



Mobile Collector Generation 4

Mobile Collection Systems

The Itron MC4 series is the latest generation in drive-by data collection and mobile command and control from Itron. The MC4 series includes multiple models designed to meet your specific needs.

HIGH-PERFORMANCE COMMUNICATIONS FOR THE MOST DEMANDING APPLICATIONS

Mobile Collector 4 Max, Mobile Collector 4 Pro and Mobile Collector 4 Core

Performance and portability are combined with Itron's patented GPS mapping for meter reading, two-way wireless radio communications and compatibility with Itron's latest generation mobile collection apps. The MC4 series provides improvements in a utility's operational efficiencies, regardless of the type or size of their service – streamlining business processes and reducing costs associated with meter reading operations and service delivery, enhancing customer service and improving employee safety.

The MC4 series of mobile collectors will ensure you continue to benefit from your investment in Itron Advanced AMR meters and ERTs through their 20-year life.

Itron ERTs set the standard for automated meter reading (AMR) when they were introduced in the 1980s. Itron continues to invest in the ERT product family and provides ever increasing benefits from these modules used for both AMR and AMI. Over the years, evolutions have occurred including Itron's introduction of datalogging, enhanced security, remote disconnect, and other Advanced AMR capabilities that were all enabled through Itron's highly efficient ERT communication protocols.

The MC4 series of mobile collectors provide the following:

- » All the safety, accuracy, and efficiency benefits that come with Itron AMR
- » “Drop-in” compatibility with Temetra Mobile and Itron Mobile for FCS
- » Basic AMR data collection for Billing and Tamper/Event monitoring
- » Advanced AMR capability for Datalogging, Remote Disconnect, and more
- » Itron’s latest radio designs with improved read sensitivity and range
- » Ever increasing app features including Itron’s patented Endpoint Tracking for finding lost and stolen meters

INTRODUCTION

Powered by Itron SRead™ radio technology, the MC4 Series can handle everything from basic consumption reads to the collection of interval data and performing other two-way communications with Itron’s advanced meters and ERTs for gas, water, and electricity. The MC4 Series eliminates the need for a dedicated vehicle by being small enough to easily transfer among drivers as necessary.

FUNCTIONALITY PROFILE

Depending on the selected model, MC4 has the capacity to store and process up to 30,000 or 100,000 meter reads per shift. The MC4 Series can also collect out-of-route readings used to fulfill off-cycle reading requests without dispatching a technician. The potential savings are substantial when compared to the few hundred meters read per day by a typical walk-by employee. Itron SRead radio technology offers increased read sensitivity, simultaneously listens to over 80 channels and can conduct up to 50 two-way communications simultaneously all to improve range and reduce route processing times.

GPS MAPPING

A built-in GPS receiver and on-board mapping software allow a user to see where the vehicle is in relation to the ERT modules and meters. Using the Windows apps from Itron, various icons indicate the completion status of each endpoint in addition to those accounts that take priority or require other special operations such as remote disconnect. A Microsoft Bing satellite view is available when the computer is connected to the Internet.

MC4CORE FEATURES

The MC4Core is Itron’s entry-level mobile collector. While affordable, the MC4Core contains a complete and powerful set of features that work with Itron ERTs, meters and sensors. These features are available in all MC4 models:

- » Collect gas, water and electricity current index reads for billing
- » Read “bubble-up” endpoints
- » Extract 40 days of daily or hourly interval data from advanced gas, water and electricity meters and ERTs
- » Perform real-time demand reset and extract TOU data from CENTRON Bridge and CENTRON R450 Advanced meters
- » Remote disconnect for gas, water and electricity services
- » Collect leak data from water ERTs equipped with acoustic leak sensors
- » Fulfill special read requests such as move-ins and move-outs
- » Daily data for customer service and billing disputes
- » Monthly gas balancing reads
- » Data to facilitate load studies and conservation programs
- » Data to support mid-cycle rate changes

- » Extract 40 days of daily, hourly or 15-minute interval data from CENTRON® Bridge and CENTRON R450 Advanced meters
- » Ability to process multiple routes simultaneously
- » Up to 30,000 in-route reads per shift
- » Up to 30,000 out-of-route reads per shift
- » GPS mapping for reduced drivetimes
- » Exceptional meter reading performance in a small size
- » Wired or wireless data transfer using any Internet connection

MC4PRO FEATURES

The MC4Pro includes all the features of the MC4Core plus these additional features:

- » Side looking radios to improve basic AMR read performance for reduced drivetimes and improved out-of-route read collection
- » Up to 100,000 in-route reads per shift
- » Up to 100,000 out-of-route reads per shift
- » GPS Endpoint Tracking for finding lost and stolen meters

MC4MAX FEATURES

The MC4Max includes all the features of the MC4Core and MC4Pro plus this additional feature:

- » Ability to read Itron’s legacy wake-up ERT modules including 40G/40GB/40E/45E/40W/50W

Customers who only deployed bubble-up ERT modules will get everything they need from the value priced MC4Core and MC4Pro. The MC4Max is only required by customers who continue to need the ability to read wake-up ERT modules.

