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Intermec



Addendum



**Trakker Antares[®]
246X Stationary
Terminal**

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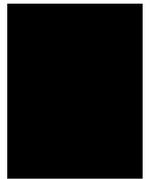
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There are U.S. and foreign patents pending.



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About This Addendum

This addendum contains the latest information about Trakker Antares® 2460 and 2461 terminals with firmware versions 6.10 to 6.23. This information supplements the information provided in the *Trakker Antares 246X Stationary Terminal User's Manual* (Part No. 068575). For more information about the topics covered in this addendum, refer to your user's manual.

The hardware and software on Trakker Antares terminals have been updated substantially to improve efficiency and ease of use. These changes are not reflected in the user's manual, but they are described here in detail. If there are any conflicts between the information in the Trakker Antares user's manual and this addendum, use the information in this addendum.

If you have an earlier version of firmware, you can download version 6.23 at no charge from the Intermec Web site at www.intermec.com. If you are using firmware version 5.1X or earlier and you are not going to upgrade to firmware version 6.23, use your Trakker Antares user's manual and disregard this addendum.

What's New?

These general modifications were made to supported features for firmware versions 6.10 to 6.23:

- With firmware version 6.13 and later, you can store up to 128 files on each terminal drive.
- With firmware version 6.20 and later, two bar code symbologies are no longer supported: Code 16K and Code 49.
- The Trakker Antares Programmer's Software Kit (PSK) and EZBuilder are available at no charge from the Intermec Web site at www.intermec.com.

Additionally, this addendum describes these features and changes in detail:

- Support for the Euro symbol (€)
- Modifications for configuring through the network
- Enhanced application support for new and modified applications: VIEW246X.EXE application to view the contents of drive C, modified 95XX emulation features, BSD sockets support through the Trakker Antares PSK
- New and enhanced configuration commands: Beep Duration, DHCP (Terminal), Interleaved 2 of 5 Enhancements, Keypad Control, RS-232 or RS-422/485 COM2 Interface Update, Symbology Identifiers, UPC/EAN Enhancements
- Troubleshooting PSK and EZBuilder applications

Support for the Euro Symbol

Trakker Antares terminals use an English and Western European font set that supports languages such as French, German, Italian, Portuguese, and Spanish. With firmware version 6.13 and later, the font set supports the Euro symbol (€).

The next table contains more information about the Euro symbol. The terminal keys and the decimal, scan code, and hexadecimal values are the same for all keypads and overlays.

Character	Terminal Keys	Decimal	Scan Code	Hexadecimal
€		213	5C	D5



Note: The Euro symbol (€) replaces the previous symbol at decimal value 213.

Modifications for Configuring Through the Network

When you install the terminal in a network, you need to configure a set of network parameters that control how the terminal communicates in the network. With firmware version 6.13 and later, you can modify most RF network parameters through the network, except for the following parameters:

- DHCP
- Network Activate
- TCP Maximum Retries
- TCP/IP Maximum Transmit Timeout

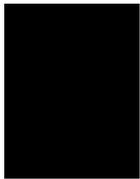
You can still modify these parameters as indicated in Chapter 8, “Configuration Command Reference” in your user’s manual.

Enhanced Application Support

This section describes new and modified applications and application support.

VIEW246X.EXE Application

Trakker Antares firmware version 6.20 and later includes the VIEW246X.EXE application. If you have a 246X terminal with firmware version 6.15 or later, you can run VIEW246X.EXE on your PC and use this application to view the contents of your terminal’s Drive C.



To use VIEW246X.EXE to view the contents of your 246X's Drive C

1. Download firmware version 6.20 to your PC. Make sure that VIEW246X.EXE is in the same folder as FLASHLDR.BIN.
2. Make sure the 246X is turned off, and connect it to a port on your PC.
3. Open an MS-DOS window on your PC and run VIEW246X.EXE. Make sure the current working directory displays the folder with VIEW246X.EXE.
4. Press **I** to turn on the 246X.

The 246X boots, and you are ready to use VIEW246X.EXE to view the contents of your 246X's drive C. You can use the help command to display the application options.

When you run VIEW246X.EXE, you can also use the following command to select which port you want to use on the host PC:

Command Name	Syntax
Host Port (default COM1)	/comn where <i>n</i> is: 1 COM1 2 COM2 3 COM3 4 COM4

For example, to select the COM2 port on your PC, enter the following command at the MS-DOS prompt:

```
view246X/com2
```

95XX Emulation Features

Trakker Antares 246X terminals ship with the EM9560.BIN application. With this application, the terminal operates like a 95XX in Data Entry mode with no application running.

