

INSTALL GUIDE

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TUNet[®] PP-1316

ITRON SENTINEL[®] METER
READER



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SAFETY NOTICE



Warning

Energized meters, meter sockets and distribution lines present the risk of electrical shock. All work on this equipment should be performed by qualified metering specialists or industrial electricians.

Personnel working with this equipment should follow all utility company established operation and safety procedures.

REGULATORY NOTICES

FCC Part 15 Notice, USA

The transceiver described herein complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. The device may not cause harmful interference.
2. The device must accept any interference received, including interference that may cause undesired operation.

The device is specifically designed to be used under Section 15.247 of the FCC Rules and Regulations. Any unauthorized modification or changes to this device without the express approval of Tantalus Systems Corp. may void the user's authority to operate this device.

Furthermore, this device is intended to be used only when installed in accordance with the instructions outlined in the installation manual. Failure to comply with these instructions may also void the user's authority to operate this device.

IC RSS-GEN Notice, Canada

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Radio and Television Interference

The installation guidelines are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, you are encouraged to try and correct the interference by one of more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment on an electrical circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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1 :: Product Description

The Tantalus PP-1316 Itron SENTINEL® Meter Reader joins the wireless connectivity of an Itron SENTINEL® Commercial and Industrial 3 phase meter to the metering features of the TUNet communication system fixed network. The PP-1316 adds wireless, two-way communications and advanced monitoring capabilities including:

- Peak Demand Reset on request, or by schedule, or by custom date and time as commanded by the TUNet Network Server
- at Peak Demand Reset, provide non-coincident peak kW, kVAR & kVA, as calculated by the Sentinel meter
- kW, kVAR and kVA intervals for trending and profiling purposes
- voltage on all phases upon request, or by interval
- Upon request:
 - o co-incident values to the peaks (kW / kVA / kVAR) if configured in the meter
 - o cumulative kWh, kVAh, kVARh,
 - o the current values for non-coincident peak kW, kVAR & kVA

The PP-1316 Meter Reader configures the Itron SENTINEL® data for transport via the network to the Tantalus NS-2000 series Network Server.

Figure 1: Itron SENTINEL® Commercial and Industrial 3 Phase Meter



1.1 Product Specification: PP-1316 C&I Meter Reader

Frequency Range	902-928 MHz frequency hopping, license exempt
Operating Temperature	-22 to 140°F (-30 to +60°C)
Modulation	FSK
Power Consumption	Active Power: 2 watts
Operating Humidity	5% to 95% non-condensing
900 MHz Antenna (Part 15)	Antenna within sealed meter not accessible to installer/operator.
Standards	<ul style="list-style-type: none">• FCC CFR Title 47 Part 15c (Intentional Radiators)• ANSI C12.1:2008 Compliant• CFR Title 47 Part 15b (Unintentional Radiators)

2 :: Installing the PP-1316

Before the PP-1316 can be installed, the Itron SENTINEL® must be programmed with initial configuration settings.



Warning

Energized meters, meter sockets and distribution lines present the risk of electrical shock. All work on this equipment should be performed by qualified metering specialists or industrial electricians. Personnel working with this equipment should follow all utility company established operation and safety procedures.

2.1 Equipment Required

The following equipment is required to program the Itron SENTINEL®:

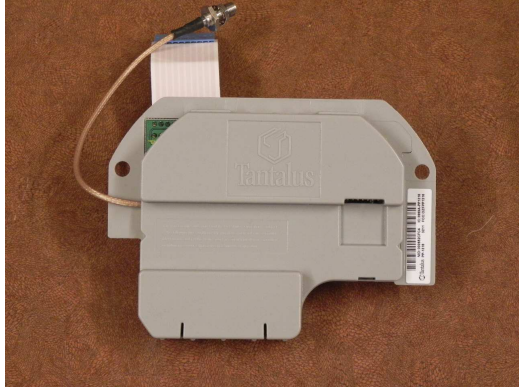
- Meter socket (or equivalent) to power up the meter to be programmed
- ANSI Type 2 optical coupler
- Itron Communication Manager Version 9.5 or later
- Windows XP compatible computer

