Itron

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The 50W-1 ERT module for pit-set water meters is the data collection endpoint device for Itron's radio-based handheld, mobile AMR and network AMR systems. By supporting protocols from all major water meter manufacturers, Itron's 50W-1 module provides 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. And with its innovative dual-mode operational capability, the 50W-1 provides unrivaled flexibility, battery life, and ease of use.

50W-1 ERT >

The 50W-1 encodes accurate consumption and tamper information from the water meter. To provide maximum flexibility to users, the 50W-1 can be programmed to communicate with Itron meter reading technologies in either "wake-up" mode 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, DataCommand Unit or DataPac mobile AMR unit, as well as Itron Fixed Network and MicroNetwork data collection solutions. In bubble-up mode, the 50W-1 transmits a continuous stream of information and can be read by Itron's mobile DataCommand Unit or DataPac, G5R handheld, or fixed-based MicroNetwork. When used in bubble-up mode, the 50W-1 module does not require an FCC license to operate.

The 50W-1 ERT pit module is attached directly to the meter and contained within the pit. It 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-1 is powered by two long-life, replaceable "A" cell lithium batteries. Estimated battery life for the 50W-1 when used in bubble-up mode is 10 years. Estimated battery life when used in wake-up mode exceeds the 20-year life expectancy of the ERT module, meaning battery changeout programs will not be necessary. 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.

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50W-1 installed on pit meter

Functional Specifications

> Power source: 2 "A" cell lithium batteries

> Radio programming parameters:

- 50W-1 programmed to Wake-Up Mode: utility ID, wake-up tone, lock level and register variables

- 50W-1 programmed to Bubble-Up Mode: same as above with addition of bubble-up rate
  (factory default 3 seconds), encoder latency (factory default 1 hour for encoded registers) and
  debounce (factory default for Badger RTR registers is used)

- Refer to ReadOne Pro ERT Programming Guide TDC-0027 for further details

> Tamper detection: Cut Cable/No Read Indicator is available for all models

> Operating temperatures: -40˚F to +158˚F (-40˚C to + 70˚C)

> Operating humidity: 0 to 100% (submersible)

> Product identification: numeric and bar-coded ERT module serial number

Approved Reading Devices

Mode	DCU	DataPac	G5R	FS3PN	FS2PN	DataCap	MicroNetwork	Fixed Network
Wake-Up	x	x	x	x	x	x	x	x
Bubble-Up*	x	x	x				x	

*If using the 50W-1 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 DCU, DataPac 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.

Regulatory & Standards

> FCC compliance: Part 15 certified

> Industry Canada approval: RSS/CNR210

Operational Specifications

> Receive frequency (for product used in wake-up mode): 952-956 MHz

> Transmit frequency: spread spectrum 910-920 MHz

> FCC license is required if a wake-up signal will be sent from reading device (for product used in
  wake-up mode)

> No FCC license is required if product is used in bubble-up mode

Meter Compatibility

> Refer to Water ERT Meter Compatibility List