PDT 3200

Product Reference Guide

PDT 3200 Product Reference Guide

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Revision A — July, 1997

Symbol Technologies, Inc. One Symbol Plaza, Holtsville N.Y. 11742

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70-31466-01
Revision A
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Contents

About This Guide

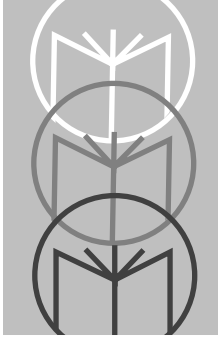
Chapter 1. Introduction

Chapter 2. Using the PDT 3200

Chapter 3. The PDT 3200 Configuration Utility

Chapter 4. Programming Parameters

Chapter 5. Bar Codes for Configuring the PDT 3200



About This Guide

Introduction

The PDT 3200 Product Reference Guide provides important information on the setup, operation and maintenance of the PDT 3200 terminal. Topics covered include programming the terminal, the configuration utility, and replacing the batteries.

This manual is made up of 5 chapters. A brief description of each of these chapters follows:

Chapter 1, *Introduction*, features an overview of the PDT 3200 terminal, its main features, and important instructions on battery use.

Chapter 2, *Using the PDT 3200*, provides some basic operation instructions, including attaching the bar code scanner, opening the PCMCIA slot and inserting/removing a PCMCIA card.

Chapter 3, *The PDT 3200 Configuration Utility*, describes the installation and use of the Configuration Utility, which is a method for changing the terminal's settings for bar code symbologies and serial communications, and to load programs and files into the terminal.

Chapter 4, *Programming Parameters*, provides information about programmable settings for the terminal.

Chapter 5, *Bar Codes for Configuring the PDT 3200*, contains the bar codes for common setup parameters for programming the terminal.

Related Publications

- *PDT 3200 Terminal Quick Reference Guide, p/n 70-31467-xx*
- *PDT 3200 Technical Reference Guide, p/n 70-31468-xx*
- *CRD 3200 Cradle Quick Reference Guide, p/n 70-31469-xx*
- *PDT 3200 Run Time Library Reference Manual, p/n 70-31577-xx*

Notational Conventions

Keystrokes are indicated with the angle brackets as follows:

ENTER	Identifies a key.
ALT+X	Identifies a simultaneous key combination.
BKSP, SHIFT, ON	Identifies a key sequence.

Escape sequences described do not contain angle brackets characters. For example:

ESC[3;4f	Indicates the sequence: escape character, left bracket, numeral 3, semicolon, numeral 4, and letter f.

Typeface conventions used include:

Italics	Indicates first time a new item is used. A definition follows the italicized terms. Italics also indicate book titles or information that must be replaced by an actual value. Italics also express menu titles.
Syntax	Indicates text entered by the user.
Screen	Indicates a text displayed on a screen or terminal.

Note: Indicates tips or special requirements.

Caution

Indicates conditions that can cause equipment damage or data loss.

Warnings indicate procedures that are potentially dangerous and should therefore be performed only by Symbol-authorized repair personnel.

Service Information

If you have a problem with your equipment, contact the Symbol Support Center. Before calling, have the model number and serial number.

Call the Support Center from a phone near the equipment so that the service person can try to talk you through your problem.

If your problem cannot be solved over the phone, you may need to return your equipment for servicing. If that is necessary, you will be given specific directions.

Note: Symbol Technologies is not responsible for any damages incurred during shipment if the approved shipping container is not used. Shipping the units improperly can possibly void the warranty. If the original shipping container was not kept, contact Symbol to have another sent to you.

Symbol Support Center

For service information, warranty information or technical assistance, call:

USA

SYMBOL SUPPORT CENTER
1-800-653-5350

Canada

Mississauga, Ontario
Canadian Headquarters
(905) 629-7226

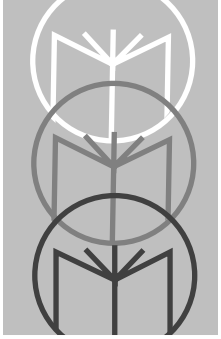
Europe

Wokingham, England
European Headquarters
0734-771-222 (Inside UK)
+44-1734-771222 (Outside UK)

Asia

Singapore
Symbol Technologies Asia, Inc.
337-6588 (Inside Singapore)
+65-337-6588 (Outside Singapore)

If you purchased your Symbol product from a Symbol Business Partner, contact that Business Partner for service.



