Encompass 1i Handheld Reader
Display Only Version
User Manual

January 28, 2010

Softrail

1098 Venetia Road
Eighty-Four, PA 15330

Tel. 888 872-4612 (toll free US and Canada only)
Tel. 724 942-1473
Fax. 724 942-1480
E-mail aei@signalcc.com
Web Page www.aeitag.com

Table of Contents

List of Figures

1. BRIEF OVERVIEW

The Encompass 1i Handheld AEI Reader is a very versatile AEI tag reader. It is primarily used to verify AEI tag data or to capture track consist by reading the AEI tags on rail vehicles.

Its two main components are an Intermec CN3 mobile computer and IP30 RFID reader (see Figure 1). Each has its own replaceable battery.

Figure 1- Encompass 1i Components

The Intermec CN3 mobile computer snaps on top of the IP30 RFID reader to form a single unit (see Figure 2). The Intermec CN3 computer communicates with the IP30 RFID reader via a wireless Bluetooth link. There are no cable connections between these two devices.

Figure 2 - Encompass 1i Handheld Reader

2. QUICK START

2.1. Battery Operation

The Encompass 1i handheld reader has two batteries. The battery for the IP30 RFID reader is located in its pistol grip (see Figure 3) and can be easily replaced.

Figure 3 - IP30 RFID Reader Battery

The RFID reader's battery is charged in the IP30 battery charger shown in Figure 4. The IP30 battery charger can simultaneously charge either 2, 4 or 8 batteries depending on the model ordered. The Encompass1i normally comes with a two bay battery charger.

Figure 4 - Reader Battery Charger

To charge the RFID reader's battery, insert the battery into one of the charger's bays. The status light in front of each bay will flash green as the battery charges and will become steady green when it is fully charged. It normally takes about 3 hours to charge a fully discharged battery.

If the status light flashes red, the battery is either too cold or hot for the battery to charge. If the status light is a steady red, the battery is faulty and should be replaced.

When the battery is inserted in the pistol grip and the trigger is pulled, the battery status will appear in the status indicators on the side of the RFID reader (see Figure 5). The right-most indicator is the battery status. If the battery status indicator is green, then the battery is charged, if red or off, the battery should be charged.

Figure 5 - Status Indicators

The battery for the CN3 mobile computer is located in the back of the unit (see Figure 6).

Figure 6 - CN3 Mobile Computer with Battery

The CN3 mobile computer's battery can be charged in the CN3 mobile computer by placing the computer in the dock (see Figure 7).

Figure 7 - CN3 Mobile Computer in the Dock

When the CN3 mobile computer is in the dock, the battery status is displayed near the top of the unit. A steady green indicates the battery is fully charged, and if steady red, the battery is charging.

The dock can also charge a battery that has been removed from the mobile computer. This is located on the right hand side of the dock.

It normally takes about 5 hours to charge a fully discharged battery.

2.2. RFID Reader / Mobile Computer Communication

The RFID reader communicates with the mobile computer via Bluetooth, which is wireless. For this communications to occur, the RFID reader and the mobile computer must have a Bluetooth connection. On the side of the RFID reader is a number of status indicators (see Figure 5).

The left most indicator is the status of the Bluetooth communications with the mobile computer. When the RFID reader's trigger is pulled this indicator will either be a steady or flashing blue. If it is a steady blue, there is a Bluetooth connection with the mobile computer. A flashing blue indicates there is no connection.

The mobile computer must be turned on for a connection to be established.

If a Bluetooth connection cannot be established, depress and hold the mobile computer's yellow on/off button (bottom center, see Figure 8) until the mobile computer's status light flashes blue. This will cause the mobile computer to restart Windows. After Windows restarts the Softrail AEI program will automatically startup.
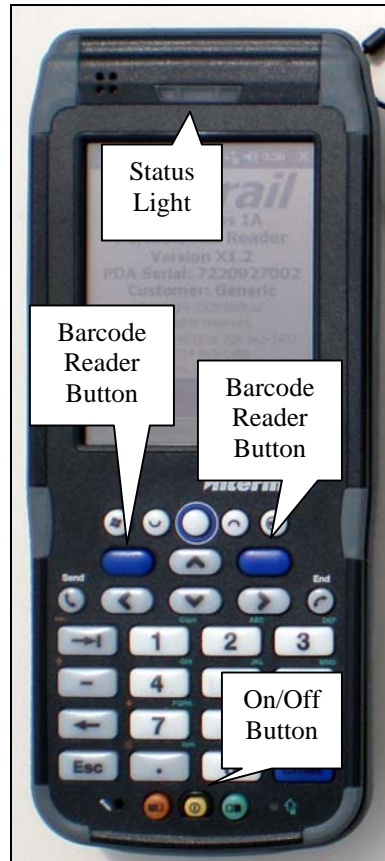

Figure 8 - Mobile Computer

If there is still a problem with the connection, it may be necessary to pair (Bluetooth) the RFID reader to the mobile computer. Normally these are paired prior to shipping.

