SOLAR RELAY

INVERTER CONTROL
with FIMER

UNO-DM

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

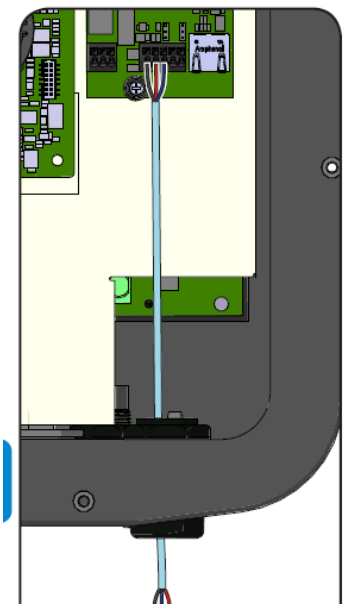
This guide discusses the specific wiring and configuration need to implement inverter control. Ensure the installation guide for both products is also followed.

Wiring Instructions

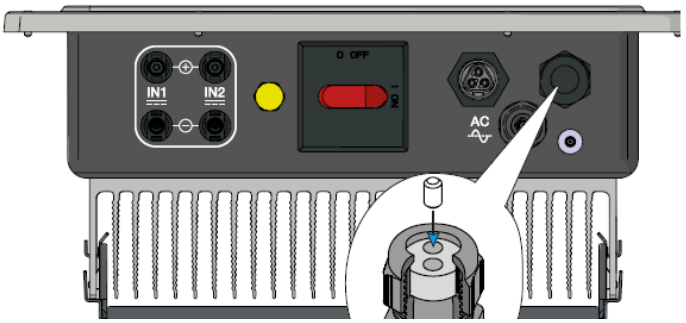
The UNO-DM-COM kit for RS485 must be installed in the inverter. This may be supplied with the inverter, or purchased separately from your inverter wholesaler.

Connect the RS485 wires as per the UNO-DM-COM kit instructions (replicated below)

Communication and control signal connections to the UNO-DM-COM KIT board (only for -X models or optional accessory)

