



Sentry 950 User's Manual



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Introduction

The Sentry 950 handheld reader is designed to read ERT® radio modules and display information using a graphical interface through the touch LCD screen. The unit also has a feature to check the signal strength. Device has an internal memory to take and save records for a later upload to a windows PC. Radio receiver features high sensitivity option, as well as a wakeup tone transmitter.

1. Operating Instructions

1.1 Powering Up

To power up the Sentry 950; press and hold key '1' on the keypad for four seconds. The LCD display will illuminate and display the battery life shown at the top left corner of the screen.

1.2 Powering Down

Device is powered down automatically if idled for two minutes. To power down the handheld manually, press and hold '1' on the keypad from main screen for at least four seconds or an audible beep.

1.3 Main Screen

The main screen is shown below in Figure 1. It leads to the 4 sub-screens: (**Reading**, **Signal Strength**, **Options**, and **Browse Memory**). The upper left corner displays the battery status. If the device is plugged in, it will show either "charging" or "charged." If the unit is not powered, the battery percent charge will be displayed.

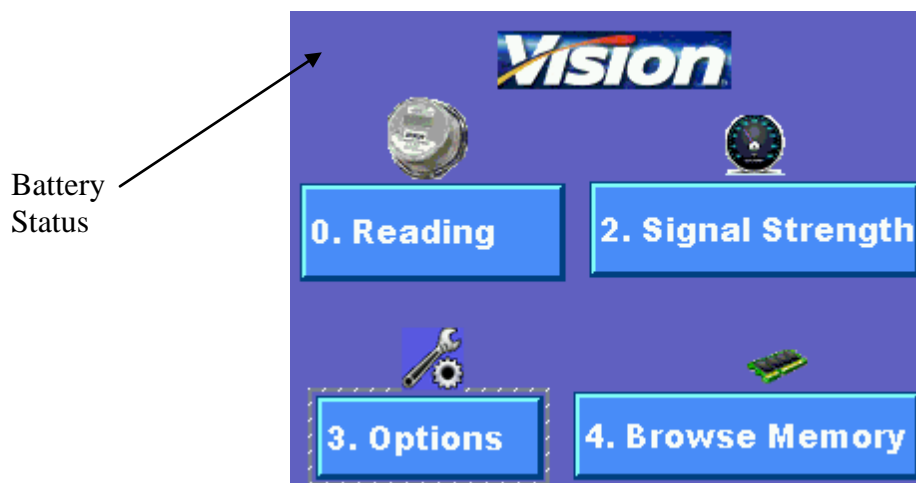


Figure 1

1.4 Reading

Pressing '0' on the keypad or pushing the **Reading** button on the LCD will access the ERT messages Reading Screen.

- To obtain a reading, the radio must be turned on, by pressing '3' on the keypad or pushing the **Radio ON/OFF** button on the display. A wakeup tone will be transmitted if the “wakeup tone” option was selected. Once the radio receiver is on, a “wakeup” signal symbol as well as a red antenna icon will appear on the display.
- The device must be placed no further than 5 inches from the meter if in standard sensitivity mode.
- If **Autosave** option was selected, an icon (diskette) will appear next to the **Save Record** button once message is received. It is also possible to save manually by pressing '2' on the keypad or pushing Save Record button on the display if **Autosave** option is not chosen.
- A yellow icon 'H' will appear if the **High Sensitivity** mode is turned on.
- Custom messages can be written by pressing the center window and using the keypad to type. Note that once started writing a message, the keypad can only be used to type. Any other action must be performed using the touch screen.
- Supported ERT protocols include **SCM**, **SCM⁺**, **IDM**, and **DoD**.

