TrueGuard 2™ is for use on 12v systems only.

TrueGuard 2

1. Unpack the monitor and antenna. The data/power cable will be attached to your monitor. This cable includes wires to power the monitor as well as wires for alarm inputs and relay outputs. Take a moment to inspect all components to verify there is no shipping damage.
2. Place the antenna on the roof of the generator and route the antenna cable into the area of the generator controls. If the mounting surface will not hold a magnetic antenna, install the steel mounting plate provided on the generator roof, then the antenna. 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 prevent 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 into the generator control enclosure and make the 12 vdc power connections at this time.
5. **Non-encrypted Controllers**: (non-encrypted Modbus/data port) You can connect the monitor's serial data cable (White 8-Pin connector) into the controller's matching Modbus port (Page 2). In this case, none of the hardwired details below are required, though they can be utilized, if desired.
6. **Encrypted Controllers**: (encrypted Modbus/data port) The monitor connects to the generator controller using the monitor's wire harness. See Page 2, *TrueGuard 2 Hardwire Wiring Table*.
7. Once setup is complete, allow 15 minutes for the monitor to log onto the OmniMetrix network (observing LED behavior). Call OmniMetrix at 770-209-0012 to confirm installation, if needed. Access to machine data is through the OmniView® web interface at www.omnimetrix.net.

LED BEHAVIOR:

The BLUE LED will illuminate at boot up (stay on). The LED will start blink rapidly, on/off every 1/2 second, once the modem is connected to an available tower. The LED will begin to blink more slowly, three seconds on, three seconds off, once the modem has connected to the OmniMetrix server. Note: The BLUE LED is an indication of network service. If it continues to stay illuminated (on), please check the SIM card, antenna, and signal strength.

The RED LED will become solid approximately 20 seconds after the BLUE LED lights up. A solid RED LED indicates the unit is attempting to login to the server.

After 20 seconds, the RED LED is off and the GREEN LED is solid for 3 seconds. This indicates that the unit has successfully logged in to the server.

After login, a blinking Green LED indicates the unit is getting data and a long Red blinking LED indicates failure.

SIGNAL STRENGTH: LED signal strength indication is provided at login and routinely during operation, using the Red & Green LED's as follows:

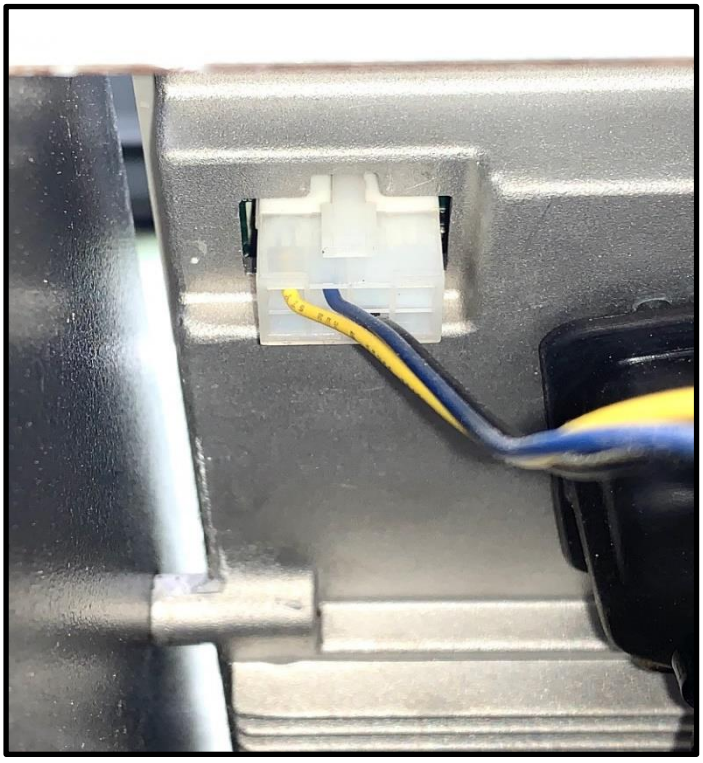
1. The Red & Green LED's flash rapidly for 2 seconds to indicate the beginning of the "Signal Strength" routine.
2. Next, the LED(s) will stay fully illuminated 2 seconds to indicate the current signal strength:
    a. Solid Red LED only = below 10
    b. Solid Red & Green LED's = 10~60
    c. Solid Green LED only = greater than 60.
3. To complete the Signal Strength cycle, the Red & Green LED's flash rapidly again for 2 seconds, then stop (end of cycle).

