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Intermec



Quick Start Guide



Trakker Antares[®] 243X Handheld Terminal

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This product includes cryptographic software written by Eric Young (EAY@cryptsoft.com)

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About This Guide

This guide describes how to set basic parameters to start using the Trakker Antares® 2430 and 2435 terminals. You may need to refer to additional Intermec documents to configure the 243X for your data collection network. For a list of documents see “Where to Go From Here” on page 19.

Introducing the Trakker Antares 243X Terminals

The Trakker Antares 243X terminals are ergonomically designed handheld data collection terminals. You can use these programmable terminals to run custom applications or terminal emulation applications.



243XQ010.eps

Trakker Antares 243X Handheld Terminal

2430

This programmable terminal runs custom batch applications. You create applications for the terminal using the Trakker Antares Programmer's Software Kit (PSK) and Microsoft C/C++ functions. The 2430 has an integrated input/output (I/O) port to transmit data to and accept data from a host computer or other serial device using RS-232 communications.

2435

This terminal has all the capabilities of the 2430 with the additional ability for real-time communications through an RF network. The 2435 can communicate with a host either through the access points and the Intermec Gateway or Data Collection Server (DCS) 30X, or directly through the access points. The 2435 can also run client/server applications, TE 2000™ terminal emulation applications, and Data Collection Browser™ (dcBrowser™), which lets you run web-based applications.



The 2435 with an IEEE 802.11b radio installed is Wi-Fi certified for interoperability with other 802.11b wireless LAN devices.

Equipment You Need to Get Started

To use the terminal, you need the following equipment:

- Lithium-ion battery pack (P/N 073152)
- External power supply (P/N 065236) or Z2400 battery charger (P/N Z2400A) and external power supply



Note: Intermec recommends that you keep at least two battery packs on hand so that you can use one battery pack while the other is charging. You should keep a battery pack in the 243X at all times to prevent loss of data.

Using the Terminal for the First Time

Once you have the required equipment, follow these steps to start using your new terminal:

- 1 Unpack the terminal.
- 2 Charge and install the battery pack (sold separately).
- 3 Turn on the terminal.
- 4 Set the time and date.
- 5 (Optional) Configure the serial port parameters.
- 6 (2435 only) Configure the network parameters.

7 (2435 only) Configure the radio parameters.

These steps are described in detail in the next sections.



Note: The steps in this guide describe how to configure the 243X using the keypad. However, it may be easier to use the terminal's scanner to scan the bar codes in Chapter 6, "Configuration Command Reference," in the *Trakker Antares 2400 Family System Manual* (P/N 071389).

Unpack the Terminal

When you remove the terminal from its box, save the box and shipping material in case you need to ship or store the terminal. Check the contents of the box against the invoice for completeness. If there is a problem, contact your local Intermec service representative.

Charge and Install the Battery Pack



The lithium-ion battery pack that is used in this device may present a fire or chemical burn hazard if it is mistreated. Do not disassemble it, heat it above 100°C (212°F), or incinerate it.

Attention: Le paquet de piles d'ions de lithium qui est utilisé dans cet appareil peut présenter un risque feu ou un risque chimique de brûlure s'il est maltraité. Il ne faut pas le désassembler, le réchauffer à une température plus élevée que 100°C (212°F), ou l'incinérer.

You must fully charge the lithium-ion battery pack before you can use the terminal. The terminal will not operate without a battery pack.

To charge the battery pack

- Place the battery pack in an empty slot in the battery charger. The battery pack is fully charged in about 3 to 4 hours. For help, see the documentation that came with your battery charger.

- Install the battery in the 243X. For help, see the next procedure. Connect one end of the external power supply adapter cable (P/N 071776) to the external power supply, and connect the other end of the external power supply adapter cable to the power port on the 243X. The battery pack is fully charged in about 3 to 4 hours.



Warning

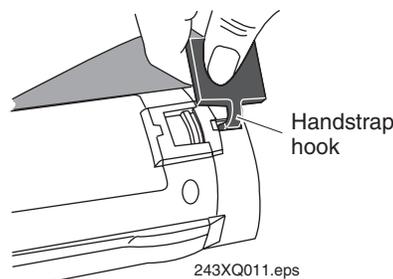
Replace the main battery pack with P/N 073152 only. The use of any other battery pack may present a risk of fire or explosion.

Attention Danger: Remplacez le bloc-batterie principal par la pièce réf. n° 073152 seulement. L'utilisation de tout autre bloc-batterie présente un risque d'incendie ou d'explosion.