2.2 Installing PP-1316 Components

PP-1316 Components List (Separate Assemblies)

The PP-1316 is compatible with all Itron SENTINEL® meter forms. The following parts are supplied with the PP-1316 installation kit:

1. Tantalus communication module, P/N 120-0215

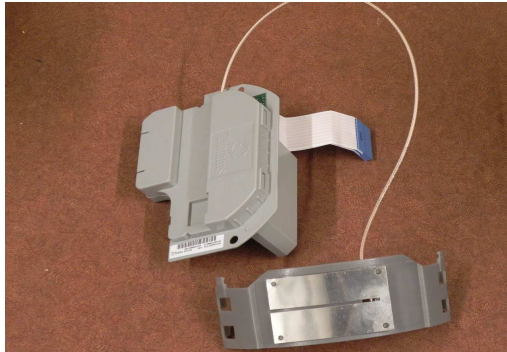


2. Tantalus antenna bracket, P/N 260-0055



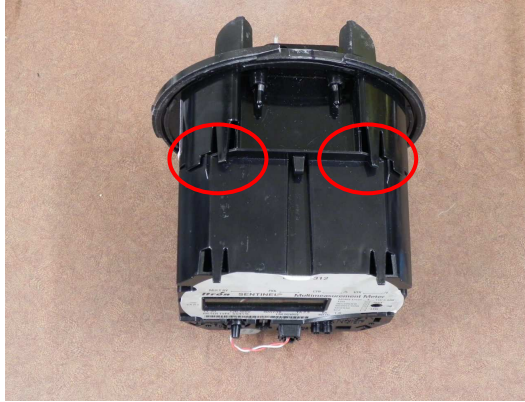
PP-1316 Components List (Single Assembly)

1. Tantalus communication module, P/N 120-0215-A

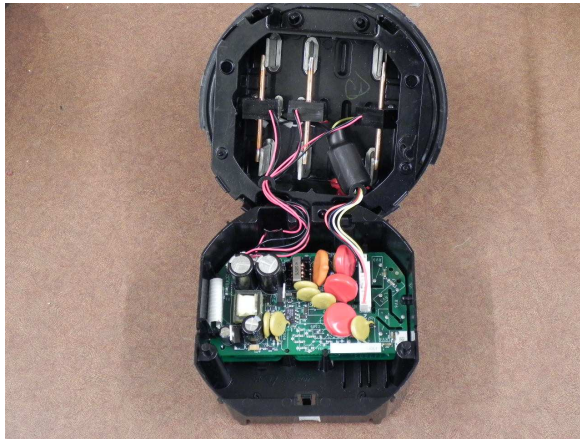


2.2.1 Installing PP-1316 Components into the Itron SENTINEL® Meter

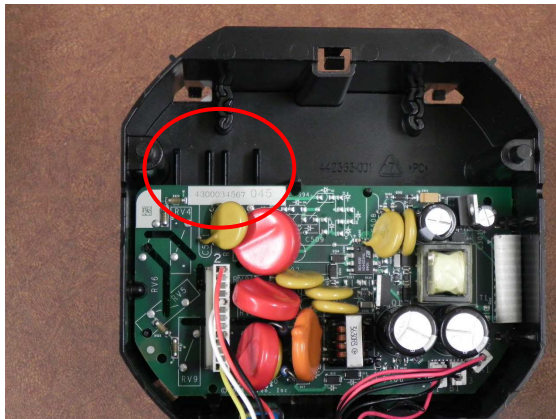
1. Remove the outer plastic cover from the Itron SENTINEL®.
2. Unclip the Itron SENTINEL® display housing from its base by gently lifting the snap features in two locations.



