

BW2031 J1939 to Modbus Interface Unboxing and Installation

AGENDA

- **WHAT'S IN THE BOX?**
- **WIRING CONNECTORS**
- **INSTALLING CONNECORS**
- **DIN RAIL MOUNTING**



WHAT'S IN THE BOX?

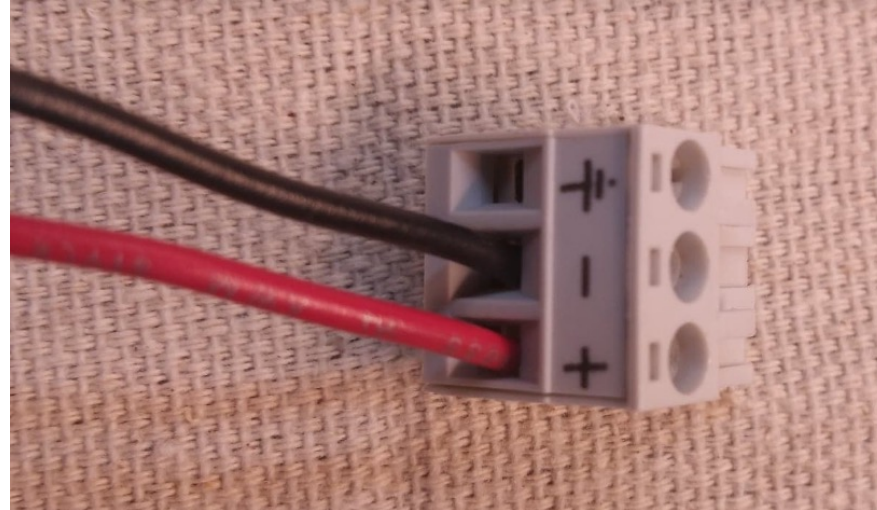
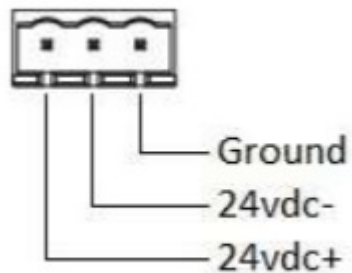
BW2031 J1939 to Modbus Interface

- 3-PIN Terminal Block Connector for DC Power
- 5-PIN Terminal Block Connector for J1939/CAN
- 6-PIN Terminal Block Connector for RS-485/Modbus RTU



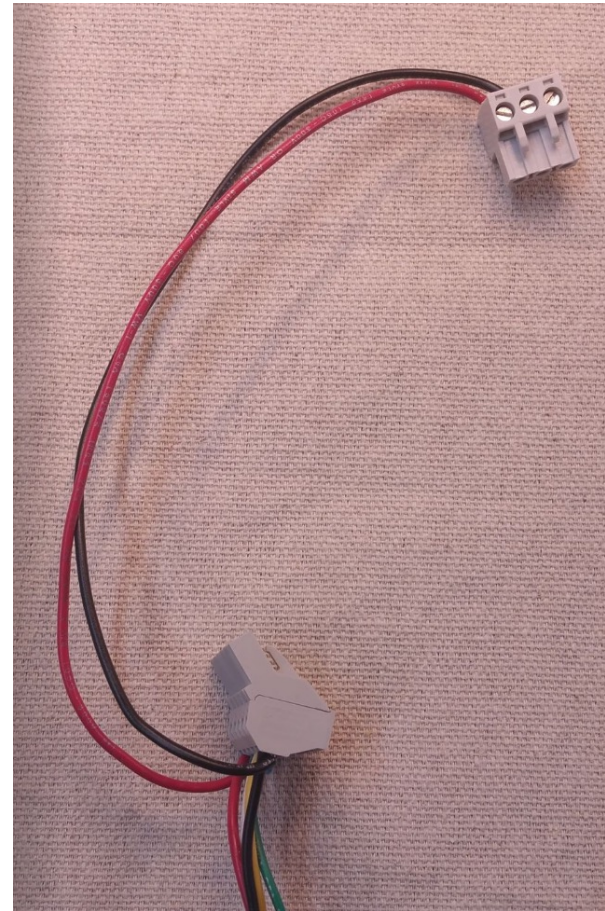
STEP 1: CONNECTING POWER

- Use small standard screwdriver to secure DC+ and DC- wires to 3-PIN connector as shown
- NOTE: BW4031 DC Power supply requirements are 7 to 40 volts DC, with the typical voltage being 24 volts DC.



