



SOLAR RELAY

INVERTER CONTROL
with
SUNGROW
SG5K-D / SGX.0RS / SHX.0RS



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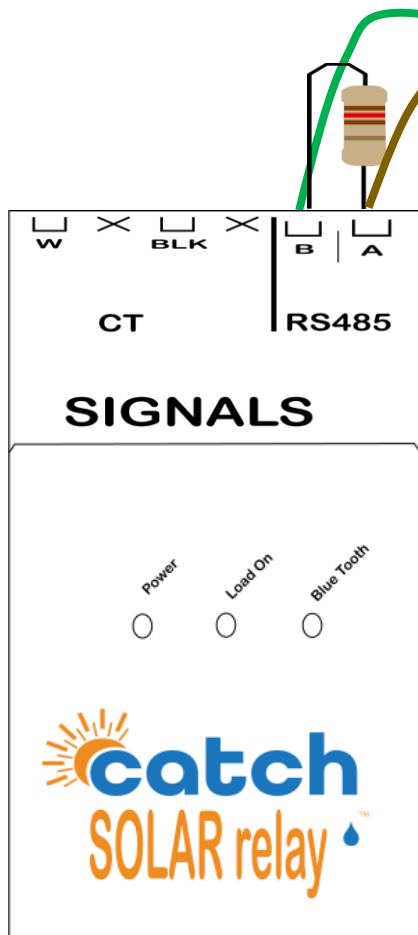
IMPORTANT



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 – SG5K-D

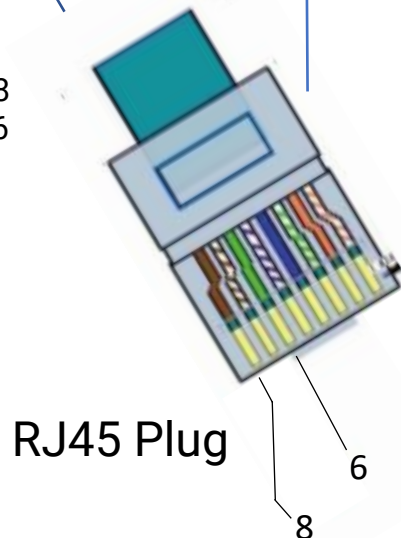
Ensure the data cable is rated for the voltages it will be in close proximity to.
 A 120 Ohm terminating resistor may be required at the CATCH Relay terminals as shown in the diagram below if the cable run is longer than 10m.



RS485 A -> RJ45 Pin 8
 RS485 B -> RJ45 Pin 6



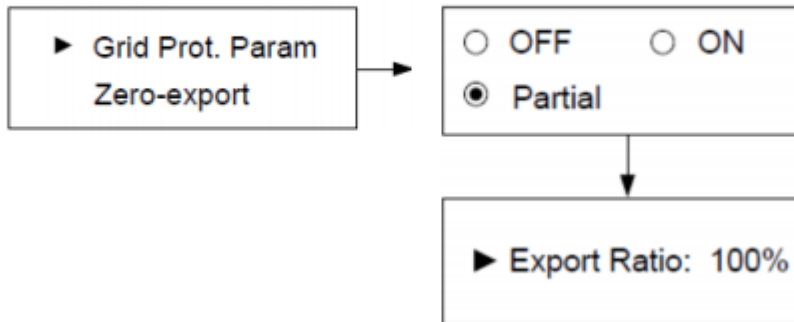
Plug into the **METER** receptacle



Inverter Setup – SG5K-D

The next step is to set the unit up for export control.

Enter into “Settings”, enter the password (111) and scroll to “Zero Export” and enter.



