

Water Solutions

80W-i Endpoint Installation Guide

Putting knowledge to work.

Identification

80W-i Endpoint Installation Guide
11/12/2009 TDC-0830-002

Copyright

© 2008 - 2009 Itron, Inc. All rights reserved.

Compliance Statement

FCC ID: Pending

This equipment complies with subpart C of part 15 of FCC Rules. Operation of this device is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference that may cause undesirable operation.

IC ID: Pending

This equipment complies with policies RSS-210 and RSS-GEN of the Industry Canada rules. Operation is subject to the following two conditions:

- This device may not cause interference, and
- This device must accept any interference, including interference that may cause undesired operation of the device.

Note: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

Trademark Notice

Itron is a registered trademark of Itron, Inc.

All other product names and logos in this documentation are used for identification purposes only and may be trademarks or registered trademarks of their respective companies.



Warning Follow these procedures to avoid injury to yourself or others:

- The lithium battery may cause a fire or chemical burn if it is not disposed of properly.
- Do not recharge, disassemble, heat above 100° Celsius (212° Fahrenheit), or incinerate the lithium battery.
- Keep the lithium battery away from children.
- Replace the lithium battery only with batteries meeting Itron specifications. Any other battery may cause a fire or explosion.



Warning This unit cannot be modified and is not repairable. Modification of this device could cause non-compliance with FCC rules. Attempts to modify this device will void the warranty.

Transportation Classification

The Federal Aviation Administration prohibits operating transmitters and receivers on all commercial aircraft. When powered, endpoints are considered operating transmitters and receivers and cannot be shipped by air. All product returns must be shipped by ground transportation to Itron.

Suggestions

If you have comments or suggestions on how we may improve this documentation, send them to TechnicalCommunicationsManager@itron.com

If you have questions or comments about the software or hardware product, contact Itron Technical Support:

Contact

- Internet: www.itron.com
- E-mail: support@itron.com
- Phone: 1 800 635 8725

Contents

Chapter 1 80W-i Endpoint	1
Product Highlights	1
80W-i Ordering Information	1
Related Documents	2
Documentation Convention	2
Chapter 2 Installing the 80W-i.....	3
Attaching the 80W-i Endpoint to an Itron Water Meter	4
Optional Remote Antenna Installation	6
Mounting the Remote Antenna	6
Installing in a New Lid.....	8
Required Tools and Hardware	8
To install the remote antenna in new pit lids	8
Chapter 3 Programming the 80W-i	9

CHAPTER 1

80W-i Endpoint

The Itron 80W-i combines Itron Cyble and water endpoint technologies to create a powerful AMR module. 80W-i endpoints are bubble-up meter transceivers operating in the 900 MHz unlicensed radio frequency band. Utilizing an integral mounting design, the 80W-i is attached directly to the Itron Flostar, Multimag, or Woltex water meter (with the three-tab housing) using a single mounting screw. This streamlined mounting method eliminates wire connections providing a trouble-free installation.

The 80W-i endpoint transmits a consumption message at two power levels giving utilities the option to migrate from an Itron ChoiceConnect drive-by solution (standard power) to a ChoiceConnect fixed network solution (high power) without changing the meter or endpoint. When combined with the superior low flow metrology of Itron single jet meters, 80W-i endpoints deliver accurate consumption data over a wide range of flow rates.

Product Highlights

The 80W-i features:

- A "no-wire" design
- Multiple power output
- Migration to Fixed Network without meter or endpoint replacement
- Programmable dial resolution (down to 1/10th gallon)
- Leak detection
- Tamper detection
- Reverse flow detection

80W-i Ordering Information

Description	Part Number
80W-i Endpoint (packaged 24 per box) Box includes: Size T15 Torx screws (packaged 25 per kit) Blue magnetic tamper seals (packaged 25 per kit)	ERW-0776-001

Related Documents

Document	Part Number
Endpoint Link Installation Guide	TDC-0758-002
Endpoint Link Pro Installation Guide	TDC-0786-002
Endpoint Link Configuration Guide	TDC-0670-007
Endpoint Link Programming Guide V5.3	TDC-0744-003
Endpoint Link Configuration Checklist	TDC-0671-010
Endpoint Link Checklist Guide	TDC-0672-009

Documentation Convention



Warning A Warning alerts you of potential physical harm to the user or hardware. Pay careful attention to Warning notes, read the information carefully, and follow the advice, instructions.

