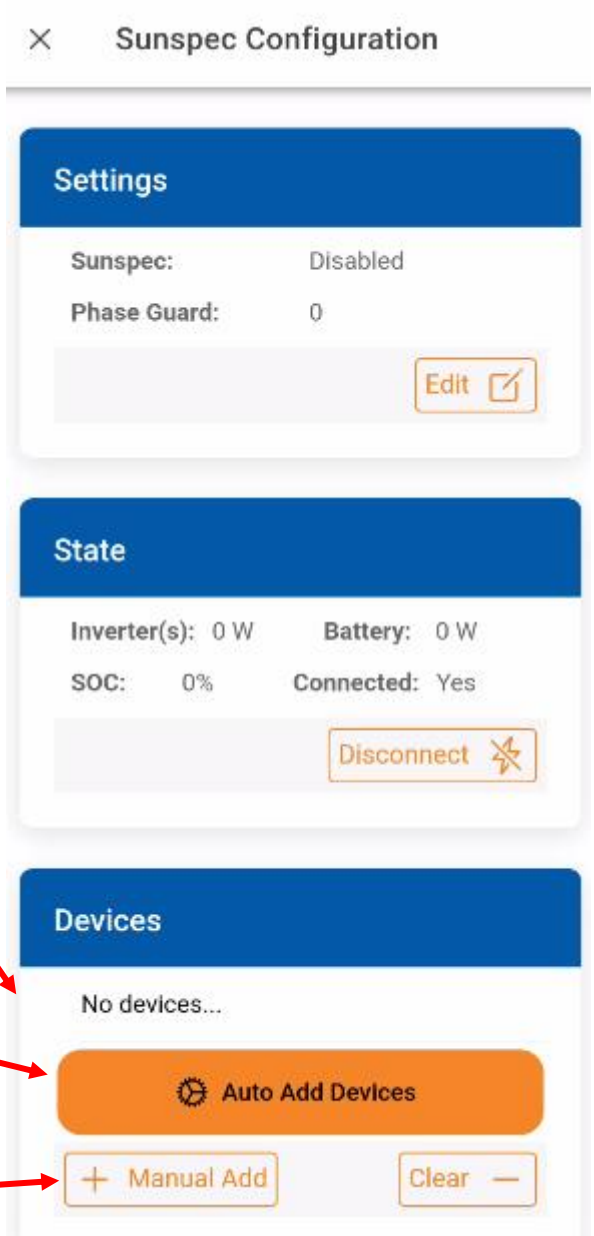
When you first come into the SUNSPEC screen all of the values are zero

and the devices screen says no devices..

You can connect to the Sungrow inverter by either AUTO SCANNING. Auto scanning can take several minutes to complete.

Or

if you know the IP Address you can manually add the inverter.

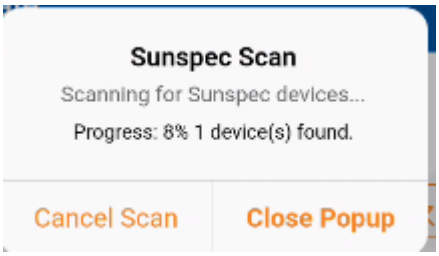


CATCH Control Setup

SUNSPEC - AUTO SCAN

A pop-up box displays and shows you the progress of the scan. As inverters are found you will notice the “device(s) found” increasing.

You can cancel the scan any time once your inverter is found.



SUNSPEC – MANUAL ADD

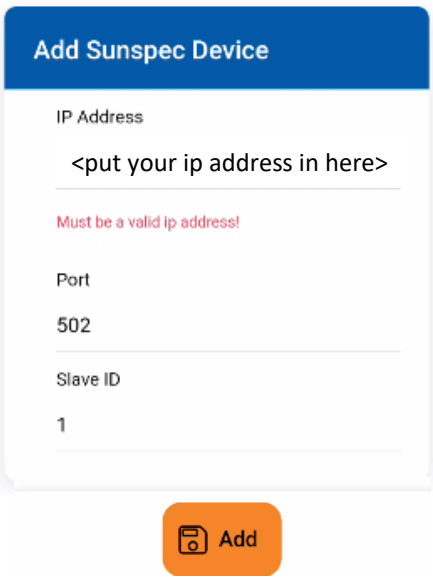
If the inverter is connected via WiFi (we do not recommend this) you can obtain the inverters IP address by connecting to the inverters Soft access point and navigating to http://10.10.10.1

Make sure to set

- Port: 502
- Slave ID: 1

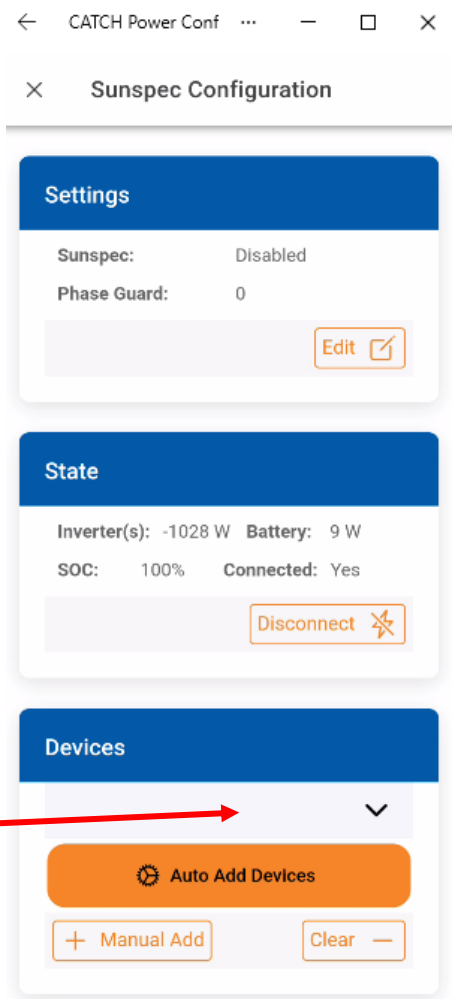
The press the **ADD** button.

All going well you will get a message saying 1 device(s) added.



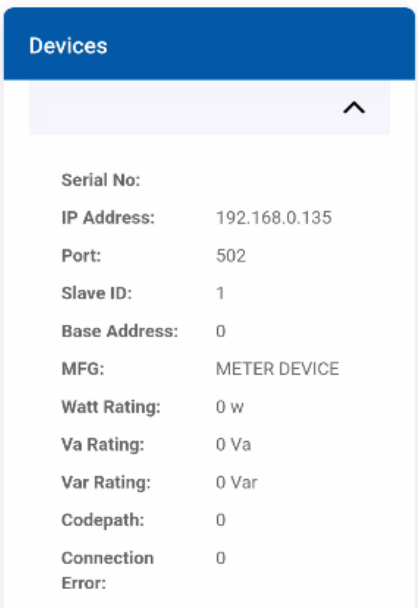
CATCH Control Setup

If the Sunspec device has been successfully added the Sunspec screen should like like this.



Inverter output, Battery SoC and Battery W should all have values

Click here to expand and the device should like below



Notice the MFG says METER DEVICE. This is how it needs to be. If you see anything else include Sungrow or any other variation you have not connected properly to the inverter. Is MUST SAY **METER DEVICE**

If you have picked up the wrong device. Press the Clear button and do it again.