Chapter 1 Introduction

Chapter Contents

About The PDT 3200

Symbol Technologies' PDT 3200 is a hand-held DOS computer designed for use primarily as a portable data-collection terminal. Some models have an integrated laser scanner, making the PDT 3200 a high-performance bar code reader as well. Models without the laser accept input from most industry-standard bar code readers. The PDT 3200's wireless models provide instant communication of data between the unit and a host computer or terminal.

This chapter provides an overview of the various model configurations and accessories and describes some of the PDT 3200's features.

Overview of Features

Physical Features

- 41-key keypad
- Backlit liquid crystal display (LCD)
- Integrated high-performance laser scanner (laser models only)
- Two laser triggers that double as keypad keys
- Side-mounted RF antenna (RF models only)
- User-accessible PC card type-I/II socket
- Standard RS-232 serial communications port
- Programmable speaker
- Lithium backup battery

System Features

- AMD Élan® AM386™ SC300 32-bit microprocessor
- Datalight® ROM-DOS™ 6.22 operating system
- 2 megabytes of RAM
- 1 or 2 megabytes of flash memory (depending on model), expandable to 64 megabytes with a PC ATA card
- PhoenixCARD Manager Plus PC card drivers
- Advanced power management, including a low-battery indicator

Supported Input Devices

- Hand-held 5-volt lasers
- Handheld CCDs
- Wands (visible light and infrared)
- I.D. badge scanners (visible light and infrared)

Supported Symbologies

- Code 39 (with full ASCII option)
- Code 11
- Code 128
- Interleaved 2 of 5

- Standard 2 of 5
- Matrix 2 of 5
- UPC
- EAN 128
- EAN-8/JAN-8
- EAN-13/JAN-13
- UPC/EAN/JAN extensions
- Codabar
- ISBN conversion
- MSI
- Labelcode 4/5
- Ames

Configurations

The PDT 3200 is available in several model configurations. Table 1-1 can help you identify which configuration your PDT 3200 unit has. Find the model number on the product-information label on the back of the PDT 3200, and match it with the model number in the table.

Table 1-1. PDT 3200 Configurations

Model	Memory		Laser	Wireless
	RAM	Flash		
PDT3200-S0814000	2MB	1MB	Yes	No
PDT3240-S0834099	2MB	2MB	Yes	Yes
PDT3240-S08340US	2MB	2MB	Yes	Yes

Batteries

The PDT 3200 uses three standard AA alkaline batteries or rechargeable nickel cadmium (NiCD) or nickel metal-hydride (NiMH) batteries. The NiCD and NiMH batteries are available in battery packs which makes them easy to replace in the PDT 3200.

The PDT 3200 has a built-in lithium backup battery that temporarily saves data when the other batteries lose their charge.

Low-Battery Warning

When the alkaline, NiCD, or NiMH batteries have lost most of their charge, an icon of a battery appears at the top right corner of the PDT 3200 display screen. The PDT 3200 also may be programmed to emit a beep at intervals when the battery is low. When you see the battery icon or hear the warning beeps, you should turn off the PDT 3200 and recharge or replace the batteries as soon as possible. The backup battery will retain all data in memory while the other batteries are out of the unit.

After you recharge or replace the batteries and turn the PDT 3200 back on, it returns to wherever you were in your application when you turned it off.

Replacing the Batteries

The PDT 3200's batteries (except for the lithium backup battery) are located in a compartment on the back of the unit (see Figure 1-1). To replace the batteries, complete the following steps:

1. Turn the PDT 3200 off.
2. Detach the elastic hand strap on the back of the PDT 3200 by pulling its hook out of the holder near the base.
3. The battery compartment cover has a tab on one edge. Firmly press the tab toward the top of the PDT 3200 unit with your thumb until the cover is released from the body of the unit. (A symbol on the PDT 3200 indicates the direction in which to press the tab.)
4. Pull the end of the plastic ribbon sticking out of the battery compartment toward the batteries until they pop out.

   Note: Be sure to turn the PDT 3200 off before removing the batteries. If you don't, you may lose all data in memory.

5. Lay the plastic ribbon along the bottom of the battery compartment with the end sticking out of the compartment.
6. **Alkaline Batteries** Insert the batteries in the positions indicated by the diagram inside the compartment.

   NiCD or NiMH Battery Pack Find the positive (+) and negative (-) symbols on the battery pack's label . *With the label facing you*, tilt the positive end of the pack into the upper end of the battery compartment, and then firmly press the negative end until it is fully inserted into the battery compartment.
7. Replace the battery-compartment cover by sliding it into place. (Be sure the plastic ribbon is tucked underneath the cover.)
8. Replace the hand-strap hook in its holder.

