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Home / Solutions / Automated Meter Reading (AMR)

## Meter Data Collection

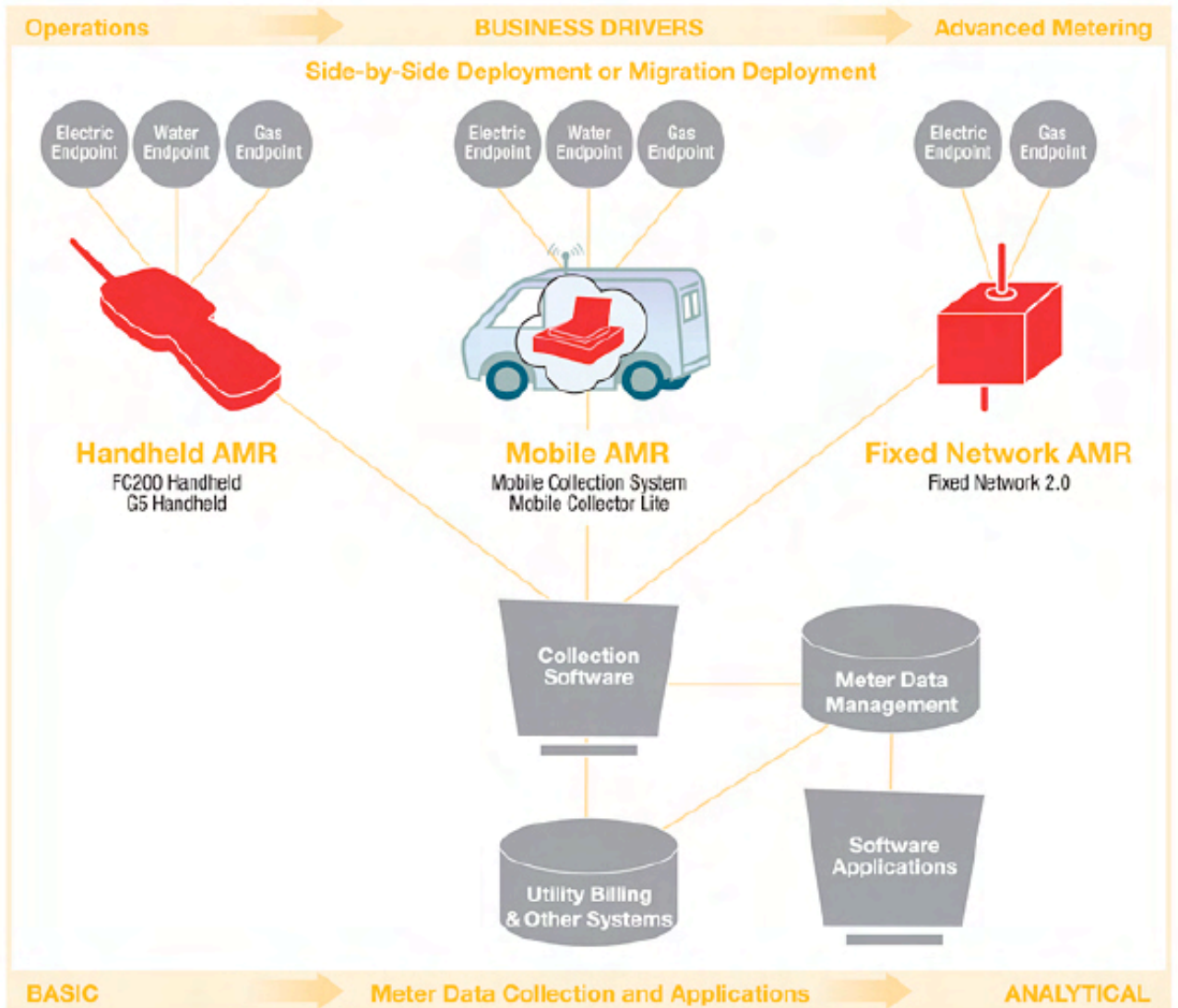
### Solution Description

ChoiceConnect™

The cost savings, efficiency gains, customer service improvements and revenue cycle enhancements provided by automation of the meter reading function are reasons why many leading utilities of all types and sizes continue to deploy meter reading technologies—such as drive-by solutions. As business needs and regulatory conditions drive the need for advanced technologies, fixed networks are fast becoming the smart choice for many utilities.

