



SOLAR RELAY

INVERTER CONTROL with GE GEP



CATCH Power
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IMPORTANT..PLEASE READ

The CATCH Solar Relay works by emulating the energy meter the inverter would normally use.

This means two things are really important.

1. You need to read the inverter manual:

Make sure you understand how to setup the inverter for export control. When you read the manual it will talk about an energy meter or CT...Follow the instructions exactly as they are in the manual. If there are any changes required we will let you know further down in this document.

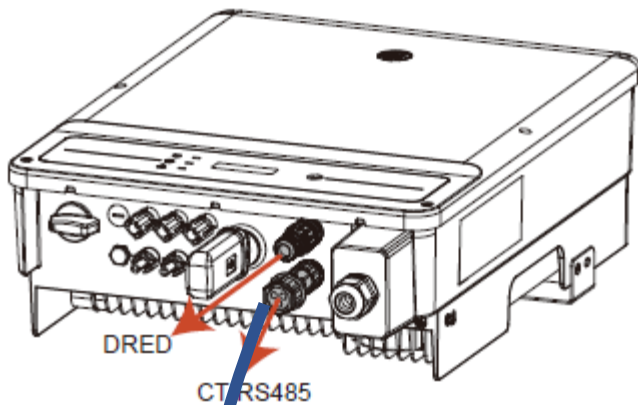
2. Read the CATCH Solar Relay installation manual:

The manual outlines how to setup the CATCH Solar Relay to control loads. It also outlines circuit breaker requirements, how to use the CATCH Configurator App, etc.

Once you have followed step one and two you are ready to proceed....

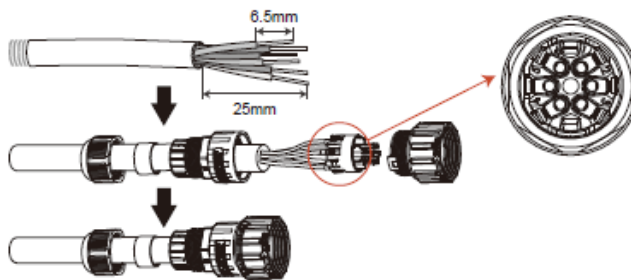
Wiring Instructions

CATCH Solar Relay and the inverter communicate using RS485. Connecting the two pieces of hardware requires a 2 core RS485 cable. When the RS485 cable run is greater than 20m it is recommended to use a 2 core cable designed specifically for RS485 communication, it will typically have a 120 Ohm characteristic impedance. However, for short cable runs any 2 core cable will typically do the job, as long as it is rated for the voltages it will be exposed to. The pink CBUS data cable is ideal for short cable runs.



Connection of CT(Power Limit Device)/RS485

Detailed operation is shown below:

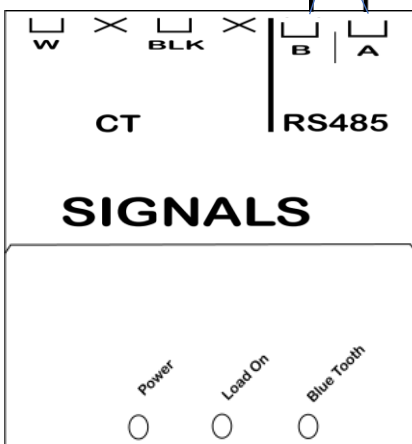


RS485	
NO.	Function
1	RS485 B
2	RS485 B
3	RS485 A
4	RS485 A

CT	
NO.	Function
5	CT +
6	CT -

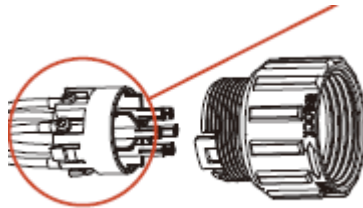
Pin 3 => Catch Solar Relay RS485 A

Pin 1 => Catch Solar Relay RS485 B



Wiring Instructions..Continued

When assembling the RS485 plug on the inverter it is important to know that there is no key to physically align the correct pin to the correct hole in the housing. There are two locking clips which you need to use to determine the correct pin and correct hole alignment.



To align them in the correct way you need to inspect the clips closely for a marking. The part on the left (in above image) will have an arrow on one of its two clips and the part on the right (in above image) will have an arrow on one of its two clips. These arrows align the correct clips to lock the part together.