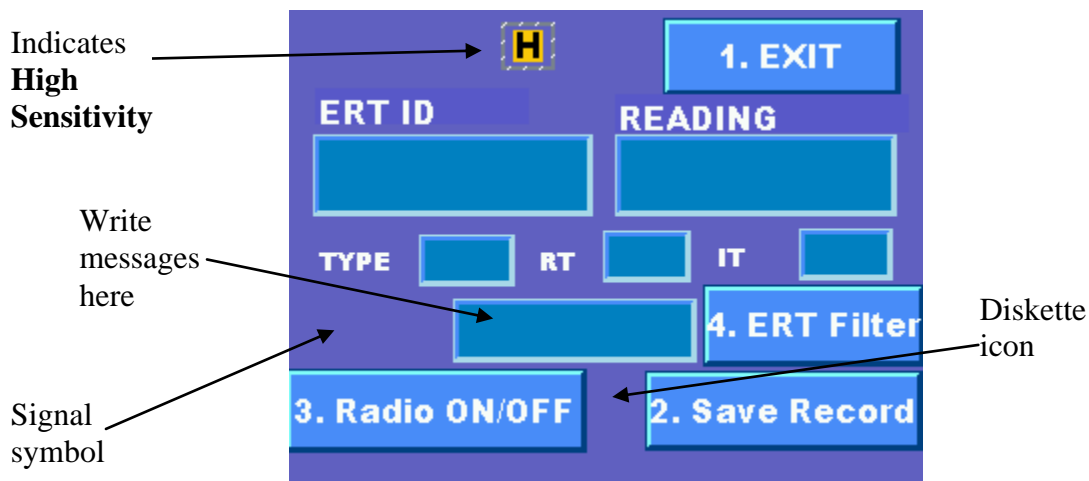


Figure 2

Pressing '4' or pushing the **ERT Filter** button on the display will access the ERT ID Filter screen. Once a filter ID is entered using the keypad, messages from other modules will be ignored, and only the device with the specified ERT ID will be read. Selecting items can only be accomplished by pressing the touch screen, not through the keypad. Checking one or more **Exclude** options will filter out the selected protocols.

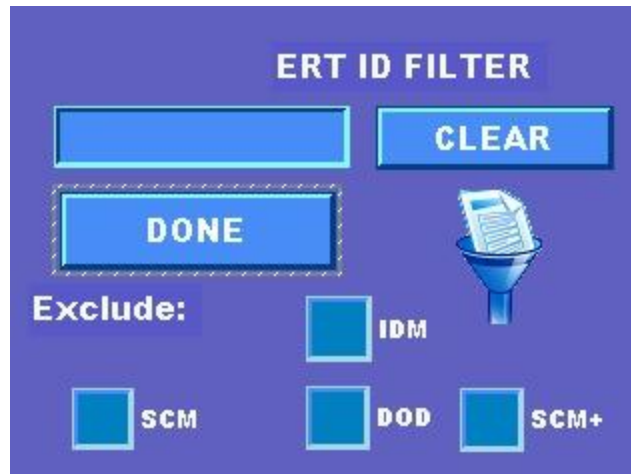
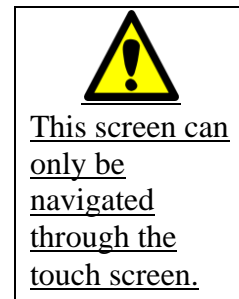


Figure 3



1.5 Signal Strength

From the main screen, pressing '2' on the keypad or pushing the **Signal Strength** button on the display will lead to the Signal Strength screen.

- The needle of the gauge shows the RF strength of the signal coming from the module.
- The scale of the power meter is divided into 3 sections, red being poor, yellow is moderate and green representing a strong signal.