### Fixed Network Architecture

# ChoiceConnect™ Architecture



## Solution Details

Itron's proven approach to meter reading technologies is ChoiceConnect, our proven ERT-based platform that automates costly manual meter reading systems and addresses the specific needs of utilities of all sizes and service types. Our suite of handheld and mobile AMR solutions is proven to significantly reduce labor costs, increase billing accuracy and improve customer service. By implementing ChoiceConnect Fixed Network technology over the same meters or endpoints, utilities can enjoy key advanced metering benefits, such as interval data collection, on-demand reads, positive outage and restoration notification and system integrity.

### The ChoiceConnect Advantage

Utilities that have deployed ChoiceConnect solutions experience the following benefits:

- Reduced exposure to the risks associated with rapidly evolving technology.

- Cost-effective deployment strategies that include handheld and mobile solutions where optimal, and the advanced fixed network when needed.
- Collection flexibility from handheld monthly consumption reads, efficient mobile reads and interval reads from a fixed network.
- Ability to migrate from handheld and mobile reading systems up to the advanced functionality of a fixed network when deploying electricity and gas endpoints.
- Improved return on metering investments by eliminating stranded assets and large investments in costly billing system integrations.
- Increased operational efficiency and reduced operation and maintenance costs.
- Improved customer service and satisfaction.
- More effective field service workforce management.

# **Water Meter Compatibility List**

**Revision C, October 2006**



## Water Meter Compatibility for 900 MHz ERT® Products

Listed below are the meter types currently compatible with Itron's Water ERT meter modules. Due to continuous research, product improvements and enhancements, Itron reserves the right to change product or system specifications without notice.

### 50W, 50W-2, 60W ERT Modules

Manufacturer	Meter Model	Register Model	Size From	Size To	Meter Type	ERT Type	ERT Part Number	Installation Kit*
AMCO/ABB/ Kent	C700 <sup>1</sup>	Digital <sup>2</sup>	5/8"	2"	Compound	50W-2 AMCO Digital Pit	ERW-0153-501	CFG-0010-004
						50W AMCO Digital Direct Mount 50W AMCO Digital Remote	ERW-1008-501 ERW-1008-501	SCR-0010-001 CFG-0067-002
AMCO/ABB/ Kent	C3000	Digital <sup>2</sup>	2"	8"	Compound	50W-2 AMCO Digital Pit	ERW-0153-501	CFG-0010-004
						50W AMCO Digital Direct Mount 50W AMCO Digital Remote	ERW-1008-501 ERW-1008-501	SCR-0010-001 CFG-0067-002
AMCO/ABB/ Kent	T3000	Digital <sup>2</sup>	1 1/2"	12"	Turbine	50W-2 AMCO Digital Pit	ERW-0153-501	CFG-0010-004
						50W AMCO Digital Direct Mount 50W AMCO Digital Remote	ERW-1008-501 ERW-1008-501	SCR-0010-001 CFG-0067-002
AMCO	Any meters that accept InVISION or Scancoder registers	InVISION Or Scancoder <sup>3</sup>	All	All	Positive Displacement	50W-2 AMCO InVISION Pit	ERW-0153-505	CFG-0010-004
						50W AMCO InVISION Direct Mount 50W AMCO InVISION Remote	ERW-1008-506 ERW-1008-506	None CFG-0067-001
						60W Encoder—AMCO Protocol Inline Connector	ERW-0771-201	CFG-0771-001 for 1 3/4" lid mounting hole. Also use CFG- 0771-002 for 2" mounting hole.
						60W Encoder—AMCO Protocol 5 ft. cable for direct connection	ERW-0771-211	
AMCO/ABB	AquaMaster	AquaMaster	All	All	Magnetic Flowmeter	50W-2 AMCO Scancoder Pit	ERW-0153-503	CFG-0010-004
						50W AMCO Scancoder Remote	ERW-1008-506	CFG-0067-001
AMCO/ABB	V100T (PSMT) <sup>12</sup>	.N/A	15 MM	40 MM	Positive Displacement	50W-2 AMCO Digital Pit	ERW-0153-501	CFG-0010-004
						50W AMCO Digital Remote	ERW-1008-501	CFG-0067-002
Badger	Any meters that accept RTR, Dual RTR or these registers used with Summator/Splitter or Badger's Submersible Connector	RTR, Dual RTR	5/8"	20"	Disc, Turbo Compound, Combo and Fire Series	50W-2 Badger RTR Pit	ERW-0153-501	CFG-0010-004
						50W Badger RTR Remote <sup>4</sup> 50W Badger RTR Direct Mount	ERW-1008-501 ERW-1008-501	CFG-0067-002 None
Badger	Any meters that accept the ADE register	ADE <sup>5</sup>	5/8"	20"	Disc, Turbo Compound, Combo and Fire Series	50W-2 Badger ADE Pit	ERW-0153-502	CFG-0010-004
						50W Badger ADE Remote 50W Badger ADE Direct Mount	ERW-1008-505 ERW-1008-505	CFG-0067-002 None
						60W Encoder—Sensus Protocol Inline Connector	ERW-0771-202	CFG-0771-001 for 1 3/4" lid mounting hole. Also use CFG- 0771-002 for 2" mounting hole.
						60W Encoder—Sensus Protocol 5 ft. cable for direct connection	ERW-0771-212	
Metron Farnier	Any meters that accept the OER register	OER <sup>5</sup>	5/8"	6"	Single Jet	50W-2 Metron OER Pit	ERW-0153-502	CFG-0010-004
						50W Metron OER Remote	ERW-1008-505	CFG-0067-002
						60W Encoder—Sensus Protocol Inline Connector	ERW-0771-202	CFG-0771-001 for 1 3/4" lid mounting hole. Also use CFG- 0771-002 for 2" mounting hole.
						60W Encoder—Sensus Protocol 5 ft. cable for direct connection	ERW-0771-212	