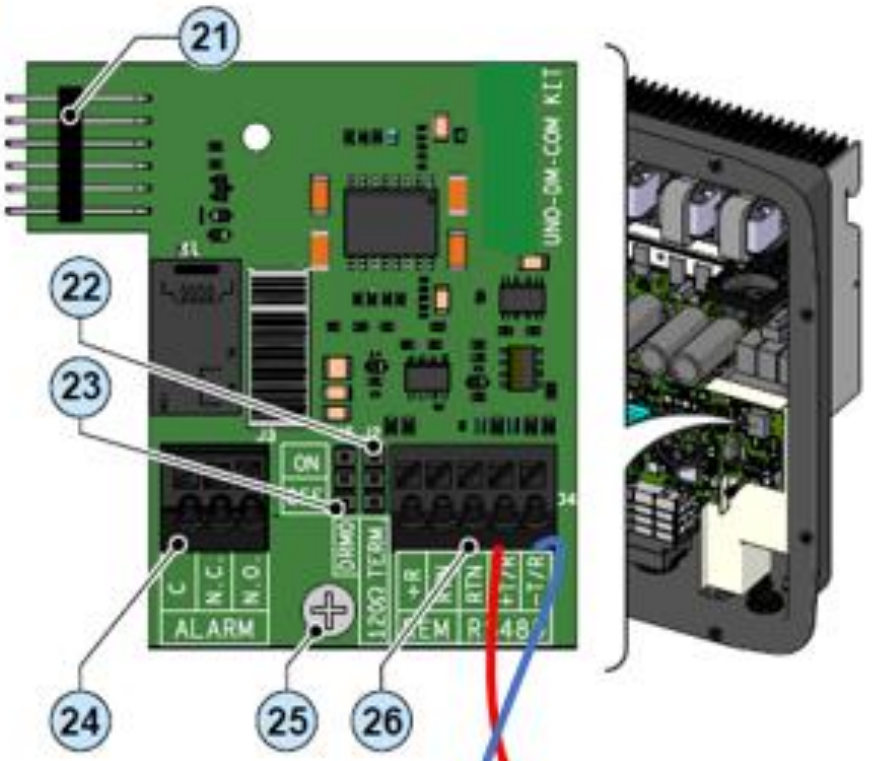


Each cable which must be connected to the UNO-DM-COM KIT or UNO-DM-PLUS-COM Ethernet KIT board connectors must be passed through the specific cable conduit present on the plastic shield of the mainboard, then it must be passed through the service cable glands (20) present on the lower side of the inverter. An M25 cable gland (that takes cables from 10 mm to 17 mm in diameter) and a gasket with two holes to insert into the cable gland which enables two separate cables of a maximum diameter of 6 mm to be accommodated, are available.



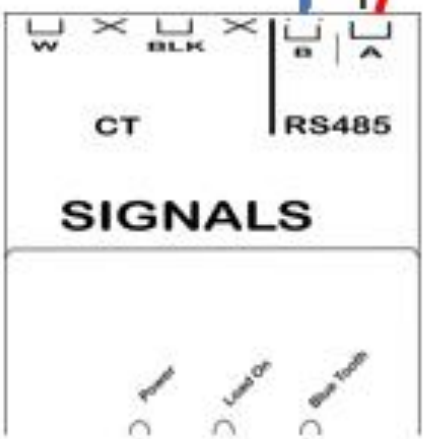
Accessory Board UNO-DM-COM KIT
(Equipped on -X models or optional accessory)

21. Inverter connector
22. RS485 Termination line jumper
23. DIP#0 activation jumper
24. ALARM terminal block
25. Fixing hole
26. RS485 and REM terminal block



UNO-DM-COM '+T\R' → Catch Power 'RS485 A'

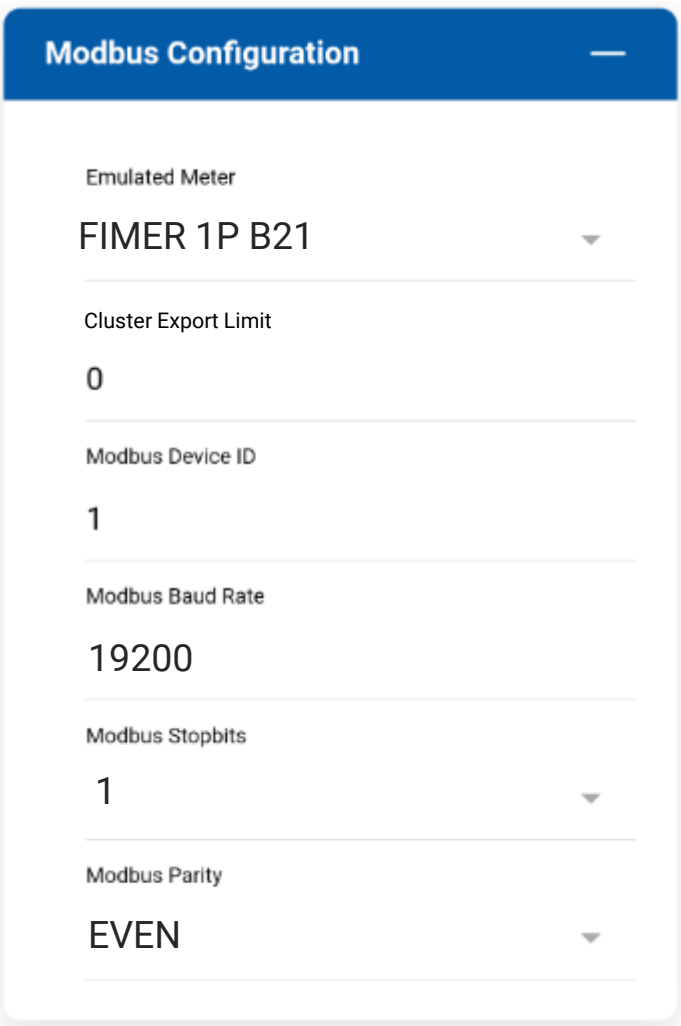
UNO-DM-COM '-T\R' → Catch Power 'RS485 B'



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.

