

1. Unpack the monitor, antenna and the data/power cable. The 25 pin connector plugs onto the front of the OmniMetrix® monitor. This cable includes wires to power the monitor as well as wires for alarm inputs, relay outputs and analog inputs. Take a moment to inspect all components to verify there is no shipping damage.
2. Place the antenna vertically on the roof of the generator and route the antenna cable into the area of the generator control. The antenna used for transmitting must be installed to provide a separation distance of at least 20 cm from all persons and must not transmit simultaneously with any other antenna transmitters. BE SURE to provide a drip loop lower than the monitor to keep water from running down the antenna cable into the monitor connection.
3. Attach the monitor via its magnetic feet, on top of the engine controller or other appropriate location. Horizontal surfaces are best, but the unit may be mounted vertically or even upside down if necessary. *Note: If mounted vertically, install the monitor with the cables down to prevent water from entering the enclosure.*
4. Route the data/power cable through the cable entry on the bottom of the generator control.
5. To utilize the Modbus capabilities of the PowerZone, connect the OMN white (Data+) and green (Data-) wires to RS-485-3 and RS-485-4 as shown in the photo. Attach the antenna cable to the front of the monitor, and tighten thumb tight.
6. Turn on the monitor and confirm that the LEDs light up and blink. If not, check for power on the terminal strip. If, after 5 minutes, the only LED lit is the Power LED, check the antenna mount and cable connection.
7. Allow 15 minutes for the monitor to log into the network and then call OmniMetrix at 770-209-0012 to confirm installation. Access to machine data is through the OmniView® web interface at [www.omnimetrix.net](http://www.omnimetrix.net). Contact OmniMetrix for login instructions and web training.



Data / Power Cable



PowerZone Modbus  
RS485 connection

For Technical Support call 770-209-0012 or email us at [techsupport@omnimetrixconnect.com](mailto:techsupport@omnimetrixconnect.com)

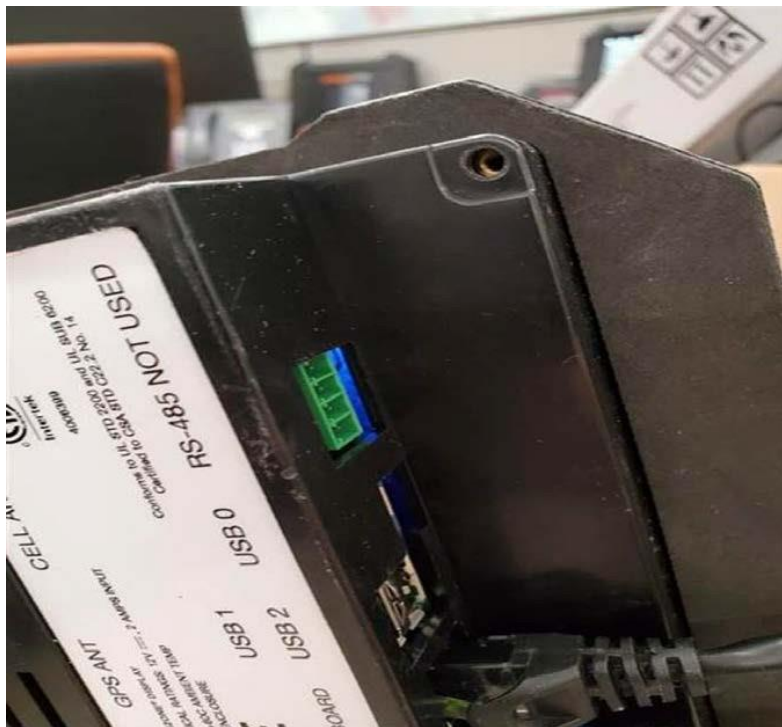
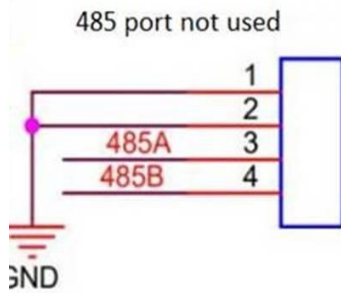
Table 1 – Wiring Modbus RS-485 on PowerZone Pro

Wiring Table		
OMN WIRE	Function	PowerZone Termination
Red	Power In (9-30 Vdc)	Battery +
Black	Ground	Battery -
White	RS485+	RS-485-3
Green	RS485-	RS-485-4

### How to Connect to RS-485 Feed:

The PowerZone display has a port labelled “RS485 not used.” This is where you will make the Modbus connection.

*The terminals are pictured below*



RS-485-1	Can be used to communicate via Modbus RTU (currently not implemented)	RS-485 Ground	
RS-485-2		RS-485 Ground	
RS-485-3		RS-485 +	
RS-485-4		RS-485 -	

Wiring Modbus RS-485 on Gateway Module PowerZone / PZ-PRO / PZ-Synch:

Wiring Table		
OMN WIRE	Function	Gateway Termination
Red	Power In (9-30 Vdc)	Battery +
Black	Ground	Battery -
White	RS485+	12-A
Green	RS485-	14-B

**Note:** A 5-pin connector will be needed to land wires on the RS-485 terminal.



Features - Power Zone® Gateway



The Power Zone® Connectivity Gateway is a user interface for the Power Zone® system that provides external communication via ethernet to a connected device such as a computer, smart phone or tablet. This external communication allows the user to configure or monitor generator parameters, including building management system connections.

Communications

- 1 - Ethernet Port
- 1 - RS485 Port - Input to Main Controller
- 1 - RS485 Port - Building Management
- 2 - Type A USB Port

**NOTE:** On most of the newer PowerZones, a Gateway Module should be present and if so, then modbus connections should be made on the Gateway module.

On the Connectivity Server, there's a USB port which can also serve as a RS-485 port using a USB to Rs-485 convertor as a last resort. Granted the convertor is end-user provided.

## Setting up Modbus RTU on PZ menu:

To enable Modbus RTU access, check the Modbus RTU checkbox and configure the RS-485 port settings as mentioned below:

1. Navigate to Communications → Modbus Pass Thru → Modbus RTU.
2. Set Serial Port = RS-485 Built In.
3. Baud Rate=9600
4. Parity = None
5. Stop Bits = 1
6. Unit ID = 1