The following new 95XX features are supported by the EM9560.BIN application on the 246X with firmware version 6.12 and later:

- Buffered and transparent display modes are supported. The Display Setting configuration command (OD) is also supported.
- You can emulate Accumulate mode so that keypad data can be combined with scanned data.

The following new 95XX feature is supported by the EM9560.BIN application on the 246X with firmware version 6.15 and later:

- Message length headers indicating the length of the message are supported.

Using Display Modes

With the EM9560.BIN application, you can use Buffered display mode and Transparent display mode. In Buffered mode, new data is placed on a new line keeping blocks of data separated. In Transparent mode, new data is placed at the current cursor position, which makes screen formatting by the host easier.

Run the EM9560.BIN application before you set the display mode emulation feature.

Syntax: DM*data*

Acceptable values for *data* are:

- 0 Buffered display mode
- 1 Transparent display mode

Default: Transparent display mode

Scan: One of these bar codes:

Buffered Display Mode



\$+DM0

Transparent Display Mode



\$+DM1

Other: To provide compatibility with the 95XX, you can also use this syntax:

OD*data*

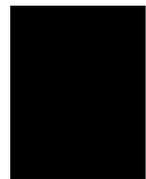
where *data* is a 0 or 1.

Using Accumulate Mode

With the EM9560.BIN application, you can emulate Accumulate mode (Emulation mode) and combine keypad data with scanned data. Data that you accumulate appears on the bottom line of the terminal screen. You can edit this data using the reader commands for backspace and clear, or you can use the  key.

You scan a bar code to toggle between Emulation mode and native Trakker Antares mode. Run the EM9560.BIN application before you set the accumulate mode emulation feature.

Default: Native mode



Note: To set this command using bar code labels, you must also use the bar code labels in Appendix B of your user’s manual. To use these labels, you need to configure the terminal to use Code 39 in Full ASCII mode. For help, see “Code 39” in Chapter 8, “Configuration Command Reference,” in your user’s manual.

Scan: To use Emulation mode:

1. Scan this bar code:

Toggle Emulation Mode/Native Mode



ACCUMULATE

2. Scan this bar code:

Enter Accumulate Mode



+/

3. Scan data from the “Full ASCII Bar Code Chart” in Appendix B or type data using the keypad.
4. Scan this bar code:

Exit Accumulate Mode



-/

Using Message Length Headers

If you have a 246X terminal with firmware version 6.15 and later, you can use the EM9560.BIN application to add message headers that indicate the length of the message. When you send or receive a message, the application prepends a header to the message. If the message being received already has a header, the application strips the existing header and prepends the new message length header.

You can create a two-byte binary header, a four-byte ASCII header, or a mixed mode header. A mixed mode header pre-appends a four-byte ASCII header to received messages and a two-byte binary header to sent messages.



Note: The EM9560.BIN application must be running on your terminal before you can use message length headers.

Using Message Length Headers (continued)

Syntax: NH*data*

Acceptable values for *data* are:

- 0 No header
- 1 Two-byte binary header on messages sent and received
- 2 Four-byte ASCII header on messages sent and received
- 3 Four-byte ASCII header on messages sent and two-byte binary header on messages received

Default: No header

Scan: One of these bar codes:

No Header



\$+NH0

Two-Byte Binary Header



\$+NH1

Four-Byte ASCII Header



\$+NH2

Four-Byte ASCII / Two-Byte Binary Header



\$+NH3

BSD Sockets

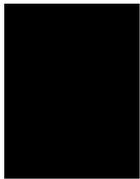
The Trakker Antares terminals support a subset of the BSD (Berkeley Software Distribution) sockets interface for network communications. This interface is only available in a TCP/IP network.

The terminals support the following subset of BSD 4.3 socket-specific functions:

- bind
- closesocket
- connect
- fcntlsocket
- getsockname
- getsockopt
- im_get_IP_addr (gethostbyname)
- recv
- send
- setsockopt
- shutdown
- socket

These socket functions are supported in the Trakker Antares Programmer's Software Kit (PSK) version 4.4 and later. You can download the latest version of the PSK from the support page on the Intermec Web site at www.intermec.com.

For more information about these socket functions and using the PSK to create programs, see the *Trakker Antares Application Development Tools System Manual* (Part No. 064433).



Configuration Command Updates

This section describes the following new and updated configuration commands:

- Beep Duration
- DHCP (Terminal)
- Interleaved 2 of 5 Enhancements
- Keypad Control
- RS-232 or RS-422/485 COM2 Interface Update
- Symbology Identifiers
- UPC/EAN Update

Beep Duration

Description: Sets the length of the terminal's audio signals. You can define a different duration for the high and the low beep tone. Use the beep duration with the beep volume to define beeps according to operator preference and work environment.