To pair these devices, select the File/Start Wireless Reader Wizard menu item in the Softrail AEI program.

A button to Add and Remove a reader will appear.

If the Remove Reader button is active, tap this button. On the next screen, select the reader under the Data Collection title, tap the Remove button and the Finish button. Once again run the Wireless Reader Wizard by selecting the File/Start Wireless Reader Wizard menu item in the Softrail AEI program.

If the Remove Reader button is not active, tap the Add Reader button. On the next screen select the Search button, tap the Next button and pull the trigger on the RFID

reader. The mobile reader will begin searching for an RFID reader. On this screen make sure the Reader Only box is checked, and under the Connection Method, Data Collection is selected. If the RFID reader is not found, pull the trigger again on the RFID reader and tap the Search button.

Once an RFID reader is found, select the reader and tap the next button. When asked if you want to connect to the RFID reader, tap Yes. It will then ask you for a pass code. Enter "OOOO" and then tap next. The devices should now be paired and the left hand indicator on the RFID reader should be a steady blue when the trigger is pulled.

2.3. Reading AEI Tags

Normally Softrail's AEI Reader program will be running. To read an AEI tag, turn on the handheld reader's mobile computer by depressing the yellow button at the bottom center of the mobile computer. Either the screen in Figure 9 or Figure 10 should appear. If neither screen is displayed, pull the trigger on the pistol grip. If these screens fail to appear, the Softrail AEI program is not running.

If the Softrail AEI program is not running, depress and hold the mobile computer's yellow on/off button (bottom center) until the mobile computer's status light flashes blue. This will cause the mobile computer to restart Windows. After Windows restarts the Softrail AEI program will automatically startup.

Figure 9 - Encompass Information Display

Figure 10 - AEI Tag Display

To read an AEI tag pull the trigger on the pistol grip while pointing the handheld AEI reader at the AEI tag.

You will hear a beep, and the display will be updated when the AEI tag is read. Figure 10 is an example of what the screen will display when an AEI tag that contains rail vehicle information is read

If a tag fails to be read after 5 seconds, release the trigger.

3. ABOUT

To find information about the software version and the unit's serial number, tap the About menu item under the File menu, and the About display shown in Figure 11 will appear.

Figure 11 - About Display

4. MAINTENANCE AND COMMUNICATION LOGS

To help find problems with the handheld reader, the handheld reader maintains two logs. These are the maintenance log and the communications log.

4.1. Maintenance Log

The maintenance log is located in a text file called "maint log.txt".   It contains information about when various events occurred and if internal problems were detected.

To view the maintenance log tap the Maintenance Log menu item under the View menu.

The following is an example of information contained in this log:

12/29/2005 12:48 Start of program
12/29/2005 12:48 Could not open comm log file for clean up
12/29/2005 12:49 Program closed
12/29/2005 16:30 Start of program

To help find problems, Softrail may need to obtain a copy of the maintenance log.

4.2. Communications Log

The communications log is located in a text file called "comm log.txt". It contains information about communications between the handheld reader's mobile computer and other devices including the internal AEI RF reader. The internal RF reader is connected to the mobile computer 's serial communications port.

To view the communications log, tap the Communications Log menu item under the View menu.

The following is an example of information contained in this log:

```
12/29/2005 12:49 R (COM1) Received "*P=H@!?8MQD        S"
12/29/2005 12:49 R (COM1) Received "FX03!XD H1D       S"
12/29/2005 12:49 R (COM1) Received "FC2:?$@:P2D        S"
12/29/2005 12:49 R (COM1) Received "GCUH!MM@N1D         S"
```

To help find problems, Softrail may need to obtain a copy of the communications log.

5. TECHNICAL SUPPORT AND UPDATES

Periodically Softrail issues maintenance releases and new versions of this program. Maintenance releases are free and correct problems found with the program and/or provide minor enhancements to the program. Before contacting us with problems we suggest you contact your sales representative and review the issues with him and/or check our web page at www.aeitag.com to insure that you have the latest maintenance release of the program.

Technical support is free for the first one year after purchase, but is limited to two hours of support for each handheld reader that is purchased. Time is charged in blocks of 15 minutes.

A maintenance agreement can be purchased to extend the period of technical support or add additional hours.

For technical support or more information on the maintenance agreement contact Softrail at:

Softrail, Inc.
1098 Venetia Road
Eighty-Four, PA 15330

Tel. 888 872-4612 (toll free US and Canada only) or 724 942-1473
Fax. 724 942-1480
E-mail aei@signalcc.com
Web Page www.aeitag.com

Index