CONNECTING POWER CONT.

- For device power, the wiring can be “daisy chained” from the CAN circuitry wiring installed in the next step




EARTH GROUND WARNING




⚠ WARNING

BridgeWay™ gateways are designed with noise and transient protection circuitry, but the module **MUST** be connected to an **Earth Ground** for this circuitry to be effective.

Earth Ground is separate from the DC power supply ground. Operation without proper grounding can **DAMAGE** the module.



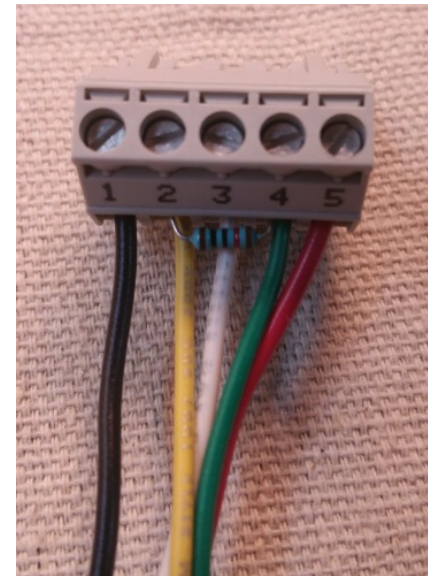
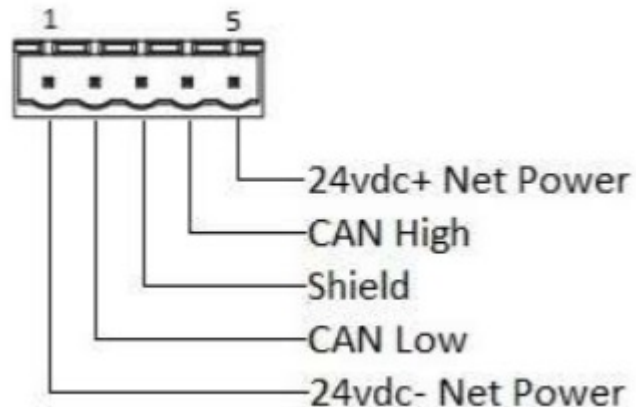
Earth Ground can be applied through steel DIN rail using the contact built into the BridgeWay 2.0 case as shown.



Earth Ground can also be applied through the power connector as shown.

STEP 2: CONNECTING J1939

- Use small standard screwdriver to secure CAN High, CAN Low and CAN Ground wires to 5-PIN connector as shown
- You will also need to connect 24V DC+ and DC- to power the CAN physical layer circuitry, which is separate from the main power installed at the top of the device.
- NOTE: The CAN Ground wire is for common mode protection and is connected to the CAN Ground (not DC or Earth Ground) of all other nodes on the network.