Syntax: *BDdatabeep*

Acceptable values for *data* are any number from 2 to 7999 ms.

Acceptable values for *beep* are:

H	High
L	Low

Default: 50 ms, high and low beep tones

Scan: To set the default beep duration, scan this bar code:

Default Beep Duration



\$+BD50HBD50L

Or: To set a beep duration:

1. Scan this bar code:

Enter Accumulate Mode / Set Beep Duration



+/\$+BD

Beep Duration (continued)

2. Scan a numeric value for *data* from these bar codes:



0



1



2



3



4



5



6



7



8



9

3. Scan the beep tone for which you are setting the beep duration:

High



H

Low



L

4. Scan this bar code:

Exit Accumulate Mode

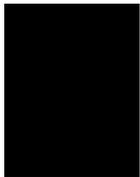


/

DHCP (Terminal)

Description: When DHCP (Dynamic Host Configuration Protocol) is enabled on the terminal, the terminal can receive terminal IP addresses dynamically from the DHCP server. With firmware version 6.20 and later, you can use DHCP on a TCP/IP network to allocate permanent terminal IP address assignments.

The DHCP configuration command described in these instructions differs from the DHCP command available in previous firmware versions. The previous DHCP command that supports UDP Plus networks and allocates controller IP addresses is still available.



DHCP (Terminal) (continued)



Note: Trakker Antares terminals that use the DHCP configuration command described in these instructions should not be used in leased DHCP environments.

The DHCP settings are:

- Enabled (default)
- Disabled

If you are using a DHCP server in your Ethernet network and DHCP is enabled on the terminal, the terminal acts as a DHCP client. The DHCP server then assigns the following network parameters:

- Terminal IP Address
- Subnet Mask (optional)
- Default Router (optional)

The terminal automatically updates its parameters with those received from the DHCP server. The parameters assigned by the DHCP server are not permanently stored on the terminal. These parameters are reset each time you reboot the terminal.

Syntax: N/A

Default: Enabled

Bar Codes: To use bar codes and enable the terminal to use DHCP:

1. Set the Terminal IP Address.
 - To enable DHCP, set the Terminal IP Address to the default value of 0.0.0.0.

Default Terminal IP Address



\$+ND0.0.0.0

- To disable DHCP, set the Terminal IP Address to a value other than 0.0.0.0. For help, see “Terminal IP Address” in Chapter 8, “Configuration Command Reference,” in your user’s manual.
2. Set the Network Activate command to enabled.

Enable RF or Ethernet Network



\$+NA1

Interleaved 2 of 5 Enhancements

Description: Interleaved 2 of 5 (I 2 of 5) is a high-density, self-checking, continuous numeric symbology. With firmware version 6.15 and later, you can now set two additional parameters.

Syntax: *CAdata*

Additional values for *data* are:

- 95 Case code (6 or 14) with check digit verified but discarded
- 96 Variable length with check digit verified but discarded

Existing values for *data* are 0, 2-32, 97, 98, and 99. Only the new values for *data* are described in this section. For more information about the existing values, see “Interleaved 2 of 5” in Chapter 8, “Configuration Command Reference,” in your user’s manual.

Default: Disabled

Scan: One of these bar codes:

Enable Case Code With Check Digit
Verified But Discarded



\$+CA95

Enable Variable Length With Check Digit
Verified But Discarded



\$+CA96

Keypad Control

Description: Enables or disables the keypad. When you disable the keypad, you cannot use the keypad to enter information into the terminal.

Syntax: *KEdata*

Acceptable values for *data* are:

- 0 Disable keypad
- 1 Enable keypad

Default: Enabled

Scan: One of these bar codes:

Disable Keypad

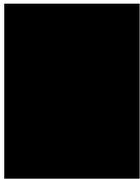


\$+KE0

Enable Keypad



\$+KE1



RS-232 or RS-422/485 COM2 Interface Update

Description: Defines the interface for the COM2 communications port. If you have a 2460 with an enhanced input/output board, you can use COM2 for either RS-232 or RS-422/485 communications.

The RS-485 interface is only available on terminals using Multi-Drop protocol in a CrossBar network.