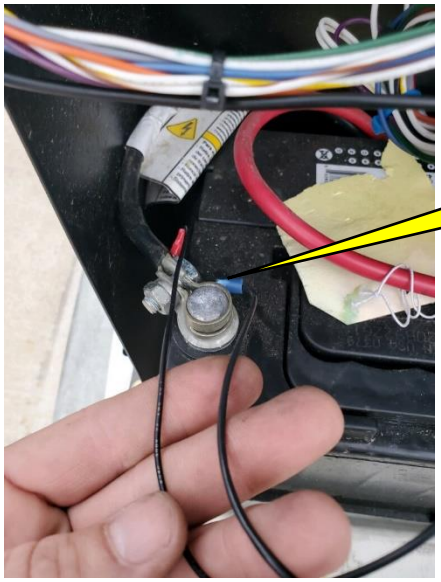
TrueGuard 2 Hardwire Wiring Table		
OMNIMETRIX WIRE	**TERMINATION**	**FUNCTION**
Red	Battery +	Power Supply +
Black	Battery -	DC Ground (Battery -)
Orange	Alarm Input 1 - RUNNING	Fuel Control Relay
Blue	Alarm Input 2 – COMMON FAULT	Common Fault Relay
Black	GND for Alarm Input 2	See Notes for Black Wire
Violet	Alarm Input 3 – ATS Position	On Gen Power / On Utility Power
Gray	Alarm Input 4 – Utility Voltage Lost	See AC Detector Wiring
White / Yellow	Stop/Start Relay Coil	Remote Start (see IM-1087 appendix-A)
White / Brown	DC Ground	Remote Start (see IM-1087 appendix-A)

If you have any questions, please call OmniMetrix Tech Support at 770-209-0012 or email at techsupport@omnimetrixconnect.com . See the diagrams on the following pages for added wiring assistance.

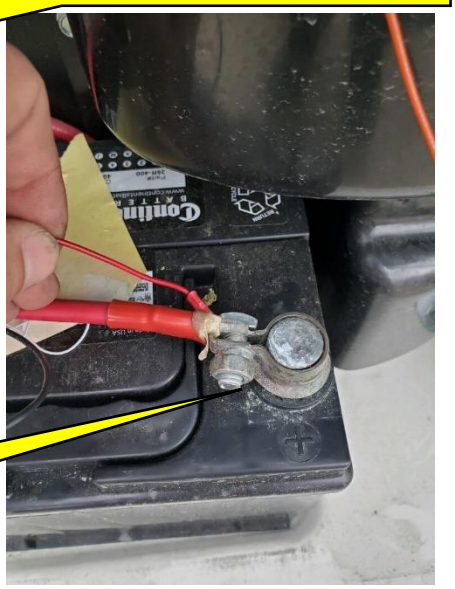
For Nexus and Evolution 1 & 2 controls, plug the white, OmniMetrix, 8-position connector into the data port on the back / bottom of the control, as shown to the right.

If the control is an Evolution 3, with encryption and without a data port, the hardwired instructions are to be followed.

