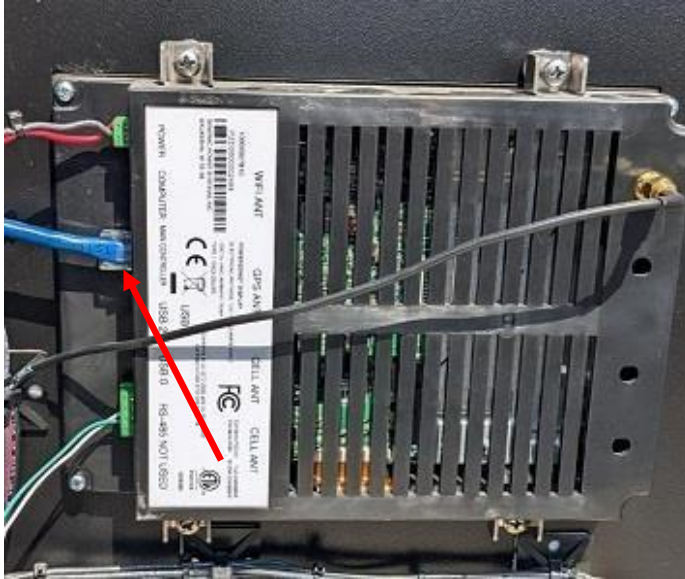1. Unpack the monitor, antenna, and the data/power cable. The 25-pin connector plugs onto the front of the OmniMetrix® monitor. This cable includes wires to power the monitor as well as wires for alarm inputs, relay outputs and analog inputs. Take a moment to inspect all components to verify there is 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. To utilize the Modbus TCP capabilities of the PowerZone, connect the grey Lantronix Module to the Omni and connect the Ethernet cable from the Lantronix to the Ethernet Ports available on the PowerZone.

5. There are different types of TCP connections for different types of PowerZones. Please wire accordingly.

6. Attach the antenna cable to the front of the monitor and tighten thumb tight.

7. 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.

8. 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.
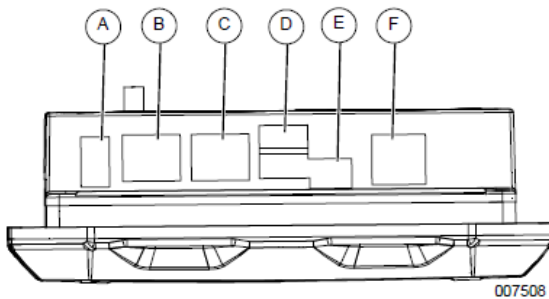

25-Pin Data/Power Cable

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P a g e | 1

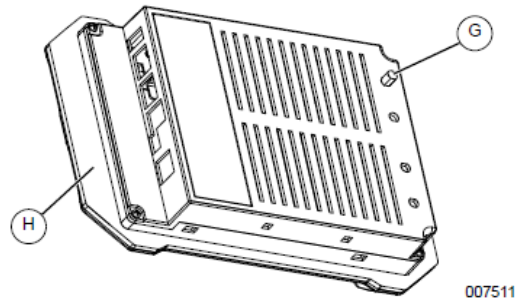## Wiring Modbus TCP Directly On PowerZone:

Component Locations

007508

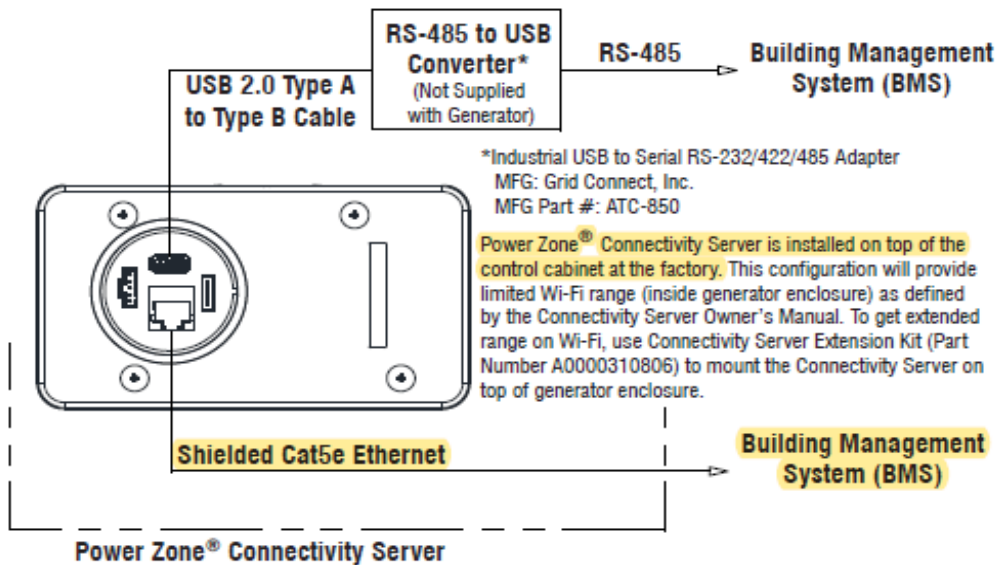| A	Power
B	Ethernet - external (computer)
C	Ethernet - Main Controller (baseboard)
D	USB 1 (top) USB 2 (bottom)
E	USB 0
F	RS-485

Figure 2-1. Component Locations

007511

G	Wi-Fi antenna
H	Gasket

Figure 2-2. Wi-Fi Antenna

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P a g e | **2**

On PowerZone PRO via Connectivity Server:

On PowerZone / PowerZone Synch via Gateway Module:


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
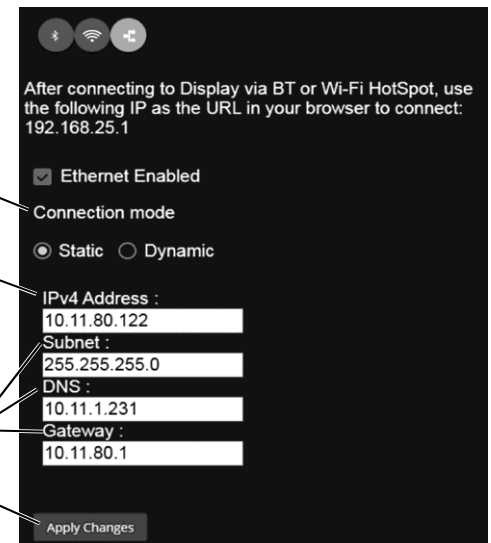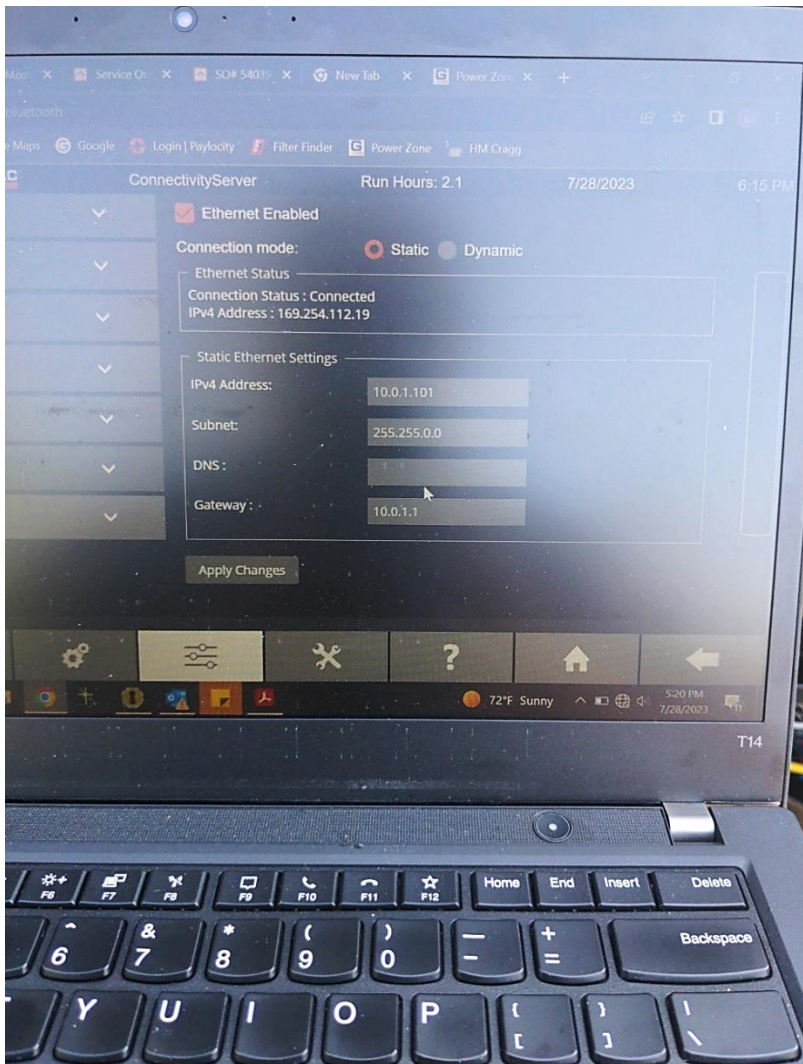- 1 - RS485 Port - Building Management
- 2 - Type A USB Port
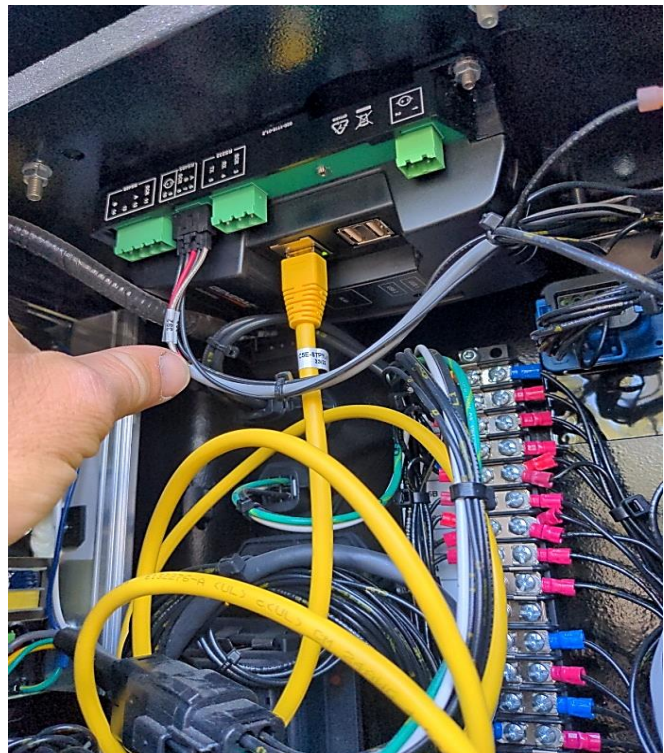
NOTE: On most of the newer PowerZones, a Gateway Module should be present and if so, then modbus connections should be made on the Gateway module.

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P a g e | **3**

Configuring Modbus TCP settings on PowerZone:

Static IP Address Configuration for ComputerPort

1. Navigate to **Setup** → Communications → Ethernet/Wi-Fi/Bluetooth.
2. In the "Connection Mode" setting, select "Static"(A).
3. This mode is selected to assign IP address (IPv4)to computer port interface (B).
4. IPV4 Address, Subnet, DNS and Gateway (C) are set to match the requirements of host network.
5. Click "Apply Changes" (D)

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P a g e | **4**

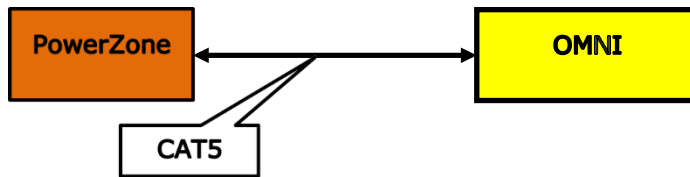For a **single** PZ control, set the following:

> Modbus Slave ID = 1
>
> IP Address: 10.0.1.101
>
> Subnet Mask: 255.255.0.0
>
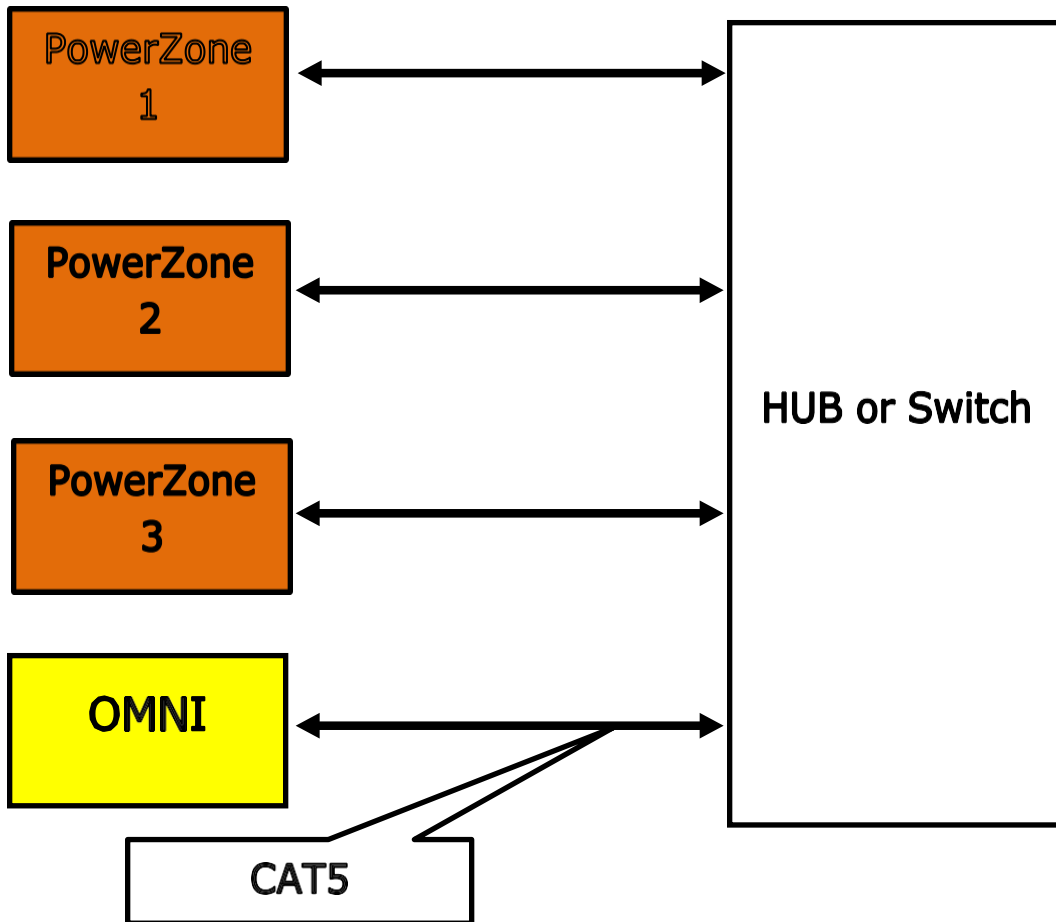> Gateway: 10.0.1.1 (this is not important)

For a **single** PowerZone, simply connect the OMNI and PowerZone via a CAT5 cable:

If **multiple** PZ controls are to be connected, such as in an MPS configuration, use the following:

MPS Gen #	Modbus Slave ID	IP Address	Subnet Mask
1	1	10.0.1.101	255.255.0.0
2	2	10.0.1.102	255.255.0.0
3	3	10.0.1.103	255.255.0.0
4	4	10.0.1.104	255.255.0.0
5	5	10.0.1.105	255.255.0.0
6	6	10.0.1.106	255.255.0.0
7	7	10.0.1.107	255.255.0.0
8	8	10.0.1.108	255.255.0.0

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P a g e | **5**

In the case of **multiple** PowerZone controls, connect the system using a Hub or Switch as shown. This Hub / Switch should be powered by a gensetbattery or other uninterruptible power source:

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P a g e | **6**

Last Step is to setup Modbus TCP Settings on PowerZone:

1. To enable Modbus TCP access, check the box labeled **Enable** under Modbus TCP.
2. Make sure to check the box labeled **Ignore Unit ID**.
3. Uncheck **Read Only** and **Require Authentication**, if check is present.

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P a g e | **7**