Syntax: YK2.*data*

Acceptable values for *data* are:

0	RS-232
1	RS-422/485

Default: RS-232

Bar Codes: To set the interface for COM2, scan one of these bar codes:

Enable RS-232 Interface



\$+YK2.0

Enable RS-422/485 Interface



\$+YK2.1*

Symbology Identifiers

Description: With firmware version 6.20 and later, you can use symbology identifiers to indicate the type of data being sent by prepending an identifier to the data. You can prepend one of the following types of character strings to identify which symbology the data is using:

AIM ISO/IEC Standard The AIM Standard symbology identifiers consists of a three-character structure indicating the symbology and the optional features of the symbology. For more information about the AIM Standard for symbology identifiers, refer to the AIM ISO/IEC Standard.

User-Defined ASCII Character String The user-defined symbology identifier is one to four ASCII characters in length. You can configure user-defined symbology identifiers to assign custom identifier strings to the bar code symbologies.

The Symbology Identifiers command contains four parameters. To disable or enable all symbology identifiers to the ISO/IEC Standard, you need to configure the first two parameters. To enable a user-defined symbology identifier, you need to configure all four parameters.

Symbology Identifiers (continued)

Syntax: *CYdata*

where *data* must be 3 to 8 digits selected from this list of parameters:

<i>Parameter 1:</i>	00	All Symbology IDs (Disabled or ISO/IEC Standard Enabled)
	01	Code 39
	02	Code 128
	03	Codabar
	04	Code 93
	05	Code 11
	06	Interleaved 2 of 5
	08	PDF 417
	09	MSI
	10	Plessey
	11	Code 2 of 5 with 2 bar start/stop codes
	12	Code 2 of 5 with 3 bar start/stop codes
	16	UPC-A
	17	UPC-E
	18	EAN-8
	19	EAN-13
<i>Parameter 2:</i>	0	Disabled
	1	ISO/IEC Standard (Enabled)
	2	User-defined
<i>Parameter 3:</i>	1	User-defined character string length of 1
	2	User-defined character string length of 2
	3	User-defined character string length of 3
	4	User-defined character string length of 4
<i>Parameter 4:</i>	xxxx	ASCII string of 1 to 4 characters in length indicating the user-defined value.

Default: 000

Parameter 1: All Symbology IDs
Parameter 2: Disabled



Note: To set a user-defined symbology identifier using the bar code labels in Appendix B, you need to configure the terminal to use Code 39 in Full ASCII mode. For help, see “Code 39” in Chapter 8, “Configuration Command Reference,” in your user’s manual.



Symbology Identifiers (continued)

Bar Codes: To set the default configuration and disable all symbology identifiers, scan this bar code:

Disable All Symbology Identifiers

 \$+CY000

Or: To set all symbology identifiers to the ISO/IEC Standard, scan this bar code:

Enable ISO/IEC Standard For All Symbology Identifiers

 \$+CY001

Or: To enable or disable the ISO/IEC Standard for one or more symbologies, or to set a user-defined symbology identifier for one or more symbologies:



Note: You need to set all symbology identifiers to the ISO/IEC Standard before you can set a user-defined symbology identifier.

1. Set all symbology identifiers to the ISO/IEC Standard by scanning this bar code:

Enable ISO/IEC Standard For All Symbology Identifiers

 \$+CY001

2. Scan this bar code:

Enter Accumulate Mode / Set Symbology Identifiers

 +/\$+CY

3. Scan one of these bar codes:

All Symbology IDs

 00

Code 39

 01

Code 128

 02

Codabar

 03

Symbology Identifiers (continued)

Code 93



04

Code 11



05

Interleaved 2 of 5



06

PDF 417



08

MSI



09

Plessey



10

Code 2 of 5
With 2 Bar Start/Stop Codes



11

Code 2 of 5
With 3 Bar Start/Stop Codes



12

UPC-A



16

UPC-E



17

EAN-8



18

EAN-13



19

4. Scan one of these bar codes:

Disable Symbology ID



0

Enable ISO/IEC Standard Symbology ID



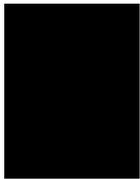
1

Enable User-Defined Symbology ID



2

If you enabled a user-defined symbology identifier, continue with Step 5. Otherwise continue with Step 7.



Symbology Identifiers (continued)

- Scan a numeric value for the character string length of the user-defined symbology identifier from these bar codes:



- Scan a value for the user-defined symbology identifier from the “Full ASCII Bar Code Chart” in Appendix B of the user’s manual. The user-defined symbology identifier should be one to four characters in length depending on the character string length value that you scanned in Step 5.
- Repeat Steps 3 to 6 to configure another symbology identifier.
- Scan this bar code:



Example 1: You want to enable the ISO/IEC Standard symbology identifier for all bar code symbologies except Plessey.

- Scan this bar code:



- Scan this bar code:



Example 2: You want to enable a user-defined symbology identifier that is four characters in length (UPCA) for UPC-A.