SOLAR RELAY Setup

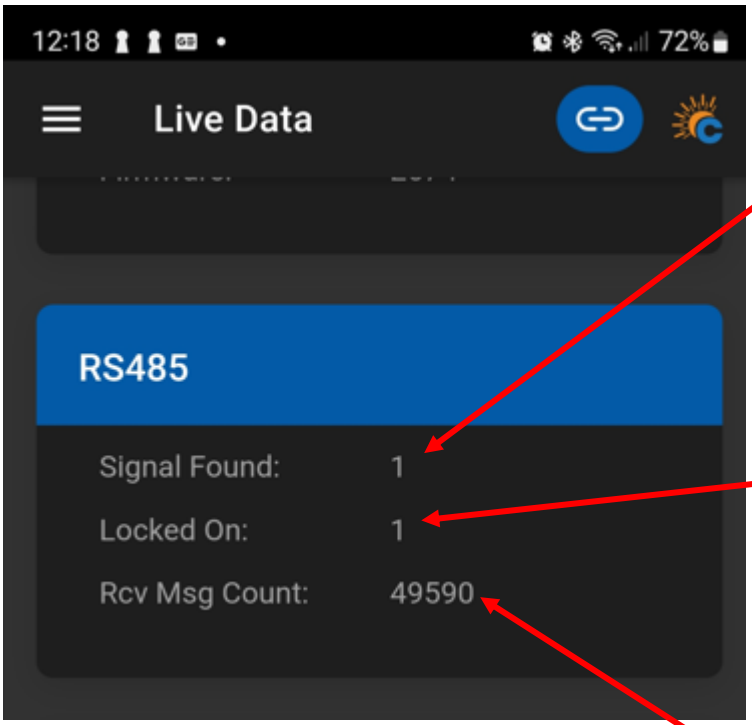
The Solar Relay Must be configured before the Inverter, otherwise the inverter will not allow you to complete the entire setup process.



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.

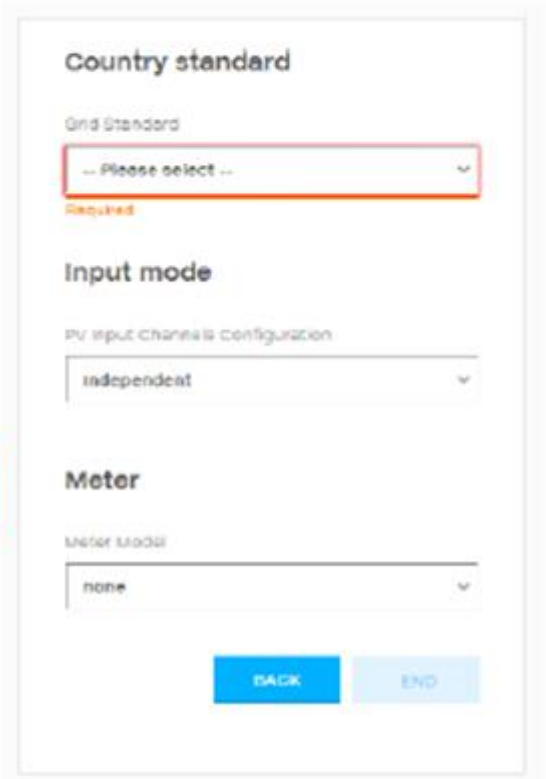
Inverter Setup

Follow the inverter commissioning instructions (Extract Below). When you get to choosing the meter model, select **FIMER 1PH**

STEP 4 - Inverter country standard, Input configuration and Meter configuration (Dynamic Feed-in Control)

- <u>Country standard: selection of grid standard</u>:
  Set the grid standard of the country in which the inverter is installed.