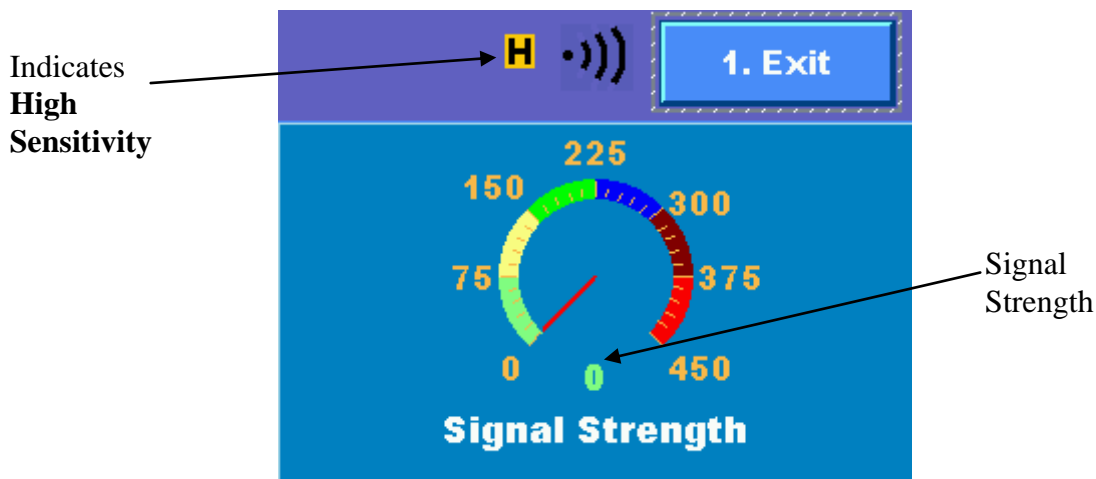


Figure 4

1.6 Options

From the main screen, pressing '3' on the keypad or pushing the **Options** button on the display will lead to the Options screen.

- The **brightness** of the backlight can be adjusted. Pressing '4' on the keypad or pushing the '-' button will lower the brightness. Pressing '6' or '+' will raise it.
- High sensitivity can be selected by pressing '8' on the keypad or checking the **High Sens** checkbox. This option will increase the effective distance range of the hand held device.
- Pressing '3' on the keypad or pushing the **Beep Settings** button on the display will redirect to the beep settings screen. Beeps can be set to sound for every action, upon packet reception, or never.

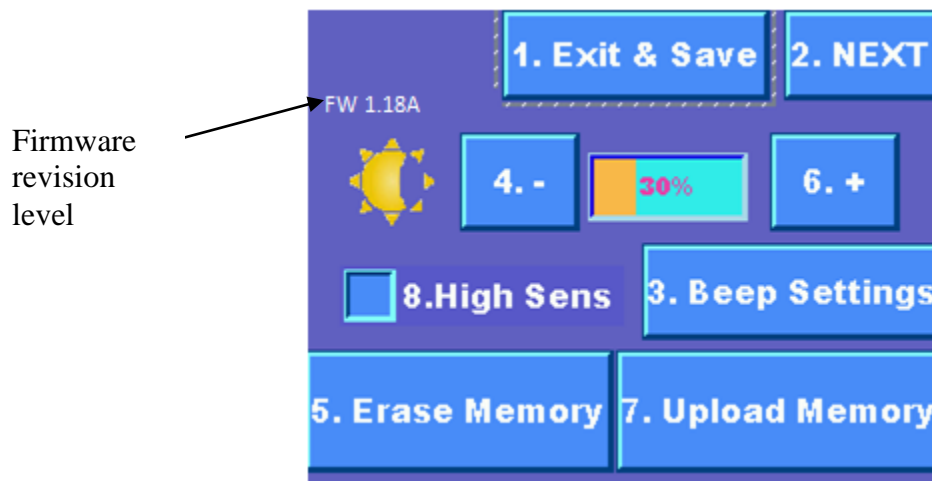
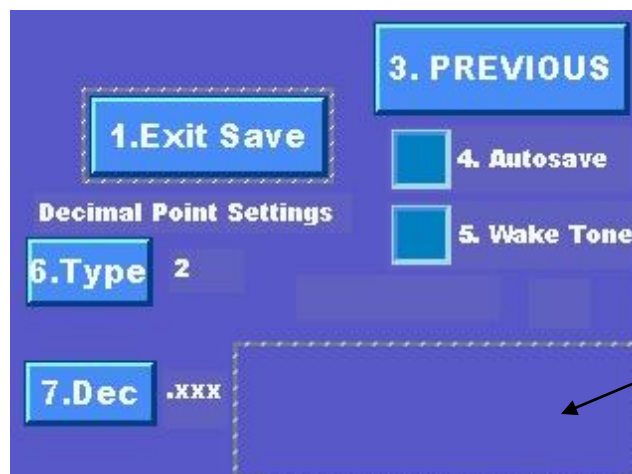


Figure 5

Pressing '2' on the keypad or pushing the **NEXT** button on the display will advance to additional options.