CHAPTER 2

Installing the 80W-i

The 80W-i can be installed and programmed (see [Programming the 80W-i](#) on page 9.) before or after Itron meter installation. Verify the Flostar meter register housing is the three-tab design. Screws and tamper seals to attach the endpoints are included with each 80W-i.



Required Tools and Hardware

- Flostar meter with three-tab housing
- Itron 80W-i Endpoint
- Blue magnetic tamper seal
- Stainless steel Torx screw
- Size T15 Torx screwdriver
- Small regular-tip screwdriver



Attaching the 80W-i Endpoint to an Itron Water Meter

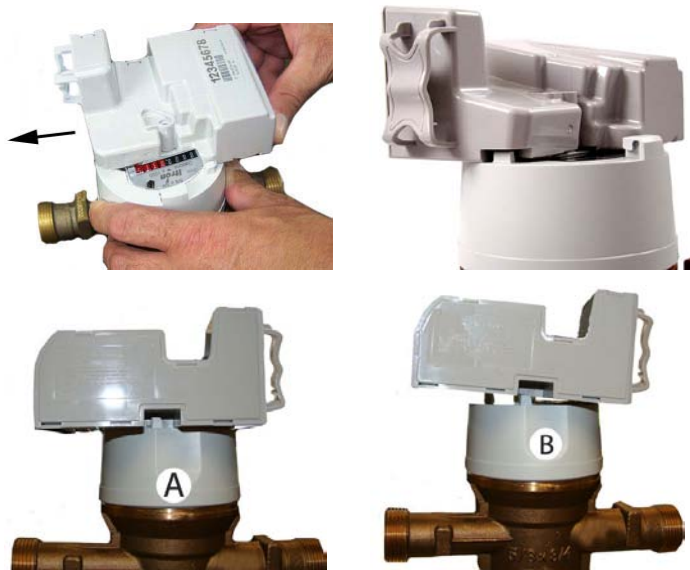


Warning Field retrofit applications require a clean register. Use a damp towel to clean the register cover and meter lens including the mounting tabs, screw plug, and lens covering of the Cyble target.

1. Using a small, standard tip screwdriver, unscrew the hole protector on the register cover.



2. Align the register housing mounting tabs with the 80W-i slots and carefully slide the endpoint onto the meter as shown. When correctly installed, the endpoint will lie flat on the register surface.



A. Correctly mounted 80W-I B. Incorrectly mounted 80W-i

Warning Carefully align the register housing mounting tabs and the 80W-i slots before sliding the 80W-i into its mounted position. Use care when sliding the 80W-i into position to ensure a snug fit as shown. Verify the 80W-i fits securely over the register surface without a gap. When attaching the 80W-i module in a pit box, confirm the endpoint is properly mated by feeling under the endpoint with your fingertips to verify all three mounting tabs are seated in the appropriate slots and there are no gaps between the endpoint and the register. After you have confirmed there are no gaps, secure the endpoint to the register housing with the supplied mounting screw.

3. Insert the Torx mounting screw and hand tighten to a firm resistance. Do not over-tighten the mounting screw.



Warning Do not use an electric screwdriver. A power tool could over-tighten the screw and damage the register's plastic housing.

4. Insert a blue tamper seal into the matching location over the screw. Ensure the seal is firmly seated around its perimeter.



Note Applying the blue tamper seal places the endpoint into programming mode for 15 minutes. If the seal is removed after programming, the endpoint will sense the removal and advance the 'cut-cable' tamper value.

Optional Remote Antenna Installation

The optional 80W-i 900 MHz remote mount antenna provides increased RF range coverage for:

- Endpoints located deep in a pit boxes.
- Endpoints submerged in water for extended periods of time.
- Fixed Network systems.

This section provides antenna mounting instructions through a pit lid and the instructions to connect the antenna to the 80W-i.