⚠ *From the moment that the grid standard is set, you have 24 hours to make any changes to the value, after which the "Country Select > Set Std." functionality is blocked, and the remaining time will have to be reset in order to have the 24 hours of operation available again in which to select a new grid standard (follow the procedure "Resetting the remaining time for grid standard variation" described in the relevant section).*



- <u>Input mode</u>:
  (See the relevant section of this manual to know how set the input mode)
  1. **Indipendent**
  2. **Parallel**

- <u>Meter</u>:
  When a meter device is connected to the inverter, it's requested to select the meter model:
  1. **None** (where system is installed without meter)
  2. **REACT-MTR-1PH** (single-phase)
  3. **FIMER1PH** (single-phase)
  4. **FIMER3PH** (three-phase)

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

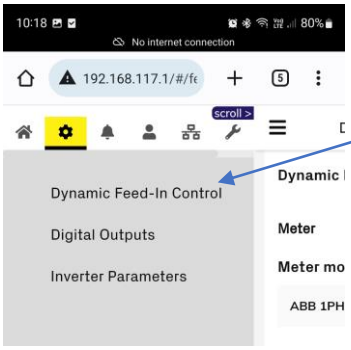
NO NATIVE MONITORING

If you choose to use RTU Control for this inverter, the FIMER monitoring platform will not work

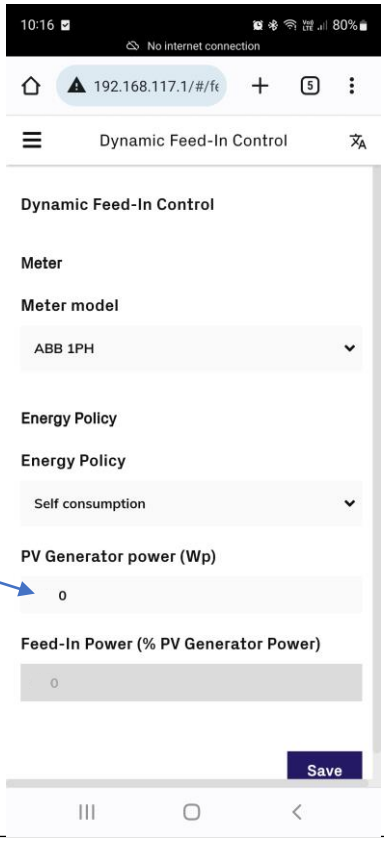
NO BATTERIES

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

Under Dynamic Feed-in Controls



Ensure the Export limit is set to ZERO

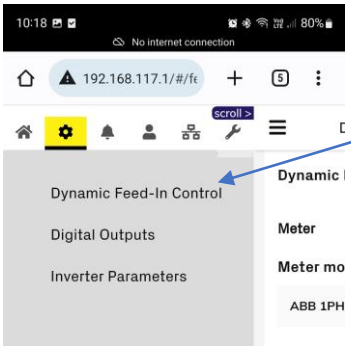


COMPLETE

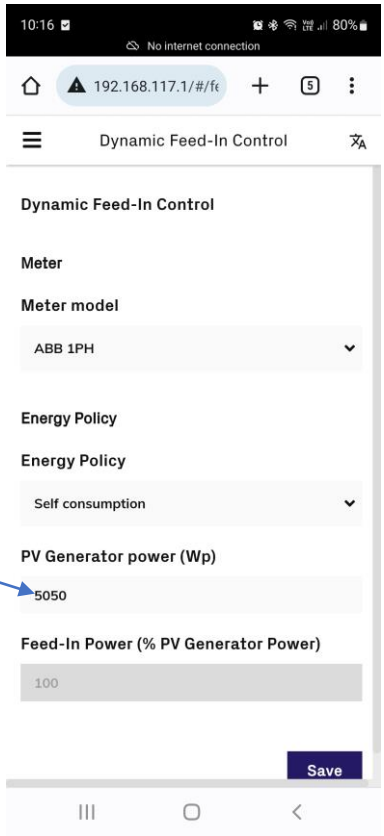
SUNSPEC Configuration

Ensure the Inverter is connected to the Local WiFi system.

Under Dynamic Feed-in Controls



Ensure the Export limit is set to the MAX inverter output



DYNAMIC / FLEXIBLE EXPORT CONTROL

Enable Sunspec on the CATCH Relay

Contact CATCH Power for details are how to do this.

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