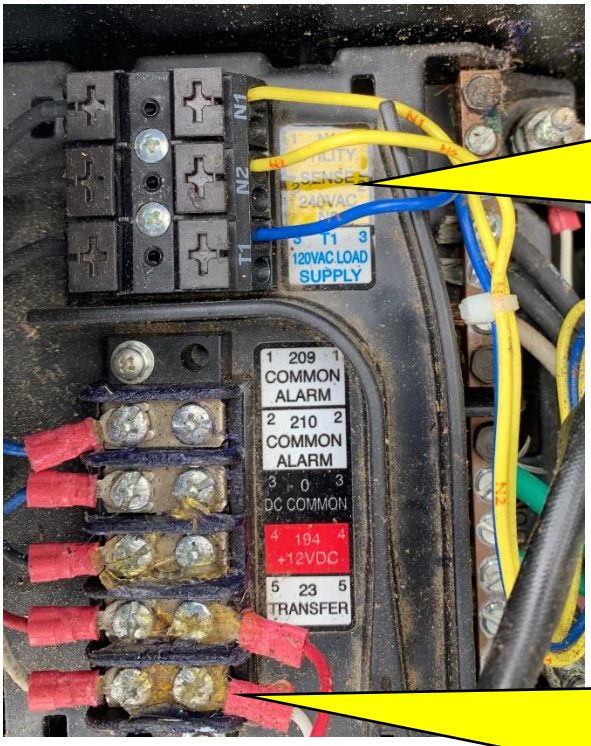




Attach OMNI Black wire with Ring Terminal to Battery Negative.



Attach OMNI Red wire with Ring Terminal to Battery Positive.



N1 and N2 are the two legs of Utility 240 VAC. T1 is 120 VAC brought to the battery charger from the house side of the ATS.

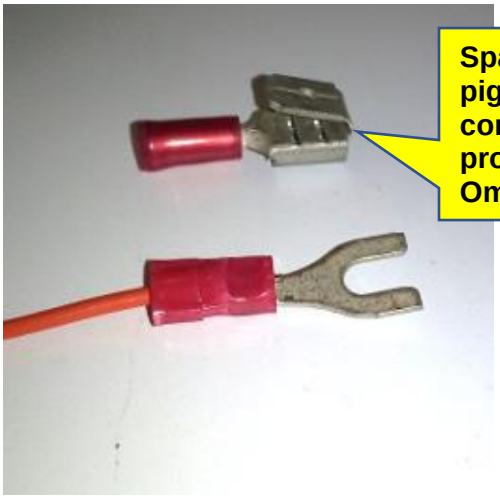
The AC Detector may be attached to ANY ONE of the three, depending on whether you want to report Lost Utility of Site Not Powered.

Generac signal 23 controls the contactor in the ATS. It will be 12Vdc in Utility Position, and 0 Vdc in Emergency.

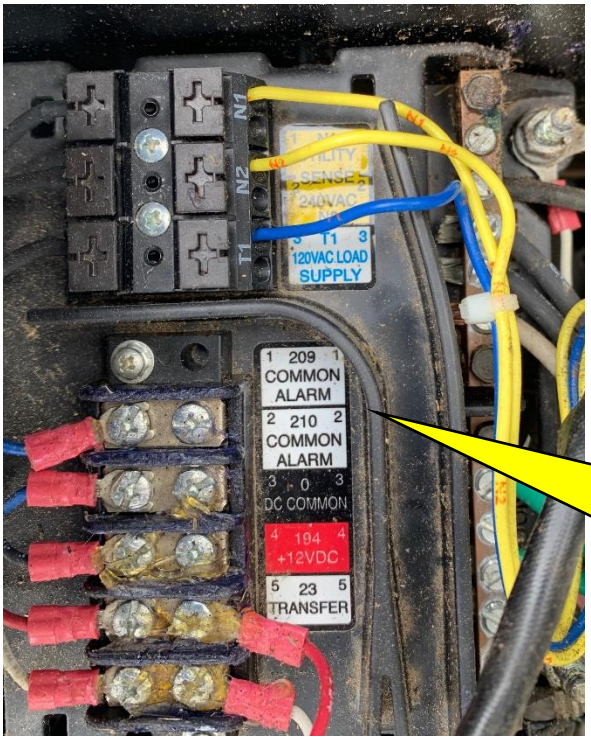
Common Alarm signals 209 and 210 are dry contact relay points. They close in a shutdown condition, indicating Common Alarm. In the Evolution 3, these two are pigtailed into a connector… see Page 4.

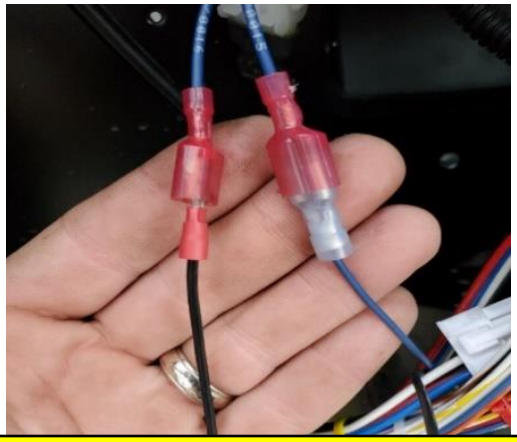
The Generac Red Wire on the Fuel Control Solenoid goes to +12 Vdc when running.