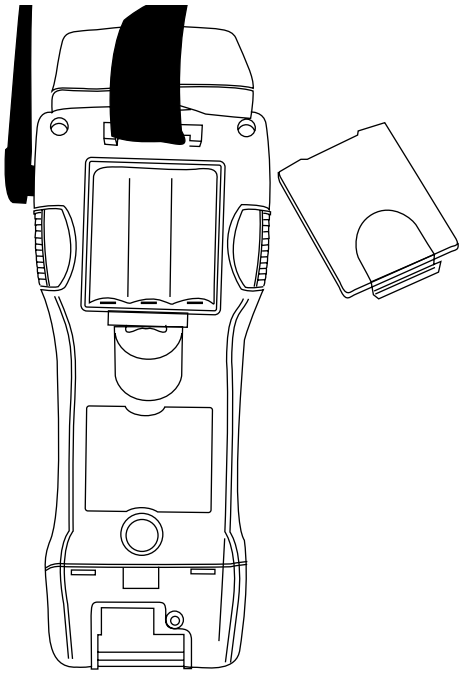


Figure 1-1. NiCD Battery Pack in PDT 3200 Battery Compartment

Auto-Off

The PDT 3200 has an advanced power-management feature that works to conserve battery life while you are not using it. When a specified amount of time has passed since the last time you pressed a key or a trigger, the PDT 3200 turns itself off. The display and the backlight turn off, and all functions are suspended. All data in memory is maintained. Press the power button or one of the triggers to turn the unit back on.

The default time-out period for the auto-off feature is 5 minutes. You can change the timeout period or turn the feature off by scanning one of the bar codes in Chapter 5.

Optional Accessories

The PDT 3200 Cradle

The PDT 3200 Cradle is a handy docking station for the PDT 3200. It has two primary uses:

- It recharges the PDT 3200's NiCD or NiMH battery pack.
- It provides a connection for serial communications between the PDT 3200 and the host computer or terminal. (A null modem cable is required for data transfer.)

See the PDT 3200 Cradle Quick Reference Guide (p/n 70-31469-xx) for complete instructions on the use of the cradle.

Portable Battery Charger

If you do not have a PDT 3200 Cradle, you can use the optional portable battery charger to recharge the PDT 3200's batteries. Rechargeable batteries that have lost all power can be fully recharged in about 2 hours.

Cables

Two serial cables are available:

- RJ-45 to DB-9
- DB-25 to DB-9/25 serial cable

Battery Packs

- Two battery packs are available:
  - NiMH
  - NiCd

Power Supplies

- Two power supplies are available:
  - 110V
  - 220V

Holster

The holster allows you to carry the PDT 3200 on your belt.

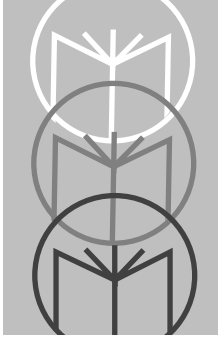
Softcase

The softcase protects the PDT 3200 during transport.

Care and Cleaning

With normal use, your PDT 3200 should require no maintenance. If it gets dirty, wipe it with a damp cloth.

- Do not immerse the PDT 3200 in liquid.
- Do not use any abrasive cleaners on the display screen.



Chapter 2 Using the PDT 3200

Chapter Contents

Introduction

Although the PDT 3200 is a DOS computer, it works differently from most computers you may be familiar with. For example, you must press a special key before pressing one of the function keys F1–F10. In addition, your PDT 3200 unit may contain one or more applications that let you collect bar code data or other information.

This chapter describes the PDT 3200's physical features and provides information about configuring the PDT 3200 and using the applications.

The Keypad

The PDT 3200 keypad is made up of 41 keys (see Figure 2-1). Used individually or in combination, these keys provide equivalents to almost all the keys found on a standard keyboard. The PDT 3200 has a few keys not found on a standard keyboard. Table 2-1 shows which standard keys are not included and which keys are unique to the PDT 3200.

