

# 50W-2 Pit ERT<sup>®</sup>

## specifications

### 50W-2 Pit ERT<sup>®</sup> Module

*Itron's industry-leading radio-frequency endpoint module for pit-set water meters*

#### Overview

The 50W-2 ERT<sup>®</sup> module for pit-set water meters is the data collection endpoint device for Itron's radio-based handheld, mobile and network automatic meter reading systems (AMR).

The 50W-2 module supports protocols from all major water meter manufacturers, providing water utilities and municipalities with an open-architecture solution that extends the operational and strategic benefits of AMR technology to the pit-set water meter. Its innovative dual-mode operational capability offers unrivaled flexibility, battery life, and ease of use.

The 50W-2 encodes accurate consumption and tamper information from the water meter. For maximum flexibility, the 50W-2 can be programmed to communicate with Itron meter reading technologies in either "wake-up" or "bubble-up" mode. When used in wake-up mode, it waits for a wake-up signal over a radio frequency and then automatically transmits metering data to a radio-equipped handheld computer, Mobile Collector System AMR unit, or Itron Fixed Network and MicroNetwork data collection solutions.

In bubble-up mode, the 50W-2 transmits a continuous stream of information and can be read by Itron's Mobile Collector, G5R handheld, or fixed-based MicroNetwork.

The 50W-2 endpoint pit module features an in-line connector for quick and easy installation. The endpoint can be connected to the register without the need for any tools. It features a side exit cable to minimize cable damage when mounted to a pit lid, when the lid is removed. It also features a rugged, low-profile dome transmitter designed to provide reliable meter reading performance. The module features a tough, die-cast aluminum shell and nylon housing with specially coated electronics designed to protect the unit and deliver superior performance from the harsh pit environment.

The 50W-2 is powered by two long-life, "A" cell lithium batteries. Estimated battery life when used in wake-up mode exceeds the 20-year life expectancy of the ERT module, so battery change-out programs are not necessary. Estimated battery life for the 50W-2 when used in bubble-up mode is a minimum of 10 years. Itron offers a factory battery replacement service for customers desiring battery change out.





## 50W-2 Pit ERT Module Specifications

To maximize installation efficiency, Itron offers all applications and related hardware to support automation of the installation process for both utilities and meter manufacturers. Itron also provides easy-to-use file interfaces to support the upload and download of information to utility billing systems.

### Functional

- > Power source: 2 "A" cell lithium batteries
- > Radio programming parameters:
  - 50W-2 programmed to Wake-Up Mode: utility ID, wake-up tone, lock level and register variables
  - 50W-2 programmed to Bubble-Up Mode: same as above with addition of bubble-up rate (factory default 3 seconds), and encoder latency (factory default 1 hour for encoded registers)
  - Refer to ReadOne Pro ERT Programming Guide TDC-0027 for further details. Available in English at [www.itron.com](http://www.itron.com).
- > Tamper detection: Cut Cable/No Read Indicator is available for all models
- > Operating temperatures: -40°C to + 70°C
- > Operating humidity: 0 to 100% (submersible)
- > Product identification: numeric and bar-coded endpoint module serial number

### Approved reading devices

For 50W-2 mounted through pit lid or under thin walled plastic pit lid:

Mode	MC	G5R	FS3PN	FS2PN	MicroNetwork	Fixed Network
Wake-Up	X	X	X	X	X	X
Bubble-Up*	X	X			X	

For 50W-2 mounted under metal\*\*, composite or dense plastic pit lids:

Mode	MC	G5R	FS3PN	FS2PN	MicroNetwork	Fixed Network
Wake-Up	X	X				
Bubble-Up*	X	X				

\* If using the 50W-2 in bubble-up mode and an FCC license has not been obtained, the reading device must not transmit a wake-up signal. Customers using the MC or G5R in bubble-up mode without an FCC license must be using MVRS software, version 5.01 or higher. Refer to installation manual for reading device for instructions on disabling the transmitter.

\*\* Driving speed and reading distance is minimized when endpoints are placed under metal pit lids. For MC at speeds up to 3 MPH, endpoints can be read up to 90 meters in an unrestricted RF environment. For the G5R, at walking speeds, endpoints can be read up to 30 meters.

### Regulatory & standards

- > FCC compliance: Part 15 certified

### Operational

- > Receive frequency (for product used in wake-up mode): 952-956 MHz
- > Transmit frequency: unlicensed spread spectrum 910-920 MHz
- > FCC license is required for the reading device if a signal will be transmitted to wake-up the endpoint module.

### Meter compatibility

- > Refer to Water ERT Meter Compatibility List, available at [www.itron.com](http://www.itron.com)

### Related documents available at [www.itron.com](http://www.itron.com)

- > Installing Pit ERT Model 50W-2 (PUB-0026-002)
- > Water ERT Ordering Guide (PUB-0063-001)
- > Water ERT Meter Compatibility (PUB-0063-002)

## profile

### Itron

Itron is a leading technology provider and critical source of knowledge to the global energy and water industries. More than 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/global](http://www.itron.com/global)**



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