\* Not needed for 50W-2 and 60W modules installed below pit lids.



## 50W, 50W-2, 60W ERT Modules

Manufacturer	Meter Model	Register Model	Size From	Size To	Meter Type	ERT Type	ERT Part Number	Installation Kit*
Hersey	400IIS	ER	5/8"	1"	Positive Displacement	50W-2 Hersey Pit	ERW-0153-501	CFG-0010-004
Hersey	500IIS	ER	1 1/2"	2"	Positive Displacement	50W-2 Hersey Pit	ERW-0153-501	CFG-0010-004
Hersey	MVR	ER	1 3/4"	6"	Vertical Turbine	50W-2 Hersey Pit	ERW-0153-501	CFG-0010-004
Hersey	MHR	ER	2"	10"	Horizontal Turbine	50W-2 Hersey Pit	ERW-0153-501	CFG-0010-004
Hersey	MCT II	ER	2"	8"	Compound	50W-2 Hersey Pit	ERW-0153-501	CFG-0010-004
Hersey	MFM II	ER	3"	10"	Fireline	50W-2 Hersey Pit	ERW-0153-501	CFG-0010-004
Hersey	Any meters that accept Translator register	Translator	All	All	Positive Displacement, Turbine, Compound and Fireline	50W-2 Hersey Translator Pit	ERW-0153-502	CFG-0010-004
						50W Hersey Translator Remote	ERW-1008-505	CFG-0067-002
						60W Encoder—Sensus Protocol Inline Connector	ERW-0771-202	CFG-0771-001 for 1 3/4" lid mounting hole. Also use CFG-0771-002 for 2" mounting hole.
						60W Encoder—Sensus Protocol 5 ft. cable for direct connection	ERW-0771-212	
Invensys/ Precision	PMM <sup>6</sup>	PMM <sup>7</sup>	5/8"	1 1/2"	Multi-Jet	50W-2 Precision Pit	ERW-0153-501	CFG-0010-004
Invensys/ Sensus/ Rockwell	Any meters that accept ICE or ECR registers	ICE and ECR <sup>8</sup>	All	All	Positive Displacement, Turbo, Compound & Multi-Jet	50W-2 Sensus Pit	ERW-0153-502	CFG-0010-004
						50W Sensus Remote	ERW-1008-505	CFG-0067-002
			All	All	Positive Displacement, Turbo, Compound & Multi-Jet	60W Encoder—Sensus Protocol Inline Connector	ERW-0771-202	CFG-0771-001 for 1 3/4" lid mounting hole. Also use CFG-0771-002 for 2" mounting hole.
						60W Encoder—Sensus Protocol 5 ft. cable for direct connection	ERW-0771-212	
Neptune/ Schlumberger	Any meters that accept ProRead or ProRead AutoDetect registers	ProRead <sup>10</sup> ProRead AutoDetect <sup>11</sup>	All	All	Positive Displacement, Turbine, Compound & Fire Service	50W-2 Neptune ProRead Pit	ERW-0153-504	CFG-0010-004
						50W Neptune ProRead	ERW-1008-504	CFG-0067-002
						60W Encoder—Neptune Protocol Inline Connector	ERW-0771-205	CFG-0771-001 for 1 3/4" lid mounting hole. Also use CFG-0771-002 for 2" mounting hole.
						60W Encoder—Neptune Protocol 5 ft. cable for direct connection	ERW-0771-215	
	Any meters that accept ARB V	ARB V	All	All	Positive Displacement, Turbine, Compound & Fire Service	50W Neptune ARB V Remote <sup>9</sup>	ERW-1008-503	CFG-0067-002
						60W Encoder—Neptune Protocol Inline Connector	ERW-0771-204	CFG-0771-001 for 1 3/4" lid mounting hole. Also use CFG-0771-002 for 2" mounting hole.
60W Encoder—Neptune Protocol 5 ft. cable for direct connection	ERW-0771-214							
Actaris	Flostar	Cyble Sensor <sup>13</sup>	5/8"	6"	Single Jet	50W-2 Sensus Pit	ERW-0153-501	CFG-0010-004
						50W Sensus Remote	ERW-1008-501	CFG-0067-002
		Cyble Coder <sup>14</sup>	5/8"	6"	Single Jet	50W-2 Sensus Pit	ERW-0153-502	CFG-0010-004
						50W Sensus Remote	ERW-1008-505	CFG-0067-002
						60W Encoder—Sensus Protocol Inline Connector	ERW-0771-202	CFG-0771-001 for 1 3/4" lid mounting hole. Also use CFG-0771-002 for 2" mounting hole.
						60W Encoder—Sensus Protocol 5 ft. cable for direct connection	ERW-0771-212	