Export Ratio:

As an example value for this field. If you are configuring a 5kW inverter, and the export limit is 3kW. This should be set to $100 * 3\text{kw} / 5\text{kw} = 60.0$

IMPORTANT



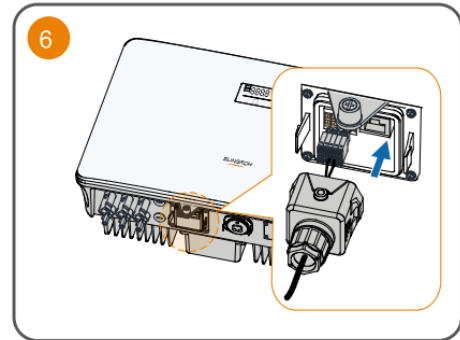
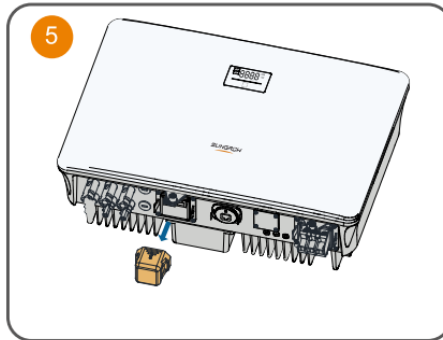
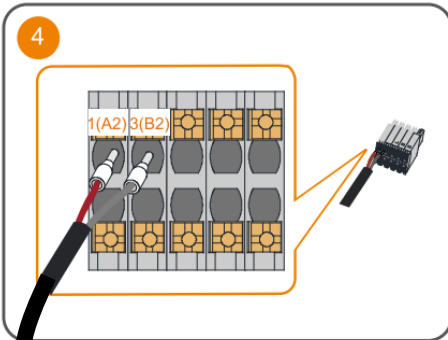
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Wiring Instructions – SGx-RS

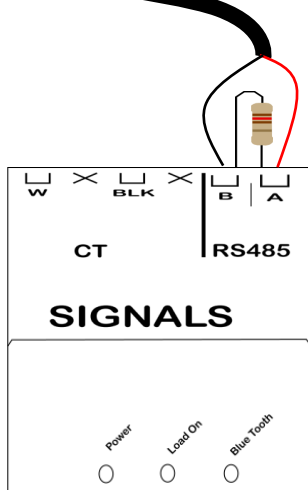
Ensure the data cable is rated for the voltages it will be in close proximity to.
 A 120 Ohm terminating resistor may be required at the CATCH Relay terminals as shown in the diagram below if the cable run is longer than 10m.



SG8.0RS

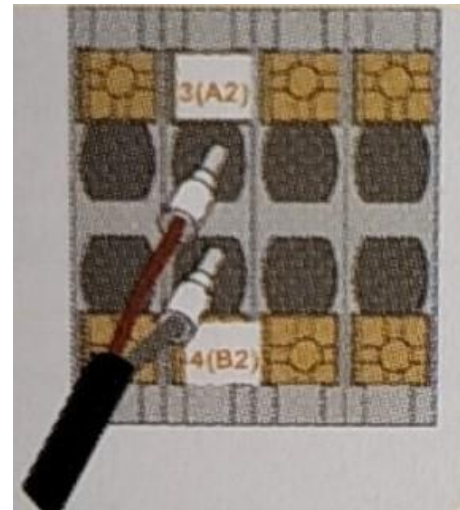


SG5.0RS



SG5.0RS
RS485 A -> 3(A2)
RS485 B -> 4(B2)

SG8.0RS
RS485 A -> 1(A2)
RS485 B -> 3(B2)