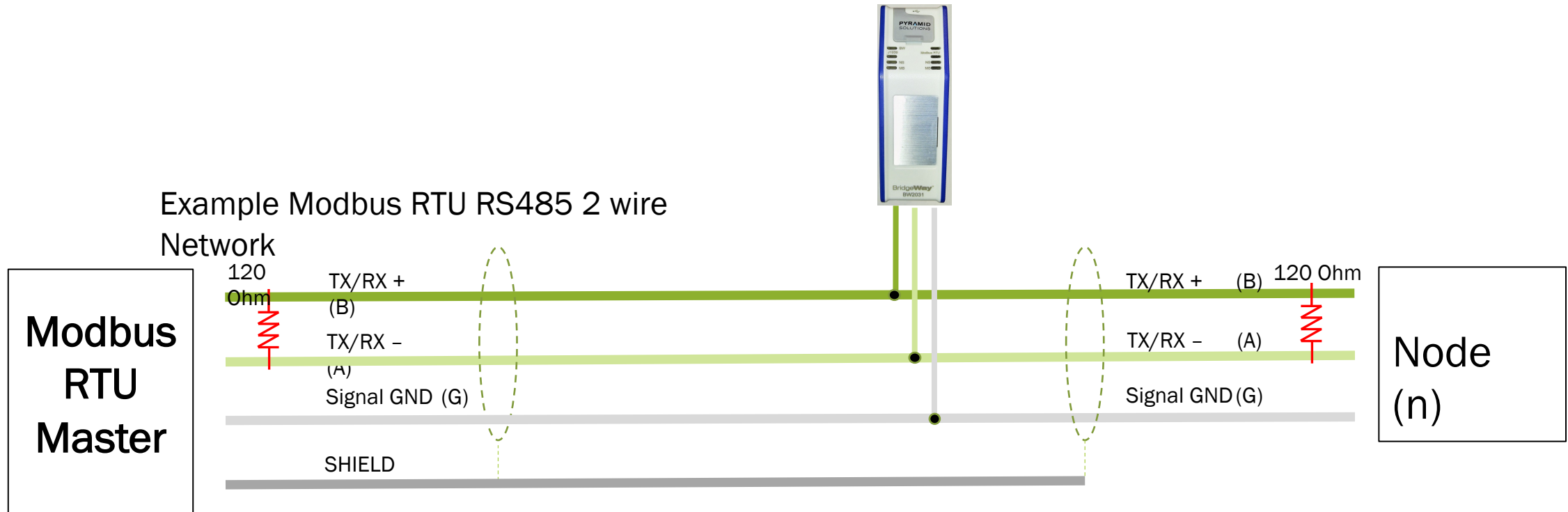


CAN NETWORK TERMINATION

- NOTE: the BridgeWay device does not provide CAN network termination internally.
- There should only be two (2) 120 ohm terminating resistors on the network and they should be placed at the ends of the network.
- A properly terminated network will measure approximately 60 ohms across CAN H and CAN L with all network connected devices powered off

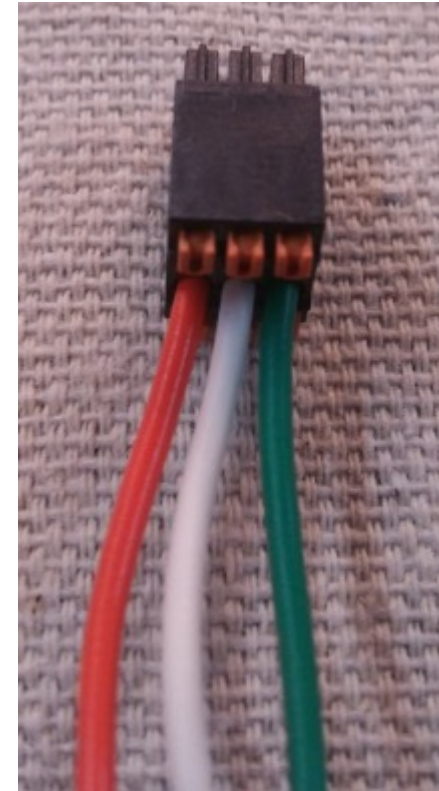
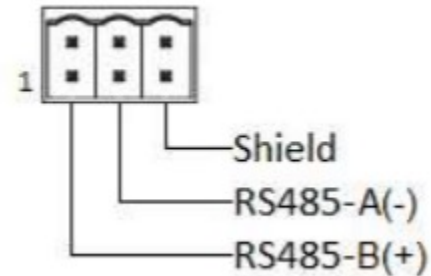


CAN NETWORK TERMININATION



STEP 3: CONNECTING MODBUS

- Connect RS-485-A, RS-485-B, and Shield wires to the 6-PIN terminal block connector
- NOTE: Remember the RS485 A and B signal lines should be connected to the A and B connections respectively on all devices on the network.