- **Autosave**-automatically stores meter readings in internal flash memory.
- **Wake Tone**-selection will cause the device to transmit RF modulated tone once radio receiver is enabled. Transmission of the signal lasts for 10 seconds.
- **Decimal Point Settings**-sets number decimal points for each ERT reading type.



Touch screen slider bar appears to select **Wake Tone**

Figure 6

1.7 Browse Memory

From the main screen, pressing '4' on the keypad or pushing the **Browse Memory** button on the display, will lead to the memory storage screen. Here, the user can navigate through saved RF messages.

- Pressing '3' or '9' on the keypad or pushing **Up** or **Down** respectively, scrolls through the memory contents of the device.

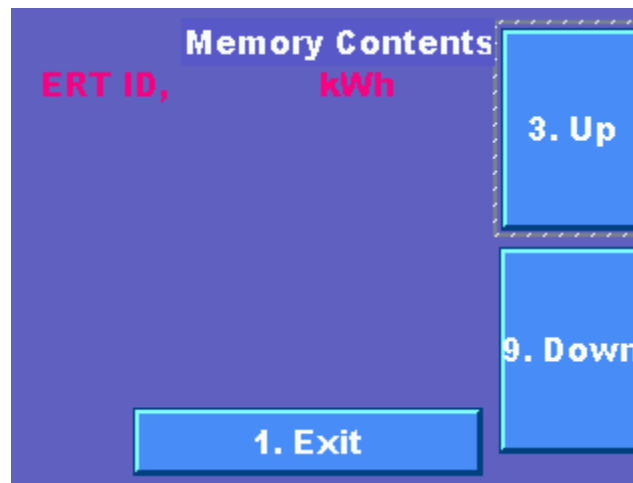


Figure 7

1.8 Erase Memory

By pressing '5' on the keypad from the options menu or pushing the **Erase Memory** button on the display, the user is directed to a red confirmation screen, verifying that the user actually intends to erase the memory contents. This screen is pictured below in Figure 8. It is a good practice to back up data before emptying memory.