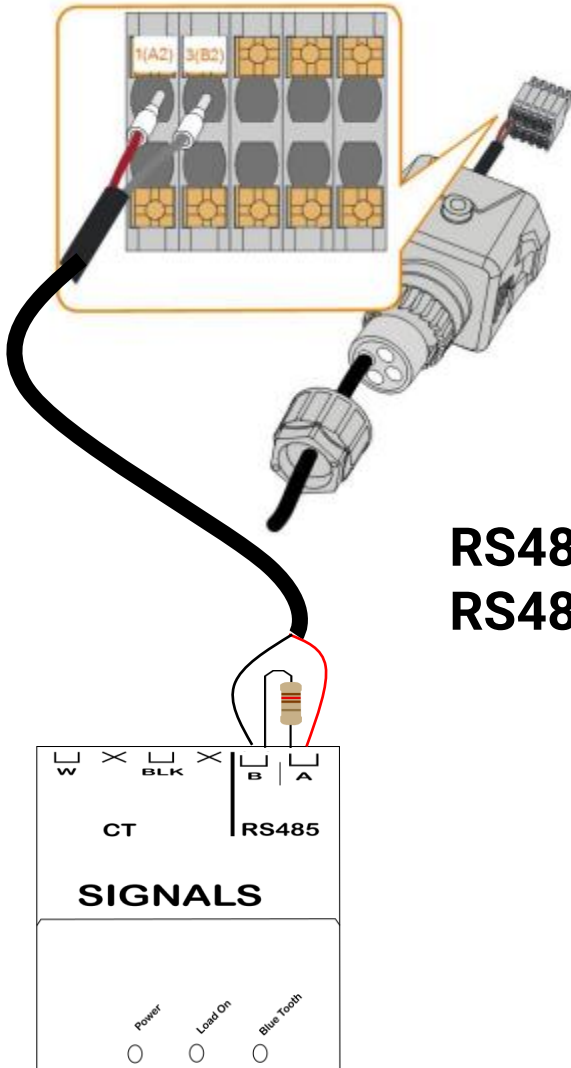
IMPORTANT



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



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

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 page, and under the Modbus configuration set the parameters as shown.

Modbus Configuration

Emulated Meter
SUNGROW S100

Cluster Export Limit
0

Modbus Device ID
32

Modbus Baud Rate
9600

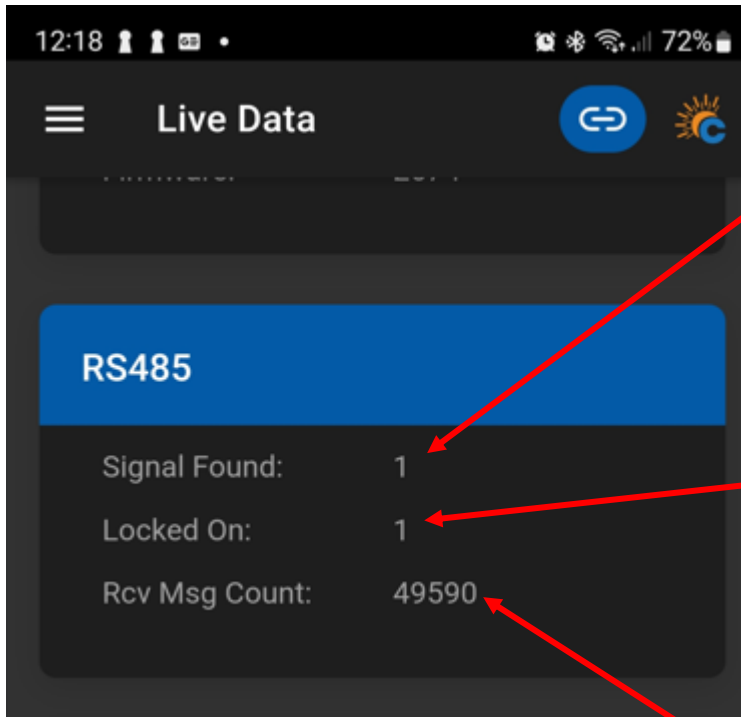
Modbus Stopbits
1

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 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.

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



NO NATIVE MONITORING

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



NO BATTERIES

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

Set the inverter export limit to **ZERO**

SUNSPEC Configuration

SUNGROW Does not support
SUNSPEC over modbusTCP



REGISTER SITE

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

DYNAMIC / FLEXIBLE EXPORT CONTROL