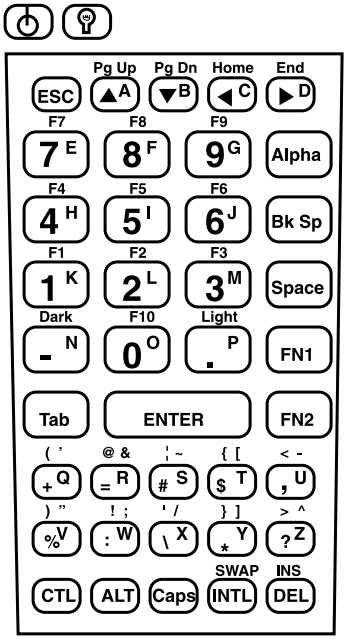


Figure 2-1. The PDT 3200 Keypad

Table 2-1. Standard Keyboard vs. PDT 3200 Keypad

Standard Keyboard Keys Not Found on PDT 3200 Keypad		**PDT 3200 Keys Not Found on Standard Keyboard**	
		Key	**Default Use**
F11	Numeric keypad keys	Power	Turns the PDT 3200 on and off
F12	Num Lock	Lamp	Turns the display backlight on and off
Left Shift	Scroll Lock	Alpha	Toggles the PDT 3200 between Alpha mode and Normal mode
Right Shift	Pause/Break	FN 1 (Function 1)	Outputs the blue symbol above the next key pressed, or activates the function key
Right Alt	Print Screen/ SysReq	FN 2 (Function 2)	Outputs the black symbol above the next key pressed
Right Ctrl		International (INTL)	Outputs an international character generated by the combination of the next
		Left laser trigger	Operates the PDT 3200 laser module or an attached bar code reader
		Right laser trigger	Same as the Alpha key; can be reprogrammed as a keypad key

The best way to learn how the PDT 3200's keypad works is to play with it. The color coding of the keys and characters should help you.

- The yellow Alpha key works with the yellow letters on the other keys.
- The blue FN 1 key works with the functions (F1–F10) and the blue characters printed above some of the keys.
- The black FN 2 key works with the black characters or operations printed above some of the keys.

For most applications, you will not need anything but the letters and numbers. You input letters by pressing the Alpha key to turn on Alpha mode and pressing the keys for the letters you want. (Use the Caps key for uppercase letters.) You input numbers and some other frequently used characters by pressing the Alpha key again (to return to Normal mode) and pressing the appropriate keys.

Input Modes

When you press a key on the PDT 3200 keypad, the result depends upon the input mode of the keypad. The input modes are described in Table 2-2. Table 2-3 uses two keys to show the results of keypresses in different input modes.

Table 2-2. Keypad Input Modes

Input Mode	Result of Keypress
Type 1—remains in effect after each keypress until manually discontinued	
Normal	Outputs the white number or symbol on the key, or performs an action (e.g., moves left)
Alpha	Outputs the yellow letter on the key (lowercase unless used with Caps mode)
Caps (can be used only with Alpha mode)	Outputs the uppercase yellow letter on the key
Type 2—affects only a single keypress or combination of keypresses	
Base	Outputs the default letter, number, or symbol for the type-1 input mode
Function 1	Outputs the blue symbol or the function above the key
Function 2	Outputs the black symbol above the key
Control	Outputs the control meaning for alphanumeric or function keys
Alternate	Outputs the alternate meaning for alphanumeric or function keys
International	Outputs a character from the international character set (see page 2-8)

You can temporarily override a type-1 mode without actually changing the mode. For example, if you are entering numbers in Normal mode and want to type a letter, hold down the Alpha key while pressing the letter key. When you release the Alpha key, the PDT 3200 will still be in Normal mode. You can use the Caps key the same way to enter an uppercase letter without changing to Caps mode.

Table 2-3. Results of Keypresses

Type-2 Input Mode	Type-1 Input Mode		
	Normal	Alpha	Caps
Base	4	h	H
Function 1	F4	F4	F4
Function 2	4	h	H
Control	4	Ctrl+H	Ctrl+H
Alternate	Alt+4	Alt+H	Alt+H
Function 1 + Control	Ctrl+F4	Ctrl+F4	Ctrl+F4
Function 1 + Alternate	Alt+F4	Alt+F4	Alt+F4

Type-2 Input Mode	Type-1 Input Mode		
	Normal	Alpha	Caps
Base	=	r	R
Function 1	@	@	@
Function 2	&	&	&
Control	=	Ctrl+R	Ctrl+R
Alternate	Alt+=	Alt+R	Alt+R
Function 2 + Control	=	<None>	<None>
Function 2 + Alternate	Alt+=	<None>	<None>

Cursors

The shape of the PDT 3200's cursor in the display window is a key to what input mode the PDT 3200 is in. Table 2-4 identifies the various cursors.

Table 2-4. Cursors

Cursor	Input Mode
_	Normal
a	Alpha
A	Caps
↖	Function 1
↗	Function 2
c	Control
A	Alternate
I	International
P	Program

International Characters

The international character set contains letters and symbols commonly used in Western European languages. You can enter international characters by using the following key sequence:

INTL *accent letter*

where *accent* is a character from the first column of table 2-5 and *letter* is a character from the same row of the second column.