Mounting the Remote Antenna

Metal lids on water pit boxes require a through-lid solution for optimal endpoint radio performance. The remote antenna is designed to fit in a pit lid hole with a circumference between 1 3/4" to 2" and a lid thicknesses from 1/2" to 1 3/4".

To mount the optional remote antenna through a pit lid

1. Insert the remote antenna into the hole in the pit lid with the convex surface on the top of the pit lid. (These instructions show a simulated pit lid material.)



- From the bottom side of the lid (picture below shows inverted lid), screw on the threaded collar.



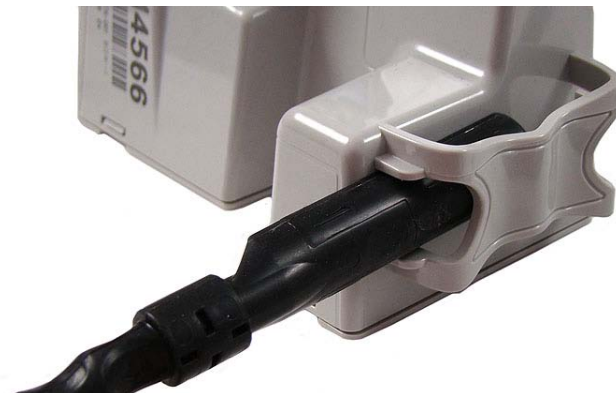
Note Ensure the beveled edge (1) of the threaded collar is toward the top of the lid (2).

- Turn the threaded collar until it is tight against bottom of the pit lid. Verify the antenna dome does not move up and down or shift laterally .



To connect the remote antenna coupler to the 80W-i endpoint

- Insert the remote antenna cable coupler into the 80W-i endpoints antenna slot with the flat side of the coupler against the 80W-i housing.



2. Push the antenna coupler into the 80W-i antenna slot until the coupler end (1) reaches the bottom edge of the 80W-i. The antenna coupler notch will rest on the antenna coupler bracket (2).



Remote antenna installation is complete.

Installing in a New Lid

This section describes installation of the 80W-i endpoint in a pit lid without a drilled hole.

Required Tools and Hardware

- Drill
- 1 3/4-inch drill bit appropriate for the lid material



Note The Remote Antenna is not intended for applications involving vehicular traffic. Use the Remote Antenna in incidental traffic areas (such as residential environments).

To install the remote antenna in new pit lids

1. Select a hole location with enough clearance on the bottom side of the lid to attach the retainer clip collar and cable ties or threaded clip collar.
2. Drill a 1 3/4 inch hole in the lid.
3. Install the remote antenna in the lid as shown in [Mounting the Remote Antenna](#) on page 6.

Programming the 80W-i

Required Programming Hardware and Software

- Itron FC200SR loaded with Endpoint Link Software, version 5.3.1 or higher
- 80W-i Endpoint Configuration File loaded in the FC200SR Handheld. (The configuration file is unique for each utility.)

The 80W-i activates for programming when the blue tamper seal is installed. Tamper seal installation initializes a 15-minute programming period when the FC200SR is used to program meter parameters from the Endpoint Configuration File, the beginning meter index value, and desired resolution.

After the 15-minute programming period expires, the 80W-i enters a normal operating mode unless Quiet Mode was enabled in the configuration file. Quiet Mode places the endpoint in a hibernation state until consumption is detected. When consumption is detected, the 80W-i will switch to its normal operating state. Re-programming the 80W-i requires placement of the Itron pen magnet (MLD-0175-001) over the tamper seal for a approximately 4 seconds. Remove the pen magnet after the wait-time elapses.



To request an Endpoint Configuration File, contact support@itron.com. Within two weeks, you will receive log-on information and download instructions for your new Endpoint Configuration File from our secure Itron website.

If you need assistance loading the handheld with your Endpoint Configuration File, contact Itron 80W-i Support at 1-800-635-8725

The Endpoint Link or Endpoint Link Pro Programming Guide (V5.3 or later) can assist users with Endpoint Link Software navigation or programming options for the 80W-i.