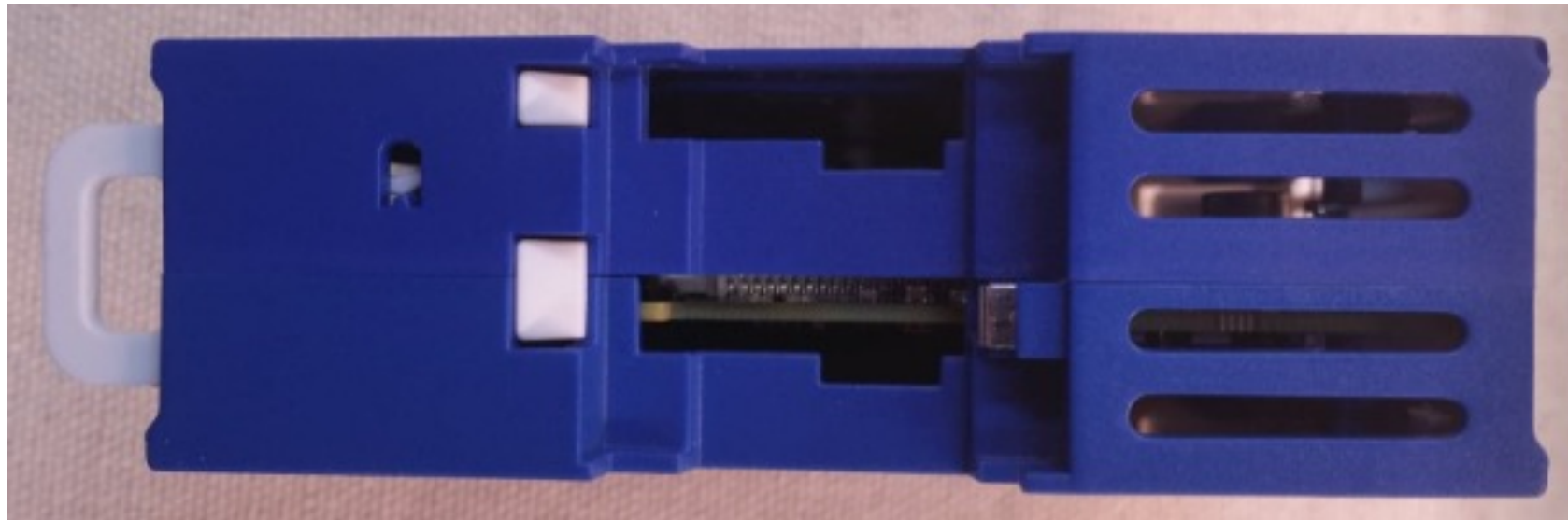
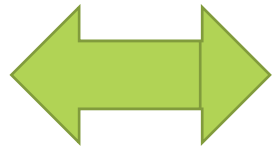
STEP 4: ATTACH CONNECTORS

- Install the 3-PIN terminal block connector to it's port located on the top of the BW2031
- Then install the 5-PIN and 6-PIN terminal block connectors in their respective ports located on the bottom of the device



STEP 4: DIN RAIL MOUNTING

- Make sure DIN rail locking tab is open on the back of the device
- Place the BW4031 on the DIN rail
- To secure the device to the DIN rail, push up on the locking tab



STEP 6: POWERING UP

- With everything connected, you can now power up the BridgeWay
- Once powered, the device will go through a short boot sequence lasting less than 10 seconds while the status light will blink 5 times.



INSTALLATION COMPLETE

- Your BW2031 installation is complete and ready for configuration
- See other BW2031 how-to's for further information