SOLAR RELAY 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



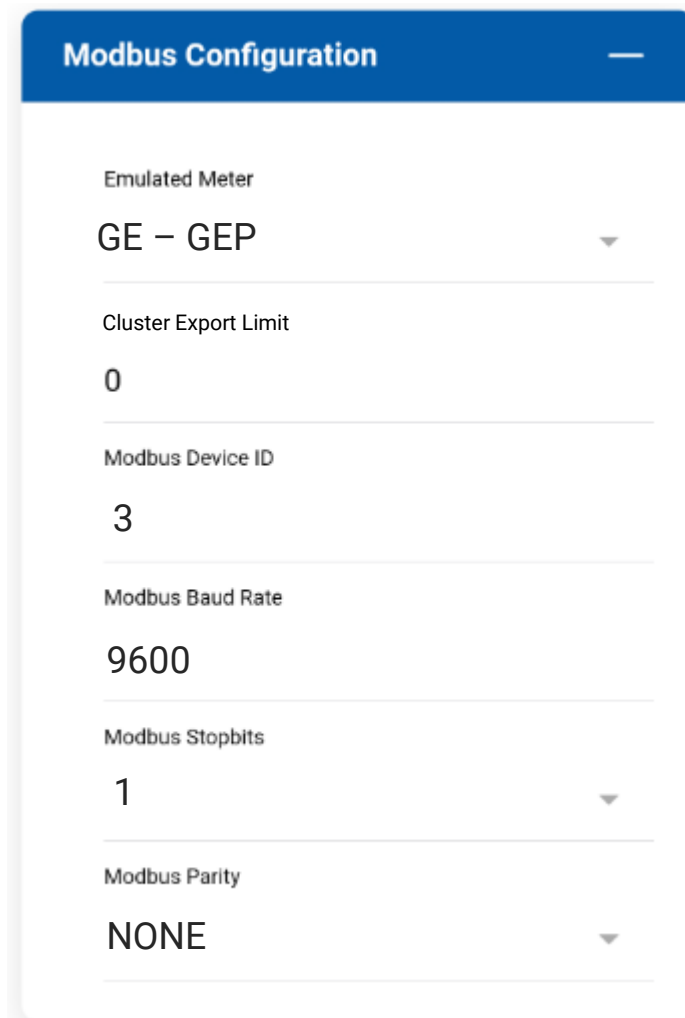
DO A FIRMWARE UPGRADE BEFORE YOU BEGIN

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

SOLAR RELAY Setup

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

Save your changes.

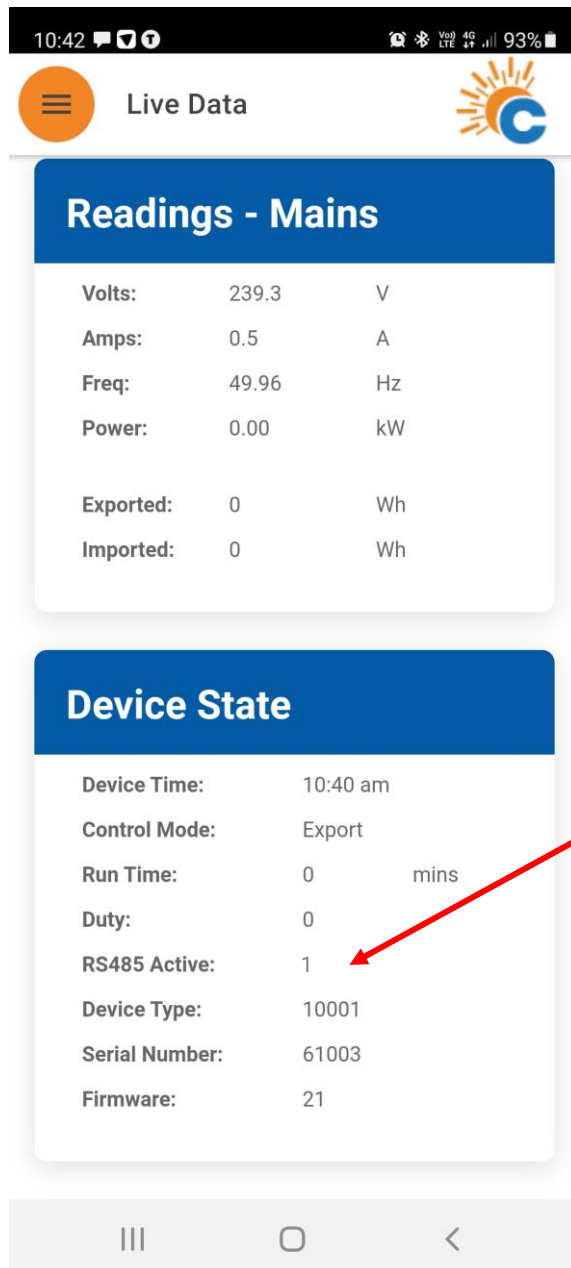
A screenshot of a mobile application's "Modbus Configuration" screen. The screen has a blue header with the title "Modbus Configuration" and a white body with several configuration fields. Each field has a label, a value, and a dropdown arrow on the right side. The fields are: "Emulated Meter" with value "GE - GEP", "Cluster Export Limit" with value "0", "Modbus Device ID" with value "3", "Modbus Baud Rate" with value "9600", "Modbus Stopbits" with value "1", and "Modbus Parity" with value "NONE".

Field	Value
Emulated Meter	GE - GEP
Cluster Export Limit	0
Modbus Device ID	3
Modbus Baud Rate	9600
Modbus Stopbits	1
Modbus Parity	NONE

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 Active field should toggle between zero and one. Regularly, if you do not see it with a value of 1 it indicates there is a problem.



RS485 Active will toggle between zero and one if the interface is functioning correctly

Inverter Setup

The installation manual of the GEP Series inverter will take you through the installation process of the inverter. Follow the instructions exactly as they are except .

YOU WILL NOT NEED TO CONNECT THE GE CT FOR THIS INSTALLATION