



The Sentry 900 is an excellent low cost field tool designed to read gas and electric ERTs manufactured by Itron and AirPoints produced by Hunt/Landis+Gyr.

## Sentry 900

ERT and AirPoint  
Module Reader

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Fast

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Accurate

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Reduced O&M Costs

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Easy To Use

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Lightweight

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Durable

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Adaptable

Austin International's Sentry 900 is a hand-held device designed to interrogate Itron ERT radio modules and Landis+Gyr AirPoint modules. The Sentry 900 is designed to work with ERT 40, 41, 50, 51, R200 and R300 series modules.

The Sentry 900 can be used to read the ERT serial number, meter reading, ERT type, physical tamper and reverse direction tamper. The Sentry 900 can also be used to measure the relative signal strength of the ERT transmission.

The Sentry 900 includes the ability to wake up ERT modules that require a wake-up tone such as gas, water and older electric modules. The Sentry 900 is field programmable to transmit each individual wake-up tone as determined by the utility.

### Operating Instructions

#### POWERING ON THE SENTRY 900

To power on the Sentry 900, press and release the power button located on the top left of the control

panel. The display will illuminate and display the firmware version and battery strength of the hand-held.

The Sentry 900 will automatically power down after approximately 2 minutes with no button activity in order to conserve battery life.

#### READING ERT MODULES IN SCM BUBBLE UP MODE

To begin reading ERT modules that transmit without the use of a wake-up tone, press the RECEIVE ON/OFF key. The LCD will display a solid antenna icon to indicate the unit is in "Receive Mode".

Please be aware that the interval between ERT transmissions depends on ERT type and program settings. For high powered ERT modules, transmissions only occur every 30 seconds, therefore you may need to wait longer than when reading low powered ERT modules.



The Sentry 900 is capable of reading both low and high powered ERT modules from approximately 1 foot away from the meter.

#### VIEWING CAPTURED READINGS

Once ERT readings have been captured by the Sentry 900, the readings can be viewed by scrolling through the stored values using the UP and DOWN buttons. The Sentry 900 can receive and store up to 10 messages simultaneously. Once the 10 slots are filled, the Sentry 900 will overwrite the slots when new ERT devices are detected. Values displayed include the record number (0-9), ERT Type, Electric tamper count, physical tamper count, module serial number and meter reading.

#### CLEARING STORED READINGS

Stored ERT readings can be cleared from the Sentry 900's memory by simultaneously pushing the UP and DOWN buttons.

#### READING MODULES IN HIGH SENSITIVITY MODE

Sometimes it may be desirable to read modules from farther away than the normal 1-2 foot range. The Sentry 900 is equipped with a high sensitivity mode that will allow modules to be read at a greater distance than possible in normal mode. Modules can be read up to 25 feet away depending on the environment when the Sentry 900 is in high sensitivity mode.

**Note:** When using high sensitivity mode, care must be taken to ensure that you are able to read the intended modules. The Sentry 900 is capable of reading only 10 meters simultaneously, so in areas of dense module concentration it may be difficult to capture the correct reading. High module density will require the use of normal sensitivity to isolate the correct module.

To place the Sentry 900 into high sensitivity mode, depress the UP button once you are already in the receive mode. You will see the normal antenna icon on the screen as well as an 'H' icon beside the antenna to indicate you are in high sensitivity mode. To return to normal sensitivity mode, press the DOWN button. The 'H' icon will disappear and the '0' icon will reappear to indicate you are in normal sensitivity mode.

#### READING MODULES REQUIRING A WAKE-UP TONE

Some modules require a wake-up tone in order to begin to transmit. These include gas modules, water modules and older electric module such as the ERT 40 and ERT 45 series. In order to transmit a wake-up tone, place the unit in the receive mode by pressing the **RECEIVE ON/OFF** button. Once the antenna icon appears press AND RELEASE the

**POWER** button. A number will momentarily appear beside the antenna icon (not the '0' that indicates normal sensitivity mode) to indicate the particular wake-up tone that the Sentry 900 is using. The antenna icon will flash for 2-3 seconds to indicate that a wake-up tone is being transmitted. The wake-up tone can be re-transmitted by pressing the **POWER** button again. The wake-up tone can be changed from the Sentry 900's setup menu as described later in the manual.

#### MEASURING MODULE SIGNAL STRENGTH

The Sentry 900 is also capable of measuring the relative signal strength of the module while it is transmitting. In order to measure signal strength, place the unit in the receive mode then press and hold the **DOWN** button. When the module transmits the Sentry 900 display will show a transmit symbol then a number representing signal strength below the module serial number (where the module reading is normally displayed).

Once the **DOWN** button is released, the Sentry 900 returns to normal sensitivity mode and displays the module reading once again.

#### Sentry 900 Set-Up

##### ENTERING SET-UP MODE

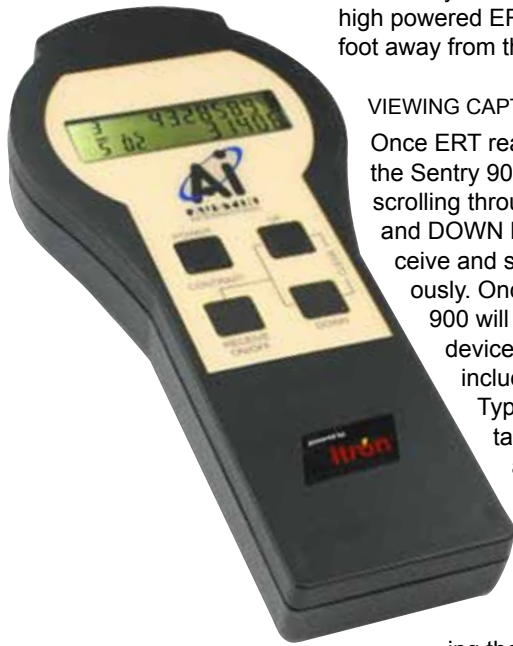
In order to enter the Sentry 900's setup mode press and hold the **DOWN** button then press the **POWER** button simultaneously. Instead of displaying the normal start-up display, the Sentry 900 will display the Tone icon and a number between 0-9.

##### SELECTING THE WAKE-UP TONE

With the unit Sentry 900 in set-up mode and the 'Tone' icon displayed press the **RECEIVE** button in order to cycle through the available wake-up tones. Once you reach the correct tone press the **POWER** button to exit set-up mode.

##### SELECTING THE NUMBER OF DECIMALS TO DISPLAY

Some ERT and AirPoint modules transmit decimals as part of their reading. The Sentry 900 allows you to either display the 2 decimals or to truncate the decimals and only display whole numbers. With the Sentry 900 in set-up mode, press the **UP** or **DOWN** to cycle through the various modules types: 02, 04, 05 or 08. Each type will have the option of selecting '0' or '2' which determines how many decimals to display. Once you have selected the number of decimals to display for each module type, press the **POWER** button to exit set-up mode.



#### Specifications

##### Operating Temperature:

-20° to 70° Celsius

##### Storage Temperature:

-40° to 85° Celsius

##### Operating Humidity Range:

5- 95% non-condensing

##### Module Reading Queue:

10 readings simultaneously

##### Receiver Sensitivity:

Normal Sensitivity Mode,  
High Sensitivity Mode

##### Weight:

9.5 ounces

##### Dimensions:

8.9" x 3.6" x 1.5"  
(without cover)

##### Cover Colors:

Red, Blue, Yellow, Green,  
Grey

##### Power Supply:

Three AA Batteries  
(included)