- Scan this bar code:



Symbology Identifiers (continued)

2. Scan this bar code:

Enable 4-Character User-Defined Symbology ID (UPCA) for UPC-A



\$+CY1624UPCA

UPC/EAN Enhancements

Description: This CE command enables or disables the decoding of Universal Product Code (UPC)/European Article Numbering (EAN) symbology.

To define the UPC/EAN symbology, you set up to seven digits. The second digit now has an added option for expanding zeroes in UPC-E, and the fourth digit now has additional options for supplementals.

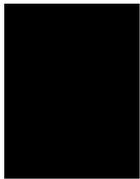
The supplemental portion of a UPC or EAN label is a weak symbology and can be missed by the scanner for several reasons. In situations where supplementals are known to be present, reading just the main symbol can be prevented until a valid supplemental is found. When using a laser scanner, performance degradation is not noticeable.

The fifth, sixth, and seventh digits are optional. To set the sixth digit, you need to set the fifth digit. To set the seventh digit, you need to set all seven digits.

Syntax: *CEdata*

where *data* must be 4 to 7 digits selected from this list:

<i>First digit:</i>	0	UPC-A/EAN-13 disabled
	1	UPC-A/EAN-13 enabled
	2	UPC-A only enabled
<i>Second digit:</i>	0	UPC-E disabled
	1	UPC-E enabled
	2	Expanded zeroes
<i>Third digit:</i>	0	EAN-8 disabled
	1	EAN-8 enabled
<i>Fourth digit:</i>	0	Supplementals not allowed
	1	Supplementals allowed
	2	Supplementals required
	3	Two-digit supplementals required
	4	Five-digit supplementals required
<i>Fifth digit:</i>	0	Discard check digit
	1	Transmit check digit



UPC/EAN Enhancements (continued)

<i>Sixth digit:</i>	0	Discard number system digit
	1	Transmit number system digit
<i>Seventh digit:</i>	0	Discard the leading zero for UPC-A
	1	Retain the leading zero for UPC-A

Default: 1111111

<i>First digit:</i>	UPC-A/EAN-13 enabled
<i>Second digit:</i>	UPC-E enabled
<i>Third digit:</i>	EAN-8 enabled
<i>Fourth digit:</i>	Supplementals allowed
<i>Fifth digit:</i>	Transmit check digit
<i>Sixth digit:</i>	Transmit number system digit
<i>Seventh digit:</i>	Retain leading zero for UPC-A

Scan: To disable UPC/EAN, scan this bar code:

Disable UPC/EAN



\$+CE0000000

Or: To enable UPC/EAN:

1. Scan this bar code:

Enter Accumulate Mode / Enable UPC/EAN



+/\$+CE

2. Scan one of these bar codes to set the first digit:

Disable UPC/EAN-13



0

Enable UPC/EAN-13



1

Enable UPC-A Only



2

UPC/EAN Enhancements (continued)

3. Scan one of these bar codes to set the second digit:

Disable UPC-E



0

Enable UPC-E



1

Expand Zeroes



2

4. Scan one of these bar codes to set the third digit:

Disable EAN-8



0

Enable EAN-8



1

5. Scan one of these bar codes to set the fourth digit:

Supplementals Not Allowed



0

Supplementals Allowed



1

Supplementals Required



2

Two-Digit Supplementals Required



3

Five-Digit Supplementals Required



4

6. (Optional) Scan one of these bar codes to set the fifth digit:

Discard Check Digit



0

Transmit Check Digit



1

7. (Optional) Scan one of these bar codes to set the sixth digit:

Discard Number System Digit

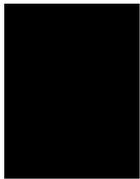


0

Transmit Number System Digit



1



UPC/EAN Enhancements (continued)



Note: If you discard the number system digit, one leading digit is discarded from UPC-A, UPC-E, and EAN-8, and two leading digits are discarded from EAN-13.

8. (Optional) Scan one of these bar codes to set the seventh digit:

Discard Leading Zero for UPC-A



0

Transmit Leading Zero for UPC-A



1



Note: This option applies only when you enable UPC-A/EAN-13.

9. Scan this bar code:

Exit Accumulate Mode



-/

Troubleshooting PSK and EZBuilder Applications

When you run PSK or EZBuilder applications and there is no RAM drive configured, you may see one of these messages:

```
SCREEN ERROR: 30  
Code: 9  
Hit any key To exit!
```

```
SCREEN ERROR: 31  
Code: 3  
Hit any key To exit!
```

To solve this problem, you need to set the RAM Drive Size configuration command. For details about configuring RAM Drive Size, see your user's manual.



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