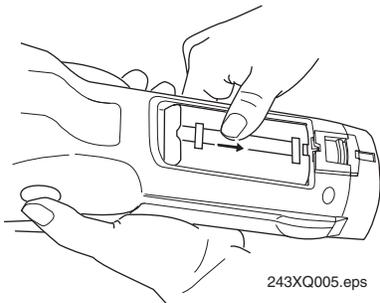
Contact your local Intermec sales representative for a replacement battery pack. **DISPOSE OF USED BATTERY PACKS PROMPTLY. KEEP THEM AWAY FROM CHILDREN.**

To install the battery pack

- 1 Remove the handstrap by rotating the handstrap hook 90 degrees left or right and unhooking it from the 243X.



- 2 Open the battery door. You may need to gently pry the door open with a pointed object. Remove the foam insert if necessary.
- 3 Place the main battery pack into the battery compartment with the contacts pointed toward the bottom of the 243X, and push the main battery pack down towards the bottom of the 243X until it locks into the connectors in the battery compartment.



- 4 Replace the battery door and handstrap.

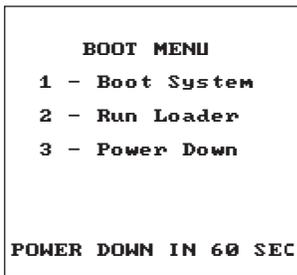
Turn On the Terminal

Before turning on the terminal, you should familiarize yourself with the terminal's keypad. For help, see "Using the Keypad" on page 15.

The Suspend/Resume key is the  key on the keypad. When you press  to turn off the terminal, the terminal does not actually shut off, but it goes into a Suspend mode. You can configure the terminal so that when you press  to turn it on, it either resumes exactly where it was when you turned it off or to boots and restarts your application.

To turn on the terminal for the first time

- 1 Press the  key. The terminal runs POST (power-on self test), and then the Boot Menu appears.



- 2 Press  to boot the terminal and initialize the firmware.

If you have a 2435 with TCP/IP or UDP Plus, the radio is enabled. The next screen or message you see depends on the type of application loaded on the 243X.

2430 or 2435 Programmable Terminal

A sample application screen appears with information about the radio, if you have one. The terminals ship loaded with at least these two applications stored on drive C: APPTSK.BIN and EM9560.BIN.

APPTSK.BIN is the default application. If you exit an application or if certain errors occur, the terminal resets and runs APPTSK.BIN. EM9560.BIN emulates a subset of the functionality available on the Intermec 95XX terminals. You can use either application to scan, enter, transmit, and display data. For help, see Appendix D in the 2400 Family system manual.

2435 Terminal With TE 2000 Application

The 2435 attempts to connect to the Intermec Gateway, DCS 30X, or directly to the host. Before you can start a TE session, you need to configure the radio parameters and the network parameters. You may also need to choose your TE configuration. For help, see “Choosing Your TE 2000 Configuration” on page 14.

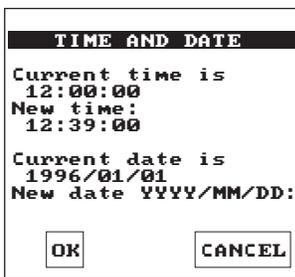
Set the Time and Date

- 1 Depending on your keypad, press    ,    , or the orange  key and then    to access the TRAKKER Antares 2400 Menu System. The Main Menu appears.



243X0050.eps

- 2 Select **System Menu** and press **ENTER**, and then select **Set Time and Date** and press **ENTER**. The Time and Date screen appears.



243XQ009.eps

- 3 Enter the current time in the format HH:MM:SS (hours, minutes, seconds). You must enter the colon character (:).
- 4 Enter the current date in the format YYYY/MM/DD (year, month, day). You must enter the forward slash character (/).
- 5 Press **ENTER**, and then press **Esc** twice to exit the TRAKKER Antares 2400 Menu System. Choose **OK** to save your changes.

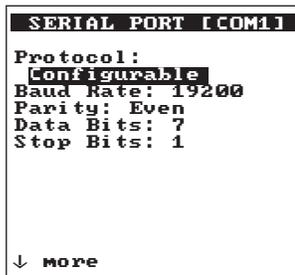
If you are using the Wavelink Avalanche client management system, you can quickly configure the parameters for your terminal. For help, see Chapter 2, “Configuring and Managing the Terminals” in the 2400 Family system manual.

(Optional) Configure the Serial Port Parameters

You can connect the terminal to a host computer, PC, or other RS-232 device using the serial adapter cable (P/N 216-807-001). You can also insert the terminal into the vehicle dock and connect the dock to the RS-232 device.

The values you set for the terminal’s serial port parameters must match the values set for the host’s (or other device’s) serial port parameters.

Press **FIELD EXIT** **2** **4** **8**, **RETURN** **2** **4** **8**, or the orange **FIELD EXIT** key and then **2** **4** **8** to access the TRAKKER Antares 2400 Menu System. Choose **Configuration Menu** > **Communications Menu** > **Serial Port [COM1]**.



243XQ156.eps

Serial Port [COM1] Menu

(2435 Only) Configure the Network Parameters

Before you can use the 2435, you need to install and configure the host and access points. You may also need to install and configure the Intermec Gateway or DCS 30X. Depending on your network protocol, the 2435 can communicate with a host computer either through access points and the Intermec Gateway or DCS 30X (UDP Plus or WTP network) or directly through the access points (TCP/IP network).

Press , , or the orange key and then to access the TRAKKER Antares 2400 Menu System. Choose **Configuration Menu**, **Communications Menu**, **Primary Network** or **Advanced Network**. You need to obtain most of these settings from your network administrator.



Note: If you are using the WTP network, you only need to configure the Primary Network parameters.

To configure the Primary Network parameters

- 1 Make sure that **2.4 GHz RF** (OpenAir radio) or **802.11 DS** (802.11b radio) appears in the **Activate** field.

If you are using the WTP network, you only need to configure the **Activate** field.

- 2 (UDP Plus) In the **Controller IP Address** field, enter the IP address of the Intermec Gateway or DCS 30X. The IP

address must be in the form *n.n.n.n*, where each *n* is a number from 0 to 255. You must separate each *n* by a period.

(TCP/IP) In the **Host IP Address** field, enter the IP address of the host that you want the terminal to communicate with. The IP address must be in the form *n.n.n.n*, where each *n* is a number from 0 to 255. You must separate each *n* by a period.

- 3 In the **Terminal IP Address** field, enter the IP address of the terminal. The IP address must be in the form *n.n.n.n*, where each *n* is a number from 0 to 255. You must separate each *n* by a period.

If you are using a DHCP (Dynamic Host Configuration Protocol) server, you can leave the default terminal IP address as 0.0.0.0 to enable the 2435 as a DHCP client. For help, see “DHCP (Terminal)” in the 2400 Family system manual.

To configure the Advanced Network parameters



Note: If the Intermec Gateway, DCS 30X, or host is on a different subnetwork from the terminal, you need to configure the subnet mask and the default router.

- 1 In the **Subnet Mask** field, enter the mask that is used to separate the subnetwork address from the terminal IP address. The subnet mask must be in the form *n.n.n.n*, where each *n* is either 0 or 255. You must separate each *n* by a period.
- 2 In the **Default Router** field, enter the IP address of the default router. The IP address must be in the form *n.n.n.n*, where each *n* is a number from 0 to 255. You must separate each *n* by a period.

(2435 Only) Configure the Radio Parameters

The 2435 communicates with a host computer in an RF network either through access points and the Intermec Gateway or DCS 30X or directly through the access points. All RF devices that communicate with each other must contain the same radios. The terminal ships with one of these radio options: WLI Forum OpenAir or IEEE 802.11b.

Depending on the radio that is in the devices, you must match certain parameters on the 2435s and on the access points.

Press    ,    , or the orange  key and then    to access the TRAKKER Antares 2400 Menu System. Choose **Configuration Menu > Communications Menu > Radio**.

To configure the OpenAir radio parameters

- 1 In the **Domain** field, enter a number from 0 to 15. The 243X can only communicate with access points that have the same domain.
- 2 In the **Security ID** field, enter up to 20 alphanumeric characters or leave the field blank. The 243X can only communicate with access points that have the same security ID.

To configure the 802.11b radio parameters

- 1 In the **Network Name** field, Enter up to 32 alphanumeric characters. The 243X only communicates with access points that have the same network name.
- 2 Configure the security parameters:
 - (non-802.1x security) Enable **WEP Encryption** and select a **WEP Transmit Key**. Enter a WEP key value: WEP 64 requires 5 ASCII characters or hex pairs, and WEP 128 requires 13 ASCII characters or hex pairs.
 - (802.1x security) Configure the **User Name** and **Password**.

Choosing Your TE 2000 Configuration

If you have a TE 2000 application, your terminal is configured for TE 2000 VT/ANSI by default. You may need to change the configuration to TE 2000 5250 or TE 2000 3270.

To change the TE 2000 configuration

- 1 On your terminal, press  . The TE 2000 main menu appears.

- 2 Select **Set-up Parm**s and press **ENTER**. A password prompt appears.
- 3 Type **C R 5 2 4 0 1** and press **ENTER**.
- 4 Select **Protocol Opt**s, **Data Stream**, and then select the appropriate TE 2000 configuration.
- 5 Save your changes by selecting **Exit Menu**s from the TE 2000 main menu. Press **Y**, and type **C R 5 2 4 0 1** at the Enter Password prompt.

For information about using TE 2000 terminal emulation, see the appropriate TE 2000 guide listed on page 19.

Using the Keypad

Characters, symbols, and functions are printed in four places on or above the keys. The keypad overlays are also color-coded to make it easier to remember key combinations.

Using the Keypad

Position on the Keypad	Color	To Type the Character
Printed on the key		Press the key.
Left side above the key	Orange	Press the  key, and then press the key.
Centered above the key	Pink	Press the  key, and then press the key.
Right side above the key	Blue	Press the  key, and then press the key.

You can also use the arrow keys to move around an application screen. To go up or down the screen, press  or . To go left or right, press  or .

Learning About the Bar Code Symbologies

Although the 243X can decode many types of bar code symbologies, only three symbologies are enabled when you unpack the terminal: Code 39, Code 128, PDF417 (PDF417 tethered scanner only), and UPC/EAN. You need to configure the terminal to decode the bar code symbology used in your bar

code labels. Only enable the bar code symbologies that you need to scan.

Changing the Beep Volume

The 243X has a beeper that provides you with audio feedback.

To change the beep volume

- Press    ,    , or the orange  key and then     to access the TRAKKER Antares 2400 Menu System. Choose **Configuration Menu > Terminal Menu > Beeper**.

Learning About the Status Icons

You can use the status icons on the right side of the screen to monitor the status of battery power, special keys, and network communications. These icons only turn on to indicate current status and are disabled by default.

To enable the status icons

- Press    ,    , or the orange  key and then     to access the TRAKKER Antares 2400 Menu System.
- Choose **Configuration Menu > Terminal Menu > Display**.
- Set the **Display Video Mode** command to normal display with icons (**Nrm/Icon**) or inverse display with icons (**Inv/Icon**).

Status Icon Descriptions

Icon	Name	Description
	Battery	This icon turns on when there is a low battery charge and the terminal is on.
	Network Connect	This icon tells you if the 2435 is connected to your network. The Network Connect status icon may be off, blinking, or on.
	Network Transmit	This icon turns on when data is buffered in the RF network interface.

Status Icon Descriptions (continued)

Icon	Name	Description
	Modifier Key	This icon indicates that one of the modifier keys, such as  , is enabled.
	Caps Lock	This icon turns on when you press  to enable the Caps Lock feature.
	User Defined	This icon is user defined. You can program this icon to turn on and off for any task or error within your application.

Useful Bar Codes

Backlight On



%.1

Backlight Off



%.0

Darker Display Contrast



\$+DJ9

Brighter Display Contrast



\$+DJ8

Raise Beep Volume



\$+BV9

Lower Beep Volume



\$+BV8

Enter Accumulate Mode



+/

Exit Accumulate Mode



-/

Default Configuration



.0

Reset Firmware



.

Save Configuration in Flash Memory



.1

Boot Terminal



-.1

TRAKKER Antares 2400 Menu System



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Specifications

This section lists some specifications for the terminals. For a complete list of specifications, see Appendix A, “Specifications,” in the user’s manual.

Physical Dimensions

Length: 25.4 cm (10 in)
Height: 4.6 cm (1.8 in) at grip
Width: 10.2 cm (4 in) at screen
Weight: 708.7 g (25 oz) with battery

Power Specifications

Operating: Rechargeable 2200 mAh battery pack
Backup: Rechargeable capacitor

Electrical Specifications

Models: 2430, 2435
Electrical Rating: $\overline{\text{---}}$ 7,4 to 12V; 1,15A

Temperature and Environmental Specifications

Charging temperature: 0°C to 40°C (32°F to 104°F)
Operating temperature:
 Standard 243X: -20°C to 50°C (-4°F to 122°F)
 Cold-Temp 243X: -30°C to 50°C (-22°F to 122°F)
Storage temperature: -20°C to 50°C (-4°F to 122°F)
Relative humidity: 0 to 95% non-condensing
Environmental rating: IP54



Note: The cold-temperature option supports excursions into a -30°C (-22°F) environment for limited durations. Using this option severely affects battery life. For help, see Chapter 1, “Learning About the Terminal” in the user’s manual.

Where to Go From Here

Now that your new terminal is working, you may need additional information to use the 243X in your data collection system:

- The *Trakker Antares 243X Handheld Terminal User's Manual* (P/N 071791) and the *Trakker Antares 2400 Family System Manual* (P/N 071389) contain all the information necessary to configure, operate, and troubleshoot the 243X.
- These TE 2000 terminal emulation guides provide information about how to configure TE 2000 terminal emulation: the *TE 2000 5250 Terminal Emulation Programmer's Guide* (P/N 977-055-004), the *TE 2000 3270 Terminal Emulation Programmer's Guide* (P/N 977-055-003), and the *TE 2000 VT/ANSI Terminal Emulation Programmer's Guide* (P/N 977-055-005).
- For additional help using dcBrowser, see the online help that ships with the dcBrowser gateway software, or see the *Data Collection Browser Client User's Guide* (P/N 070011).

The Intermec web site at www.intermec.com provides our current manuals as PDF files for you to download.

To order accessories and printed documentation, contact your local Intermec representative.



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P/N 071792-004