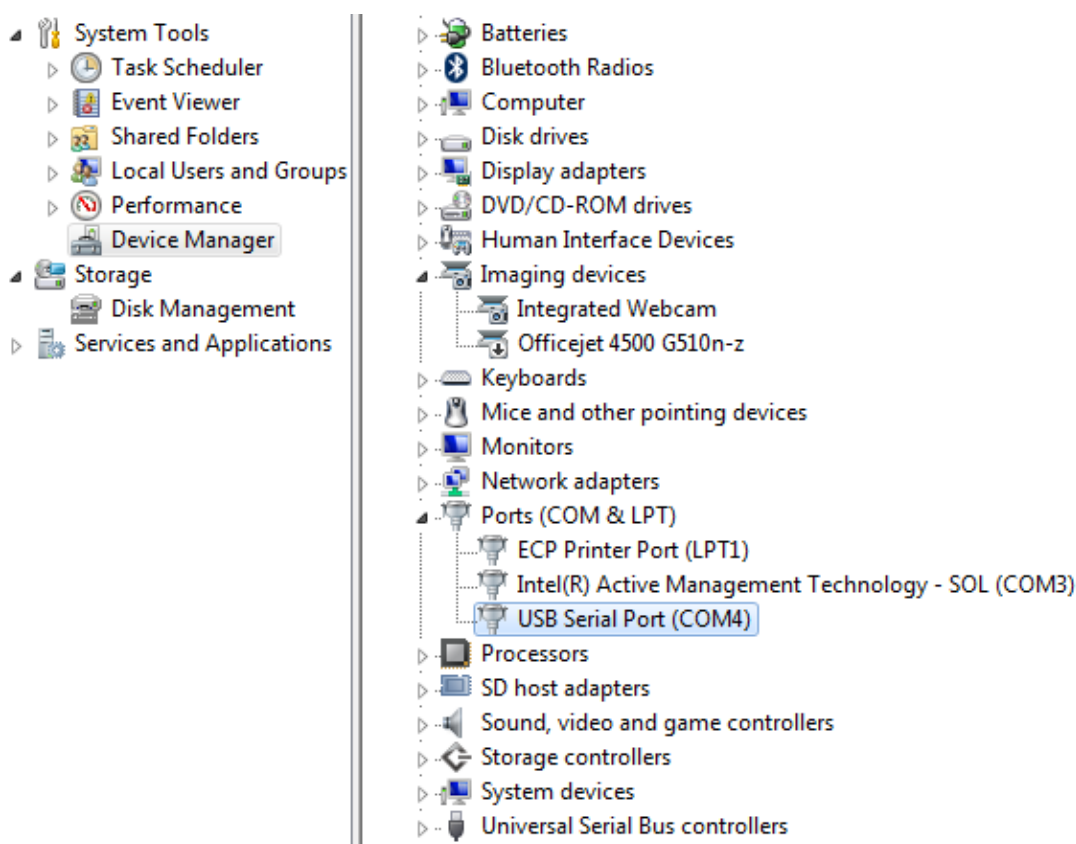
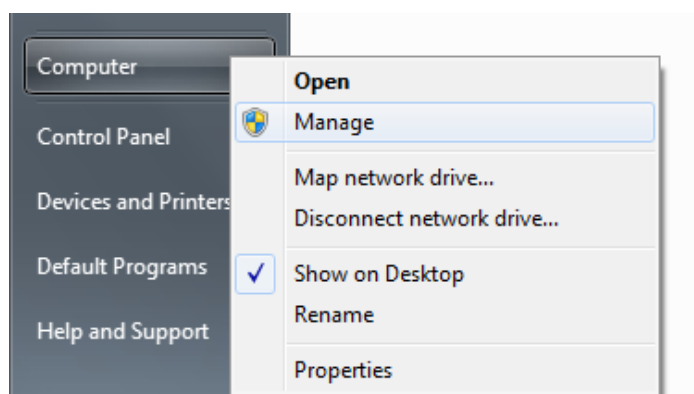