\* Not needed for 50W-2 and 60W modules installed below pit lids.

Note: 50W, 50W-2 and 60W modules are FCC and Industry Canada approved.

**Notes:**

- 1 - Itron not compatible with 1 ½” and 2” imperial gallons, US gallons “high speed” and cubic feet “high speed” C700 meters with Digital registers.
- 2 - Compatible with AMCO Digital registers with tamper reed switch.
- 3 - Compatible with AMCO Scancode 500ms delay register (serial number from AMCO starts with 4, 5 or 6). (Note 3 is only applicable to 50 series ERT modules)
- 4 - Badger supplies cable with RTR for remote.
- 5 - Operational Temperature limited to: -10° C to +60° C (14° F to 140° F)
- 6 - For ECR III AMR SYSTEM register on PMM meter refer to ERT part numbers under Invensys/Sensus.
- 7 - Compatible with Precision PMM registers with 4 mounting holes that accept Precision’s blue housing reed switch assembly with 4 mounting screws.
- 8 - Compatible with all ECR variants and configurations excluding 8 wheel. Register must be programmed as normal or classic reading string and multiplier as well as units of measurement must be disabled.
- 9 - Neptune’s ARB V register is compatible with 50W only.
- 10 - Neptune’s ProRead register must be programmed with Neptune ProRead Portable Programmer as follows:

RF/MIU ID SINGLE
DC: E65N or E49N UC: X
ID: X                      00

Where X is noted above, whatever value is programmed is irrelevant to the ERT since this information will not be captured in the ERT’s Standard Consumption Message.

DC Signifies “Dial Code” and suggest model E65N registers be programmed with this value (i.e. 6 encoded wheels with the resolution of last encoded wheel being 0 or 5). Suggest E49N registers be programmed with this value (i.e. 4 encoded wheels with the resolution of last encoded wheel being 0 through 9).

