

Installation Instructions

PTM2800 Mobile Generator/Asset Monitoring System



PLEASE READ ALL INSTRUCTIONS PRIOR TO INSTALLATION

You can mount the monitor to the asset now or wait until after the wiring is complete. You will want to plan your cable routing and mounting location to ensure the harness will reach all connection points. The monitor has two flanges at each side of the unit for mounting the monitor. The unit should be mounted on top of the asset for proper GPS coverage or a suitable location that has as much direct visibility to the sky as possible. A 144" cable harness provides the following input signals when connected to an engine or generator.

PIN	DESCRIPTION	Color
1	Primary Power/Battery Negative (-)	Black
2	Primary Power/Battery Positive (+7-30VDC)	Red
3	Ignition - Engine Run (+7-30VDC)	White
4	Input #1 (Dry Contact)	Blue
5	Input #2 (Cry Contact)	Orange
6	Ground (-) Input #1	Green
7	Ground (-) Remote Start/Stop Relay	Brown
8	Ground (-) Input #2	Yellow
9	Not Used	Green/Black
10	Not Used	Blue/Black
11	Not Used	White/Blue
12	ADC 1 – Analog Input (+)	Pink

Trailer Power/Engine Battery Connection

The monitor requires 7-30VDC power. This power can be derived from any power source including an engine battery, a trailer power harness, any external DC power source or an AC power source using a transformer with 12-24VDC output. The max power consumption is approximately 1A during continuous tracking.

- Remove the fuse from the battery lead fuse holder and keep secure for reinstallation at the end of the installation process or you can simply not connect power leads until the end of the installation process.
- Connect the **RED** Battery Positive (+) lead on the monitor harness to the battery positive fused lead with the ring terminal supplied (loose).
- Connect the **BLACK** Battery Negative Wire (-) on the monitor harness to the negative (-) battery terminal on the engine starting battery with the supplied (loose) ring terminal.
- **Do not power up the monitor yet. This will be done later in the process!**

Ignition Wire Connection

Connect the **White Ignition Sensing Lead** to the fuel solenoid/engine ECU power lead or an engine run relay. This connection can be made by connecting this lead onto the connection terminal of the fuel solenoid, to the appropriate terminal on the controller or by splicing onto the fuel solenoid power lead (quick splice connector supplied). This lead requires a positive (+) 12/24VDC supplied to it when the engine is running.

Digital (Dry Contact) Input Wiring

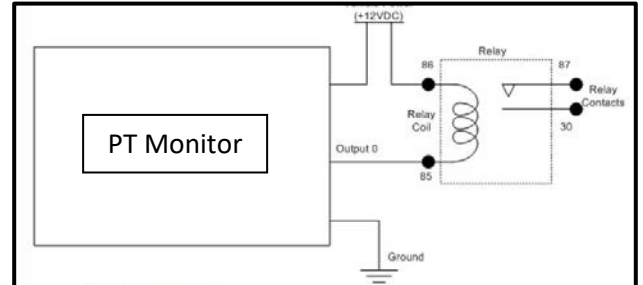
The digital inputs are used to signal a contact closing/opening to the monitor to send the event condition to the Power Link platform. The inputs are pre-programmed to use with a traditional normally open dry contact relay utilizing one of the ground leads supplied on the harness. Some generator controllers provide a positive voltage output on the output terminal contact on the controller. The monitor input is capable of being reprogrammed to change the bias of the input lead to receive a positive voltage to the input. In these applications, the ground lead is not required. Contact Power Telematics Customer Support to change the programming of the monitor (over the air) to correspond with the controller and outputs you are connecting to.

The PTM2800 has two (2) digital input leads labeled **Input #1 (BLUE)** and **Input #2 (ORANGE)**. Relay ground leads for these two inputs are **GREEN** and **YELLOW** which can be used with either input lead in conjunction with a set of dry contacts.

Common Fault Alarm Note: There is a 30 second delay for a common fault alarm to report. If you are testing the common fault alarm, be sure to leave the common fault alarm relay closed for at least 30 seconds.

Relay Driver Output

Remote Start/Stop- Output Lead #1 (BROWN) is used to provide a ground path to drive a 12VDC relay as shown on the above drawing to close remote start leads or open a sensing circuit to trigger a generator start.



Mount & Power Up the Monitor

After all wiring and mounting is complete, connect the power leads to power up the monitor.

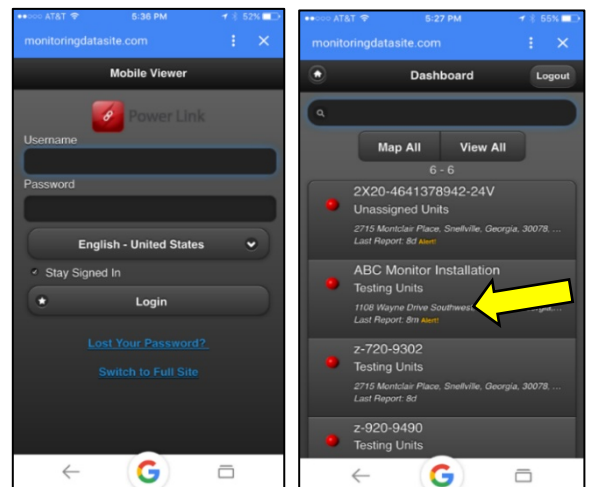
Initial “Power Up” Sequence: After you have connected Battery Power to the monitor harness, the unit will go through an initial “boot up” sequence. Both the **ORANGE** light (cell) and the **AMBER** light (GPS) will flash intermittently until the sequence is complete (usually a couple of minutes), then both lights will be solid.

Create an Event: You can close a set of contacts (jumper together) or start the engine manually and run for at least 10-15 seconds (if using ignition sensing). This will initiate an event signal to the monitor that will be transmitted to the user interface. Then open the contacts (remove jumper) or turn off the engine. This will initiate a second event to the platform.

Connection “Handshake” Acknowledgement - This step is to confirm that the event signal and initial “handshake” with the user interface is complete. This can be accomplished via the Power Link Mobile Viewer on your smart phone or on a computer connected to the internet.

Mobile Viewer Smart Phone Connection

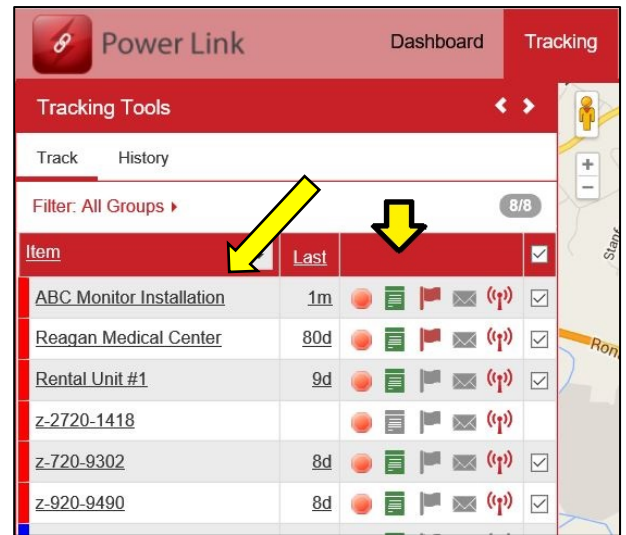
Open your internet browser and go to the web site www.monitoringdatasite.com to log in. You should see the Power Link Mobile Viewer log-in screen. Enter User Name and Password, then select Login. If you see the unit that you just installed listed, the “handshake” is complete. If you do not see the unit listed, verify that **BOTH** the **ORANGE** and **AMBER** lights are solid. If so, then run the generator again for 10-15 seconds, then turn the generator off. If you still do not see the unit listed after a few minutes, there may be a problem with your ignition wire connection (**WHITE**). You can then try another contact closure on the Input Connections to initiate a signal to the user interface to complete the “handshake”. You can simply ground one of the input connections (jumper) to simulate “closing the contact”, hold the connection for a few seconds, then open the contact (remove jumper). Check the mobile viewer again to see if the unit is now listed. If the unit is still not listed, call our technical support team at 678-992-5501 for troubleshooting assistance.



Computer Internet Connection

Open your internet browser and go to www.monitoringdatasite.com to log in. You should see the Power Link log in screen. Enter User Name and Password, then select Login. Select the **Tracking** tab. You will see the unit listed (list is sorted alphabetically). Once the unit has completed the initial “handshake” with the user interface, the Session Info Icon will change from gray to green. If the session info icon is green, and the monitor is located on the map, the “handshake” is complete.

If the icon is gray, verify that **BOTH** the **ORANGE** and **AMBER** lights are solid. If so, then manually run the generator again for 10-15 seconds, then turn the generator off. If you still do not see the unit listed, there may be a problem with your ignition wire connection (**WHITE**). You can then try another contact closure on the Input Connections to initiate a signal to the user interface to complete the “handshake”. You can simply ground one of the input connections to simulate “closing the contact”, hold the connection for a few seconds, then open the contact. Check Session Info Icon again to see if the icon is now green. If the icon is still not green, call our technical support team at 678-992-5501 for troubleshooting assistance.



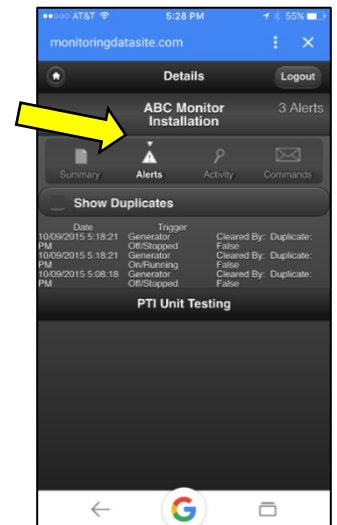
Test Input Connections

Once the unit is communicating with the user interface, you will be able to see the events sent from the monitor. It is a good idea to test all inputs and connections before leaving to make sure that the inputs are wired correctly and functioning properly. You can ground each input or place a jumper wire across the contact to ground the signal. Test each input and verify that the events are being received at the user interface.

Mobile Viewer Verification: You can view each of these events on the mobile viewer (Select the Unit and then select Alerts). This will show you each of the contact events you are testing as well as the generator run/off events.

Computer/Internet Verification: You can view each of these events on the user interface. Select the Tracking Tab, then click on the green Session Info icon. This will open the Session Info screen. Select the Events Tab and you should see the events.

Event Type	Event Name	Event Value
Event Code	(102) Generator Off/Stopped	102
Event Code	(101) Generator On/Running	101



That's it...you are all set. For any questions or need any assistance, please contact our support team.

Power Telematics, Inc.

3235 Satellite Blvd, Building 400, Suite 300 | Duluth, GA 30096

Phone 678-992-5501

Email info@powertelematics.com | www.powertelematics.com