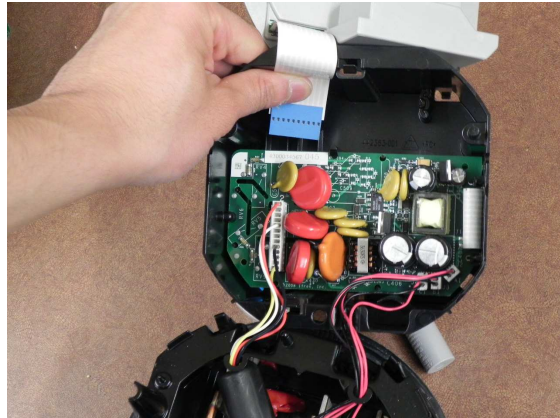
3. Slightly tilt the display housing away from the base to disengage the two pieces.



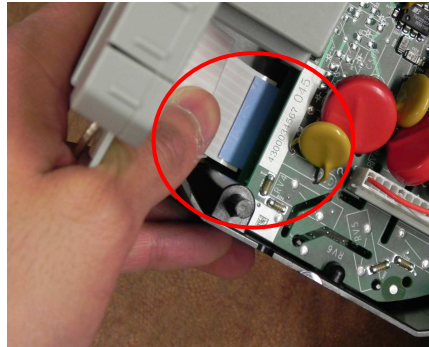
4. Locate the set of four parallel ridges inside the display housing.



5. Insert the Tantalus communications module ribbon cable between the two outer ridges. The ribbon cable should fit snugly between the two ridges.



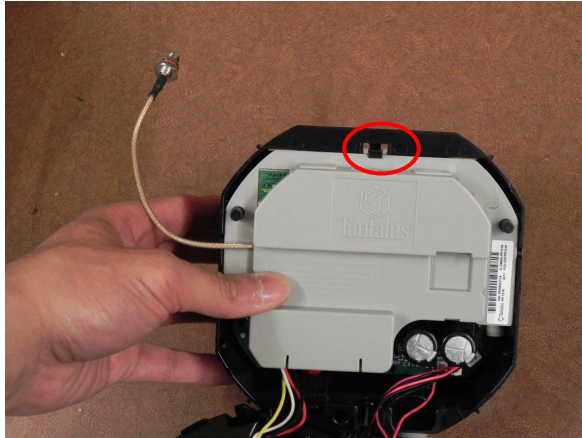
6. Firmly press the ribbon cable connector against the mating header underneath the Itron SENTINEL® communications board. To ensure proper connectivity, verify that the ribbon cable connector is inserted as shown in the following figure:



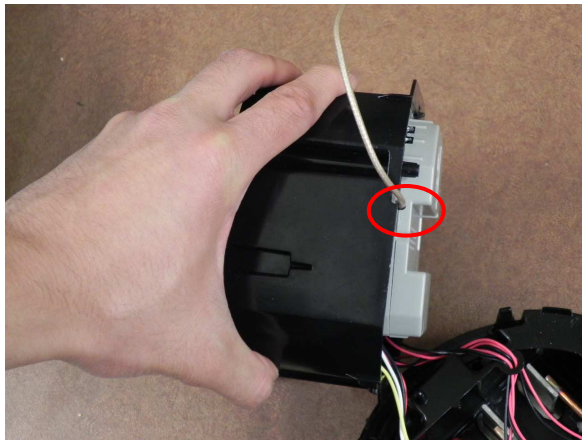
Note: If the connector was not engaged properly, there will be a visible row of crimps on the blue ribbon cable connector, as shown in the following figure:



7. Situate the PP-1316 module within the cavity inside the display housing. Ensure that the clip on the top of the display housing is used to lock down the PP-1316 module.



8. Ensure that the coaxial cable falls within the hole on the side of the display housing.



9. Snap the display housing back on the base of the meter. Ensure that all four outer snaps are engaged.



10. Snap the Tantalus bracket on the top of the meter. Also, there is a clip on the side of the bracket which guides the coaxial cable. Ensure the coaxial cable is placed inside the clip. If the coaxial cable has SMA RF connectors, mate them together.



11. Place the outer cover back over the Itron SENTINEL® meter.



2.3 Configuring the Meter

**** TBD ****

3 :: Contact Information

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