Figure 8

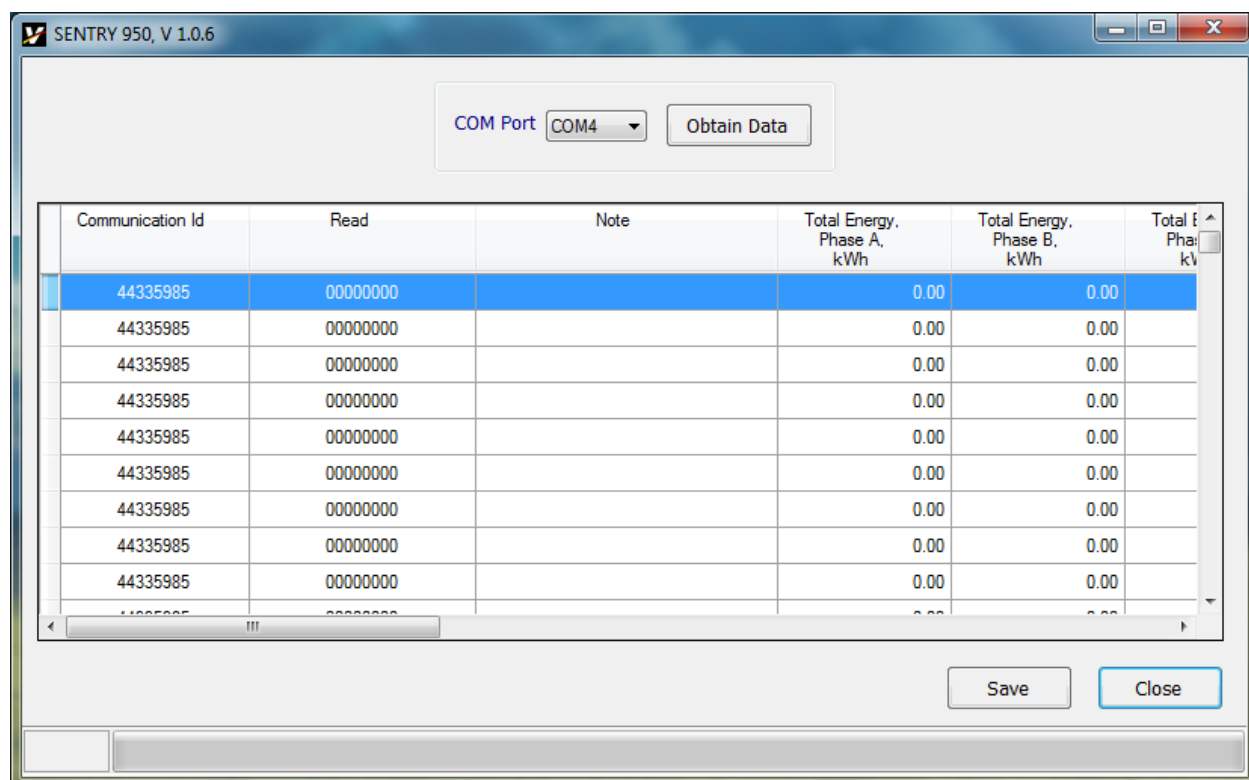
1.9 Upload Memory

From the **Options** menu, pressing '7' or the **Upload Memory** button accesses the Upload Memory screen. In this mode, the unit waits for PC to establish connection and download saved data. Sentry 950 software is used in conjunction with device for this operation.

- Connect unit to PC via USB cable.
- Open Sentry 950 Collection Software.
- Select the COM Port that the device is plugged into. The port is located by right-clicking on Computer from the Start Menu, selecting Manage>Device Manager>Ports (COM & LPT), then checking the USB Serial Port COM number.



- Select this COM Port number from the drop down menu of the Sentry 950 software and click 'Obtain Data.'



- The unit will upload data automatically

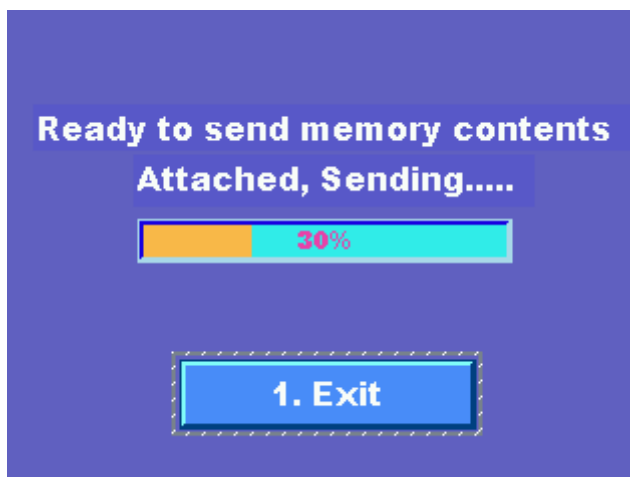


Figure 9

- Once finished, a window will appear, indicating that the download is complete. Click 'Save' to export data to an Excel file.

Revision History

Date	Revision	Author	Comments
6/19/2015	NC	Dmytro Zaytsev	
12/24/2015	A	Jacob Kon, Vlad Lozovskiy	Audible Beep when shutting down, Protocol filtering, Firmware revision level indicator.