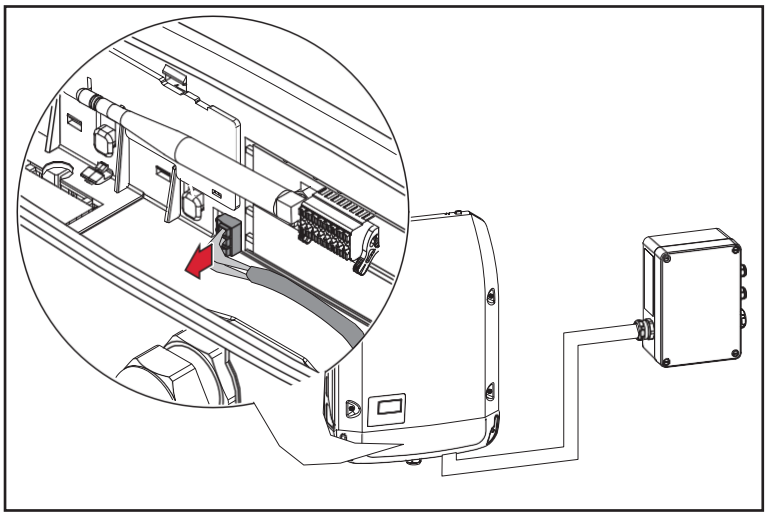
Testing Fronius Rapid Shutdown Box

Overview
The purpose of this document is to explain the operation and method for testing the Fronius Rapid Shut- down System comprised of a Rapid Shutdown Box and Fronius inverter. The information below will apply to all Fronius Rapid Shutdown solutions.

Operation principals
When activated, the RSB system will reduce the DC voltage between the inverter and the RSB to under 30V in 10 seconds or less, and fulfill all NEC requirements.
The RSB is connected with two wires to a floating switch contact with an orange plug in the data communication area of the inverter. The wiring of the RSB utilizes the normally open (NO) and common (COM) input terminal.
The RSB will start to discharge the voltage between the inverter and the RSB immediately when there is a break or an open circuit between the two signal wires. The inverter will automatically create an open circuit situation for the signal wires in the event that AC voltage is lost.

Testing procedure
It is easy to test, if the RSB is doing its job correctly:
- Follow the instructions in the inverter manual to properly remove the DATCOM cover of the inverter.
- Use the buttons under the display to navigate to the “Info” menu
- Use the buttons to scroll and select the option “measured values”, then “enter”.
- On the display you will be able to see the real-time value for DC Voltage.
- Once you are able to see this value, remove the orange plug connecting the signal wire from the RSB to the inverter.



- As soon as the plug is disconnected, you will see the voltage shown on the display drop to a value under 30V in 10 seconds or less.
- When floating switch wiring plug is reinstalled, the inverter will go through its startup procedure and resume normal operation.
- Reinstall the Datcom cover using proper torque settings.