MOBILE COLLECTOR 4 FEATURE COMPARISON MATRIX

| | MC4MAX | MC4PRO | MC4CORE |
|--|--------|--------|---------|
| Basic AMR for billing | ✓ | ✓ | ✓ |
| Advanced AMR (Datalogging, etc.) | ✓ | ✓ | ✓ |
| Mapping | ✓ | ✓ | ✓ |
| Out-of-Route Reads | ✓ | ✓ | ✓ |
| Side Looker Radios | ✓ | ✓ | ✗ |
| Endpoint Tracking | ✓ | ✓ | ✗ |
| Wakeup Transmitter for 40G/40GB/40E/45E/40W/50W ** | ✓ | ✗ | ✗ |

**Wakeup ERTs requiring a wakeup transmitter: All models of the 40G, 40W, 40E. These ERTs can be programmed in wakeup or bubble-up mode: All models of the 40GB, 50W, 45E

SPECIFICATIONS

Transmitter/Receiver Characteristics

- » Legacy wake-up transmitter: 952-956 MHz Licensed Frequency
- » Receiver: 908–924 MHz (ISM Band)
- » Two-way command transmitter: 908–924 MHz (ISM Band)
- » Transmitter power: 6.5 Watts peak
- » Output impedance: 50 ohms
- » Data integrity: verified in every message

Antenna Specifications

- » 5 dBi omni-directional whip mounted on base with built-in 3 dBi GPS antenna.
- » Optional Side Looker (left+right), 9.1 dBi Linear Directional antenna

Regulatory Information

- » Legacy wake-up transmitter, MAS band:
 - » FCC Part 101 compliance
 - » ISED RSS-119 compliance
- Two-way transmitter/receiver, ISM band:
- » FCC Part 15.247 compliance
 - » ISED RSS-247 compliance

Environmental

- » Operating temperature: -4°F to +122°F (-20°C to +50°C)
- » Storage temperature: -40°F to +160°F (-40°C to +71°C)
- » Humidity limits: 5 to 95% noncondensing relative humidity

Physical Dimensions

- » MC4 Series Radio: 13"W x 11.25"L x 2.75"H
- » Sled: 13"W x 19"L x 9.5"H
- » CF-33 Laptop: 11.9"W x 11.5"L x 2.9"H

Weight

- » MC4Max Radio: 10 lbs./ 4.5 kg
 - » Sled: 13.2 lbs. / 6 kg
 - » CF-33 Laptop: 8.2 lbs./ 3.7 kg
- MC4 Series comes complete with MC4 Series radio, mounting and wiring hardware, and optionally with Panasonic Toughbook or Toughpad computer.

Panasonic Computer (Optional)

- » Choice of fully rugged Windows 10 Toughbook or Toughpad computer from Panasonic. For details, see the respective Panasonic datasheet.

Power

- » Power supply: 12Volts DC vehicle power supply
- » Power consumption: 5 Amps maximum

Wiring Options

- » Permanent – Permanent wiring includes a through-the-roof antenna base and a fuse block power cable
- » Portable – Portable wiring includes a magnetic-mount antenna base and a vehicle accessory power cable

Mounting Options

- » Sled Mount – The Panasonic Toughpad vehicle dock comes attached to a sled that can be easily and safely installed on any seat in the vehicle.
- » Pedestal Mount – The Panasonic Toughpad comes with a vehicle dock that can be attached to a pedestal that is installed in the vehicle (note: the pedestal is not included).

Endpoint Compatibility*

All MC4 Models:

- » 100G gas ERT modules
- » Gen™5 500G Intelis Gas Meter
- » Gen™5 500G ERT® Module
- » Gen™5 500W ERT® Module
- » OpenWay Riva Intelis Gas Meter

- » OpenWay Riva 500G ERT® Module
- » OpenWay Riva 500W ERT® Module
- » 60W water ERT modules
- » 100W water ERT modules
- » Itron CENTRON Bridge electricity meters
- » Itron CENTRON R450 Advanced electricity meters
- » Itron CENTRON electricity meters equipped with R300 or R400 modules
- » Itron SENTINEL® electricity meters equipped with R300 modules

Additional Support with MC4Max

- » All legacy Itron ERT® modules
- » 40G / 40GB gas ERT modules
- » 40W / 50W water ERT Modules
- » 40E electric ERT modules

* Supported endpoints will vary across applications. Please consult the capabilities of the software app and version.



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