Put the piggyback Faston connector provided on the OmniMetrix Red wire, replacing the fork connector. Then unplug the Generac red wire, attach it to the auxiliary blade on the piggyback connector and plug the pair back onto the solenoid as shown below.

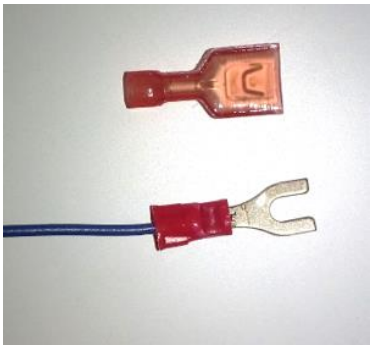


Spare, piggyback connector provided by OmniMetrix.



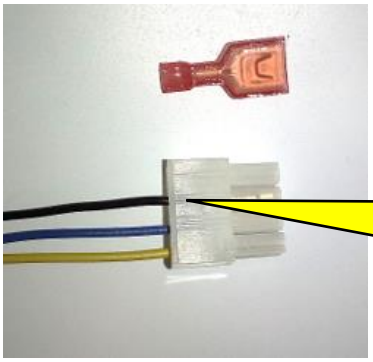


In older machines, the Common Alarm terminals are screw terminals, as shown. In the newest Evolution machines, the Common Alarm wires are pigtailed as shown above. The OmniMetrix Blue wire goes to one terminal / wire, and the other terminal / wire gets a DC Ground wire.

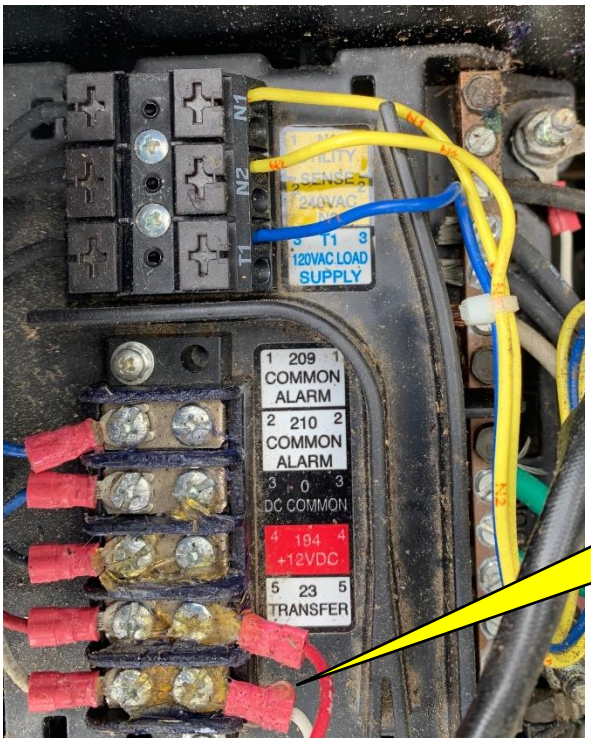


In older machines, land the OmniMetrix Blue wire on Generac terminal 209. You can ground terminal 210 to the DC Common terminal next to it.

For new Evolution machines, replace the fork terminal on the blue wire with the female Faston connector provided and plug it into one of the pigtailed Common Alarm



Assuming the OmniMetrix Serial Comms cable, with 8-position connector shown to the left, is not being used on the new Evolution machines, the black wire may be clipped near the connector and used as a DC Ground for the Common Alarm and/or the AC Detector described below. (You can use the Faston connector provided for this purpose, if needed).



Land the OMNI Violet wire on Generac Terminal 23.

OPTIONAL AC DETECTOR INSTALLATION: If you are using the OMNI AC Detector, it simply zip ties to either N1, N2, OR T1. These three wires MUST BE UNBUNDLED so that the detector can be attached to only one of them. Attaching to N1 or N2 will report lost utility. Attaching to T1 will report the home is unpowered.

Optional AC Detector wiring diagram: