

The Intermec logo, featuring the word "Intermec" in a bold, italicized sans-serif font with a diagonal slash through the letter "I".

Intermec



Quick Start Guide



**Trakker Antares®
243X Hand-Held
Terminal**

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This product with the 802.1x security option includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (<http://www.openssl.org/>).

This product with the 802.1x security option includes cryptographic software written by Eric Young (ey@cryptsoft.com).

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There are U.S. and foreign patents pending.

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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 the last page of this guide.

Introducing the Trakker Antares 243X Terminals

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

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 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 068537)
- External power supply (P/N 065236) or Z2400 battery charger (P/N Z2400A)



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 procedures 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).

1 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.

2 Charge and Install the Battery Pack



Caution

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.

Conseil

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 068537 only. The use of any other battery pack may present a risk of fire or explosion.

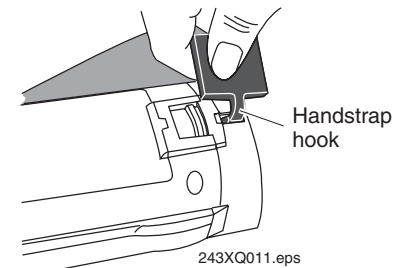
Avertissement

Remplacez le bloc-batterie principal par la pièce réf. n° 068537 seulement. L'utilisation de tout autre bloc-batterie présente un risque d'incendie ou d'explosion.

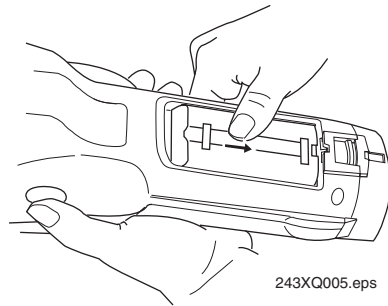
Contact your local Intermec sales representative for a replacement battery pack. **DISPOSE OF USED BATTERY PACKS PROMPTLY. KEEP THEM AWAY FROM CHILDREN.**

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.



- 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.
- Replace the battery door and handstrap.



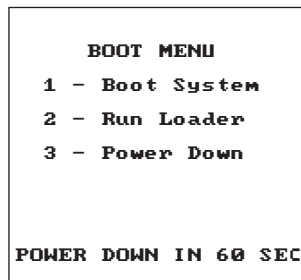
3 Turn On the Terminal

Before turning on the terminal, you should familiarize yourself with the terminal's keypad. For help, see "Using the Keypad" on page 13.

The Suspend/Resume key is the I/O key on the keypad. When you press I/O to turn off the terminal, the terminal does not actually shut off, but it goes into a Suspend mode. When you press I/O to turn on the terminal, you can configure the terminal either to resume exactly where it was when you turned it off or to boot and restart your application.

To turn on the terminal for the first time

- Press the I/O key. The terminal runs POST (power-on self test), and then the Boot Menu appears.
- Press 1 to boot the terminal and initialize the firmware.



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.

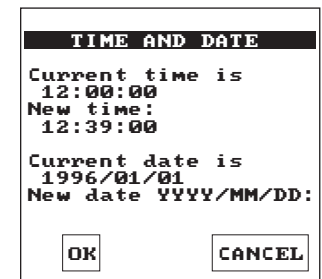


Note: If you have the 802.1x security option, APPTSK.BIN and EM9560.BIN are not available. A cursor appears in the upper left corner of the screen.

2435 Terminal With TE 2000 Application The 2435 attempts to connect to the 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 12.

4 Set the Time and Date

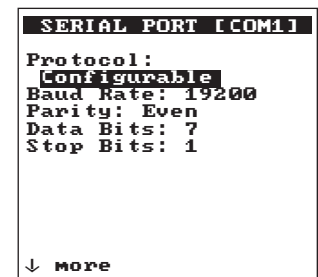
- Depending on your keypad, press FIELD EXT or 2 4 8 or RETURN 2 4 8 to access the TRAKKER Antares 2400 Menu System. The Main Menu appears.
- Select the System Menu and press ENTER . And then select the Set Time and Date command and press ENTER . The Time and Date screen appears.
- Enter the current time in the format HH:MM:SS (hours, minutes, seconds). You must enter the colon character (:).
- Enter the current date in the format YYYY:MM:DD (year, month, day). You must enter the colon character (:).
- Press ENTER , and then press Esc twice to exit the TRAKKER Antares 2400 Menu System. Choose OK to save your changes.



5 (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 or to access the TRAKKER Antares 2400 Menu System. Choose Configuration Menu, Communications Menu, and Serial Port [COM1].

6 (2435 Only) Configure the Network Parameters

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

Press or to enter 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 do not need to configure the Advanced Network parameters.

To configure the Primary Network parameters

1. In the Activate field, press or to select 2.4 GHz RF (OpenAir radio) or 802.11 DS (802.11b radio).

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 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 in a TCP/IP network, 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.

```

PRIMARY NETWORK
Activate:
  Disabled
Host IP Addr:
  0.0.0.0
Terminal IP Address:
  0.0.0.0
  
```

243XQ062.eps

To configure the Advanced Network parameters



Note: If the DCS 30X or the host is on a different subnetwork from the terminal, you must 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.

```

ADVANCED NETWORK
Loopback: Disabled
Network Port: 05555
Subnet Mask:
  255.255.255.0
Default Router:
  0.0.0.0
Controller Connect Chk
Send Timer: 0035 sec
Recv Timer: 0060 sec
Retries: 07
more
  
```

243XQ041.eps

7 (2435 Only) Configure the Radio Parameters

The 2435 communicates with a host computer in an RF network either through access points and the 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 to enter the TRAKKER Antares 2400 Menu System. Choose Configuration Menu, Communications Menu, and then 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.

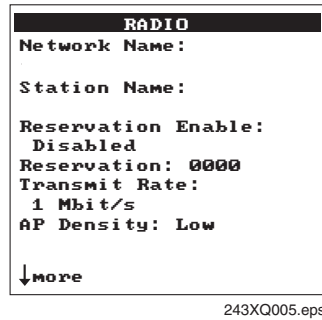
```

RADIO
Domain: 00
Security ID:
  (ID unchanged)
Wakeup on Broadcast:
  No
Roam Flag:
  Allowed
Transmit Mode: BFSK
Inactivity Timeout:
  5 sec
  
```

243XQ013.eps

To configure the 802.11b radio parameters

- In the Network Name field, Enter up to 32 alphanumeric characters. The 243X only communicates with access points that have the same network name.
- 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.

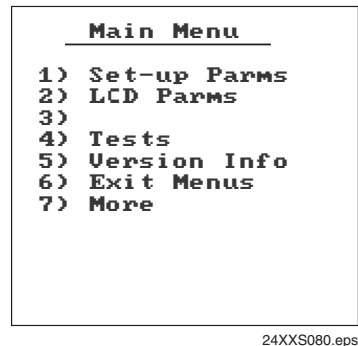


Choosing Your TE 2000 Configuration

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

- On your terminal, press **ESC** **ESC**. The TE 2000 main menu appears.
- Select Set-up Params and press **ENTER**. A password prompt appears.
- Type **C** **R** **5** **2** **4** **0** **1** and press **ENTER**.
- Select Protocol Opts, Data Stream, and then select the appropriate TE 2000 configuration.
- Save your changes by selecting Exit Menus 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 the last page of this guide.

Using the Keypad

The keypads are easy to use. 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.

| 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 Symbolologies

Although the 243X can decode many types of bar code symbolologies, only three symbolologies are enabled when you unpack the terminal: Code 39, Code 128, 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 symbolologies 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 **FIELD EXIT** **2** **4** **8** or **RETURN** **2** **4** **8** to enter the TRAKKER Antares 2400 Menu System. Choose Configuration Menu, Terminal Menu, and then 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 **FIELD EXIT** **2** **4** **8** or **RETURN** **2** **4** **8** to enter the TRAKKER Antares 2400 Menu System.

2. Choose Configuration Menu, Terminal Menu, and then Display.
3. 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. |
| | 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



-.

TRAKKER Antares 2400 Menu System



..-.

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

| | |
|---------|------------------------------|
| 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 1500 mAh battery pack |
| Backup: | Rechargeable capacitor |

Electrical Specifications

| | |
|--------------------|----------------------|
| Models: | 2430, 2435 |
| Electrical Rating: | ---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-Temperature 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 Hand-Held 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 documentation that ships with your DCS 30X, the dcBrowser gateway software, or the *Data Collection Browser Client User’s Guide* (P/N 070011).

The Intermec Web site at www.intermec.com provides many of our current manuals in PDF format for you to download.

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



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