- 11 - Use same ERT as ProRead. ProRead AutoDetect register does not need to be programmed to work with ERT.
- 12 - The V100T is the only approved model of the V100 meter family and is only authorized when using AMCO/Elster meter probe From Table 1. Table 2 lists the V100T meter configurations approved for use.
- 13 - The Cyble Sensor pulser module must be configured with a K factor of 10 therefore the least significant consumption value is not reported in the ERT Standard Consumption Message (SCM).
- 14 - The Cyble Coder must be programmed for 7 digits. This will prevent the rightmost register wheel value from being reported in the ERT Standard Consumption Message (SCM). Ensure Coder consumption value is programmed to match meter register value before connecting to ERT module.

**Table 1**

AMCO Order Number	Probe Part Number	Description
2545Q0001	59600-445-5	5ft. Cable – No Connector
2545Q0002	59600-445-ILC	5ft. Cable with Inline Connector
2545Q0003	59600-635	8" Cable used for Direct Mount
2545Q2452	59600-445-25	25ft. Cable – No Connector

**Table 2****Approved V100T Meter Configurations**


Size	Units	Max. Flow	Pulse Value
15mm	m <sup>3</sup>	3 cmh	5 liters
	Imp. Gallons	11 gpm	0.5 gallons
	Imp. Gallons	11 gpm	5 gallons
	US Gallons	13.2 gpm	
	ft <sup>3</sup>	1.77 cfm	0.5 cu.ft.
20mm	m <sup>3</sup>	5 cmh	5 liters
	Imp. Gallons	18.3 gpm	5 gallons
	US Gallons	22 gpm	
	ft <sup>3</sup>	2.94 cfm	0.5 cu.ft.
25mm	m <sup>3</sup>	7 cmh	5 liters
	Imp. Gallons	25.7 gpm	5 gallons
	US Gallons	30.8 gpm	
	ft <sup>3</sup>	4.12 cfm	0.5 cu.ft.
30mm	m <sup>3</sup>	12 cmh	50 liters
	Imp. Gallons	44 gpm	5 gallons
	US Gallons	52.8 gpm	
	ft <sup>3</sup>	7.06 cfm	0.5 cu.ft.
40mm	Imp. Gallons	73.3 gpm	5 gallons
	US Gallons	88 gpm	
	ft <sup>3</sup>	11.77 cfm	0.5 cu.ft.





## 200WP & 200WP Remote Endpoints

Listed below are the meter types that are currently compatible with Itron's 1.4 MHz Water Endpoints. Due to continuous research, product improvements and enhancements, Itron reserves the right to change product or system specifications without advance notice.

Meter Manufacturer	Meter Register Types	Open below file for the list of approved meter registers	Notes
AMCO/ABB	Pulser: Digital Encoded: Scancoder and InVISION	 Microsoft Office Excel Worksheet	2
Badger	Pulser: RTR Encoded: ADE		3
Sensus/Invensys/Precision	Pulser: PMM (With 4 hole blue reed switch housing) Encoded: ICE, ECR III, ECR, ECR WP, AMR System, TR-PL		4,5
Hersey	Encoded: Translator		
Metron Farnier	Encoded: OER		
Neptune/Schlumberger	Encoded: ProRead, ProRead Auto Detect		6

### Endpoint Part Number Table

Part Number	Configuration	Intended Application
VWP-0001-101 VWP-0001-101C*	U.S. Single Register	Pit Box
VWP-0001-102 VWP-0001-102C	U.S. Dual Register	Pit Box
VWP-0001-103 VWP-0001-103C	Canada Single Register	Pit Box
VWP-0001-104 VWP-0001-104C	Canada Dual Register	Pit Box
VWP-0001-201 VWP-0001-201C	U.S. Single Register, Remote	Remote Mount, Non-Pit. Requires CFG-0217-303
VWP-0001-202 VWP-0001-202C	U.S. Dual Register, Remote	Remote Mount, Non-Pit. Requires CFG-0217-303
VWP-0001-203 VWP-0001-203C	Canada Single Register, Remote	Remote Mount, Non-Pit. Requires CFG-0217-303
VWP-0001-204 VWP-0001-204C	Canada Dual Register, Remote	Remote Mount, Non-Pit. Requires CFG-0217-303

\* Part numbers with a "C" designator indicate factory custom programming.

**Notes:**

- 1 -Itron not compatible with 1 ½” and 2” imperial gallons, US gallons “high speed” and cubic feet “high speed” C700 meters with Digital registers.
- 2 -Compatible with AMCO Digital registers with tamper reed switch.
- 3 -Badger supplies cable with RTR for remote.
- 4 -For ECR III AMR SYSTEM register on PMM meter refer to ERT part numbers under Invensys/Sensus.
- 5 -Compatible with Precision PMM registers with 4 mounting holes that accept Precision’s blue housing reed switch assembly with 4 mounting screws.
- 6 -Neptune’s ProRead register must be programmed with Neptune ProRead Portable Programmer as follows:

RF/MIU ID SINGLE
DC: E65N or E49N UC: X
ID: X                      00

DC Signifies “Dial Code” and suggest model E65N registers be programmed with this value (i.e. 6 encoded wheels with the resolution of last encoded wheel being 0 or 5). Suggest E49N registers be programmed with this value (i.e. 4 encoded wheels with the resolution of last encoded wheel being 0 through 9).

# Water Endpoint 60 Series

## Overview

### 60 Series Water Endpoint

The 60 Series Water Endpoint is the newest addition to Itron's portfolio of advanced water metering devices and is compatible with encoded (60W) and pulse-generating (60WP) registers from industry-leading water meter manufacturers. Whether you're just starting your automated metering project or already using Itron Water ERT Modules, the 60 Series works with Itron's current meter reading and host-processing software. The 60 Series is compatible with your preferred water meters and the best choice for your automated meter reading needs.

### Ease of Installation

The 60 Series Water Endpoint includes integral mounting adaptations for installing the endpoint below compatible meter pit lids atop either standard-dimension fiberglass or reinforcing rod (re-bar), or attached to plastic PVC pipe by using common plastic cable ties. The 60 Series Water Endpoint can also be screw-fastened to flat surfaces or mounted through metal pit lids via a 1.75-inch hole by snapping on the optional pit lid adapter. Additionally, a shelf-mount adapter is available for use with lids that contain a recessed cavity on the underneath side of the pit lid. The compact shape and optional in-line register cable connector make installations up to 150 feet from the water meter quick and easy. The 60W Series Water Endpoint requires no FCC license. No programming is required for the encoded model (60W). The pulse generating model (60WP) can be programmed with the use of Endpoint-Link® or Endpoint-Link Pro with a FC200SR (Super Raptor) handheld.

### Superior Performance

The 60 Series Water Endpoint utilizes 50 radio channels randomly selecting one channel for each data message. This multi-channel approach delivers improved reading performance over competing products by reducing the effect of interfering signals from other radio products. Additionally, Itron has increased the 60 Series Water Endpoint's radio frequency (RF) output power and employed an advanced antenna to further improve meter reading performance.

### Reliability

The 60 Series Water Endpoint's circuit assembly and battery pack are fully encapsulated within a specially-formulated potting material that completely protects internal components from water, contaminants, corrosion, rough handling and temperature cycling. With its simple design, the 60 Series Water Endpoint uses substantially fewer components than most competing products, resulting in lower overall service costs. The advanced, integrated antenna operates well under a wide range of meter box lids, effectively protecting the 60 Series Water Endpoint from lawn mowers, vehicle traffic and other hazards.

### Lower Cost of Ownership

The 60 Series Water Endpoint's industry-leading battery life ensures your Automated Meter Reading (AMR) investment will achieve substantially better financial returns than competing products with batteries that typically last only 10 or 12 years. Additionally, the 60 Series Water Endpoint's advancements in leak, reverse flow (60W only) and tamper detection translate into fewer field investigations and substantially lower expenditures for installation, meter reading, customer service and field service.



# specifications

## Functional

- > Power Source: Two "A" cell lithium batteries rated for an average life of 15 years on pulse-generating registers, 20 years on encoded registers
- > Maximum Meter Register Pulse Frequency: 3 Hertz
- > Operating Temperatures: -40°F to +158°F (-40° C to +70°C)
- > Storage Temperatures: -40°C to +75°C for maximum of 1,000 hours
- > Humidity Limits: 0 to 100% (submersible)
- > Maximum Register Cable Dimension: 150 feet with Itron-approved cable and splice connectors
- > Meter Compatibility: Encoded and Pulse-Generating register water meters as documented in Itron Water ERT Module Compatibility List, PUB-0063-002

## Transmission Parameters

- > Data Message: Multiple RF channel transmissions of meter register value, cut cable tamper, reverse-flow and system leak status messages broadcast every seven seconds
- > Transmitter Frequencies: 910 – 920 MHz @ +10 dBm (10 milliwatts)

## Approved Reading Devices

- > Drive-by System: Itron Mobile Collection System and Mobile Collector Lite
- > Walk-by System: Itron G5R, FC200R and FC200SR Handheld Computers
- > Minimum versions: MV-RS v7.7 (v7.8.6 for FC200SR), FCS v1.6 (v1.8 for FC200SR), PremierPlus4 v3.2 & Integrator v5.2

## Approved Programming Devices

- > FC200SR with Endpoint-Link or Endpoint-Link Pro version 5.1 or higher software.

## Dimensions

- > Height: 4.5 inches
- > Maximum Diameter: 2.90 inches
- > Weight: Approx. 5.5 oz.
- > Endpoint Cable Length with In-line Connector: 6 inches
- > Endpoint Cable Length without In-line Connector: 5 feet and 6 inches (integral register mounting)
- > Register Cables for Use with In-line Connector: 5 feet and 25 feet

## Mounting Options

- > Rod-mount using standard 1/2" fiberglass or reinforcing rod (re-bar)
- > Pit lid shelf-mount using snap on shelf mounting adapter
- > Wall-mount to suitable backing material with user supplied mounting screws
- > Through meter pit/box lids with optional snap-adapter and security clamp for 1.75" diameter holes up to 2.5" maximum lid thickness

## Regulatory and Standards

- > FCC Part 15.247
- > Industry Canada #210, Section 6.2.2(o)

# profile

## Itron Inc.

Itron is a leading technology provider and critical source of knowledge to the global energy and water industries. Itron operates in two divisions; as Itron in North America and as Actaris outside of North America. Our combined company is the world's leading provider of metering, data collection and software solutions, with nearly 8,000 utilities worldwide relying on our technology to optimize the delivery and use of energy and water. Itron delivers industry leading solutions for electricity, gas and water meters; data collection and communication systems, including automated meter reading (AMR) and advanced metering infrastructure (AMI); meter data management and utility software applications; as well as comprehensive project management, installation, and consulting services.

**To know more, start here: [www.itron.com](http://www.itron.com)**



## Corporate Headquarters

2111 North Molter Road  
Liberty Lake, Washington 99019  
U.S.A.  
Phone: 1.800.635.5461  
Fax: 1.509.891.3355  
[www.itron.com](http://www.itron.com)

# 200WP Water Endpoint functionality profile

## Application

The 200WP Water Endpoint is an advanced meter data collection device designed specifically for the Itron Water Fixed Network. Intended for pit-set and wall-mount applications, its high-power, 1-watt radio frequency (RF) output improves performance to substantially reduce the number of data collectors required, dramatically lowering equipment, implementation and operating costs as compared to lower-powered RF networks.

## Water Meter Compatibility

The 200WP is compatible with industry-leading water meters including AMCO, Badger, Hersey, Metron-Farnier, Neptune and Sensus, enabling water utilities to consolidate all their water meters under a single, advanced-metering RF network. The two-way radio capability of the 200WP facilitates quick configuration changes and future updates without visiting the meter, further reducing operating expenses. Powered by a long-life D-cell lithium battery, the 200WP endpoint delivers a 20-year battery life <sup>2</sup>.

## Data Logging

The 200WP's network-programmable data logging <sup>1</sup> capability can store 35 days of hourly consumption information or eight days of 15 minute interval data. Interval data collected via the Itron Water Fixed Network supports water conservation programs, virtual turn-on's and turn-off's, identifies stuck (zero-consumption) meters, facilitates commercial meter right-sizing, reduces procurement costs from over-sized meters and maximizes water revenue when under-sized (under-reporting) meters are identified and exchanged.

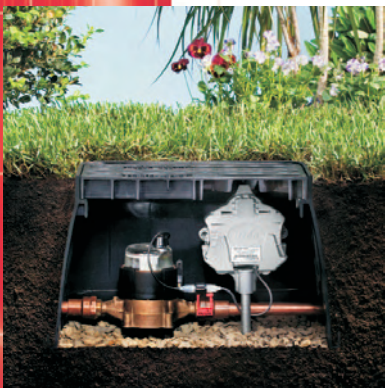
## Leak Management

Distribution system leaks can be identified and localized by comparing metered supply water with metered consumption water totals within a distribution system zone over time-synchronized 24-hour time periods. Once system leaks are identified and corrected, water utilities reduce water loss and see reductions in their supply, energy (pumping and treatment), chemical, maintenance, and field service expenses. Water utilities can further leverage effective leak management by deferring expenditures for additional water and treatment capacity. End-user leaks, downstream of the meter, are identified by a patent-pending algorithm in 200WP and reported via alarm and leak-value messages, increasing customer service and making water conservation programs both practical and manageable.

## REVENUE PROTECTION

To minimize the possibility of water theft, the 200WP will transmit a message flag if the register cable is cut or disconnected. Additionally, security seals, and the ability to monitor reverse-flow conditions and water consumption every hour of every day will minimize water theft and increase water utility revenues. The 200WP also transmits a message flag to alert the utility if there are any communication problems with the water meter register, allowing water utilities to quickly identify and resolve metering problems.

The long battery life, the ability to connect two water meters to a single 200WP, unmatched functional capabilities and Itron's outstanding product reliability and support provide water utilities the most feature-rich, price-competitive water fixed network on the market.



# specifications

## Functional

- > Power Source: 1 D-cell lithium battery
- > Programming Parameters:
  - Transmit Bubble-Up Interval
  - Transmit Bubble-Up Channel
  - Receive Bubble-Up Interval
  - Meter Register Type
  - Data Logging Interval
  - Register Cable Type (2 or 3 wire)
  - Channel Frequency
  - Endpoint Password
  - System Parameters
  - Leak Detection Parameters
  - Security Violation Tamper
  - Register Communication Tamper
  - Initial Consumption Reading
  - Encoder Driver
  - Location ID
  - Part Number
- > Data Security:
  - Cut Cable
  - Communication Error
  - Reprogramming Attempts/Counter
- > Operating Temperatures: -40° F to +158° F (-40° C to +70° C)
- > Operating Humidity: Up to 85% relative humidity (RH)
- > Product Identification: Numeric and bar-coded serial number
- > Installation Options: Pit-set or Wall-mount
- > Dimensions: 5.83" x 6.17" x 2.4" (14.8 cm x 15.67 cm x 6 cm)

## Approved Reading Devices

- > Itron Water Fixed Network Cell Control Unit
- > Water Endpoint Programmer

## Meter Compatibility

- > See Water Endpoint Meter Compatibility Guide (PUB-0063-002)

## Regulatory & Standards

- > FCC Compliant: Part 90 verified
- > Industry Canada Approved: RSS142 certified IC: 864D-1430W

## Operational

- > Transmit & Receive Frequency: 1427 MHz to 1432 MHz
- > Modulation: Frequency Modulated (FM)

## Related Documents

- > Water Endpoint Ordering Guide (PUB-0063-001)
- > 200WP Endpoint Installation Guide (PUB-0217-301)

<sup>1</sup> Data Logging requires two-way network functionality.

<sup>2</sup> Battery life is affected by various operating conditions. The 20-year expectation is based on operating parameters as programmed for a single meter register connection.

## profile

### Itron Inc.

Itron is a leading technology provider and critical source of knowledge to the global energy and water industries. Nearly 3,000 utilities worldwide rely on Itron technology to deliver the knowledge they require to optimize the delivery and use of energy and water. Itron delivers value to its clients by providing industry-leading solutions for electricity metering; meter data collection; energy information management; demand response; load forecasting, analysis and consulting services; distribution system design and optimization; web-based workforce automation; and enterprise and residential energy management.

**To know more, start here: [www.itron.com](http://www.itron.com)**



### Corporate Headquarters

2111 North Molter Road  
Liberty Lake, Washington 99019  
U.S.A.  
Phone: 1.800.635.5461  
Fax: 1.509.891.3355  
[www.itron.com](http://www.itron.com)