Table 2-5. Key Combinations for International Characters

Accent	Letter	International Characters
' (apostrophe)	a, e, i, o, u, E	á, é, í, ó, ú, É
`	a, e, i, o, u	à, è, ì, ò, ù
^	a, e, i, o, u	â, ê, î, ô, û
:	a, e, i, o, u, y, A, O, U	ä, ë, ï, ö, ü, ÿ, Ä, Ö, Ü

Accent	Letter	International Characters
@	a, A	å, Å
, (comma)	c, C	ç, Ç
~	n, N	ñ, Ñ
s	s	ß
a	e	æ
A	E	Æ
?	?	¿
!	!	¡
FN 1 + $	<None>	£
FN 2 + $	<None>	¥
c, C	<None>	ç, Ç
n, N	<None>	ñ, Ñ

When you press the INTL key, the next keypress is not dependent on the current mode of the PDT 3200. For example, you do not need to press the FN 2 key for the "~" accent, nor do you have to be in Alpha mode to use the letter *a*. However, if the letter used with the accent can be either uppercase or lowercase, you do need to use Alpha mode, with Caps mode off for lowercase or on for uppercase. For example, to create the *á* character you can enter

INTL ' a

in any mode, because only the lowercase *a* is available with an acute accent. But to create the *é* character, you must be in Alpha mode but *not* in Caps mode when you enter

INTL ' e

because the uppercase character *É* is also available. If you are not in Alpha mode, PDT 3200 will output the nonalphabetic character on the last key pressed instead of the desired international character (in this example, *7*).

If you make a mistake while entering an international character, press the INTL key again before completing the key sequence to cancel it.

The Viewport

The PDT 3200's viewport (display window) is a backlit liquid crystal display of 21 characters in 8 rows. If you enter more than 21 characters without a line break, the text in the viewport will scroll to the left to make the additional characters visible.

To view long lines of text, you can move the viewport display to the left or right by half screens. Hold down the FN 1 key, and press the left or right cursor ke or to move the display to the left or right. When you release the FN 1 key, the display will snap back to make the current cursor position visible.

You can also move the viewport up or down a half screen at a time. Hold down the FN 1 key, and press the up or down cursor key (or). When you release the FN 1 key, the display will snap back to make the current cursor position visible.

You can also press and release the FN 1 key before pressing any cursor keys. You can then move the viewport several times in any direction. When finished, press and release the FN 1 key again to return to the current cursor position.

Adjusting the Contrast

When working in dim or bright light, you can adjust the contrast between the text and the background in the viewport. Press the FN 2 key. Then, with the ↗ cursor displayed, press the key with the label "Dark" above it to make the display background darker, or press the key with the label "Light" above it to make the background lighter. To see the PDT 3200's viewport even better in dim light, use the backlight (see below).

Using the Backlight

When using the PDT 3200 in dim light, you can turn on the backlight to see the viewport better. Press the lamp key (the one with the light bulb icon) below the viewport to turn the backlight on or off. To save battery power, the backlight will shut off automatically if you do not press a key within a certain amount of time. The backlight will turn back on when you press any keypad key.

The default time-out period for the backlight shut-off feature is 15 seconds. You can change the timeout period or turn the feature off by scanning one of the bar codes in Chapter 5.

Moving the Cursor

Four keys on the PDT 3200 keypad allow you to move the cursor around the viewport and to scroll the text up or down. These keys act like the corresponding keys on a standard keyboard. Table 2-6 describes the actions of the four cursor keys used alone and with the FN 2 key.

Table 2-6. Cursor Keys

Key	Action	
	Key	**FN 2 + Key**
	Moves the cursor up one line. If the cursor is at the top line in the viewport and there is data above that line, the text scrolls down so that the next line up becomes visible.	Moves the cursor up one page (as defined by the application).
	Moves the cursor down one line. If the cursor is at the last line in the viewport and there is data below that line, the text scrolls up so that the next line down becomes visible.	Moves the cursor down one page (as defined by the application).
	Moves the cursor one character to the left.	Moves the cursor to the beginning of the line.
	Moves the cursor one character to the right.	Moves the cursor to the end of the line.

The PDT 3200 Laser

Some models of the PDT 3200 come with a built-in high-performance laser scanner. To use this scanner, just point the scanning window at a bar code and press the trigger that activates the laser. A red light-emitting diode (LED) on the scanner module indicates when the PDT 3200 is scanning, and a green LED indicates when a scan is successful.

The Laser Triggers

Normally, the left trigger (as seen from the front) operates the PDT 3200 laser or another bar code reader attached to the laser, and the right trigger toggles the PDT 3200 between Alpha mode and Normal mode. You can swap the operation of these triggers or use them as "aliases" for keypad keys.

> **Note:** The ability to create aliases may be disabled on your PDT 3200. See your systems administrator for information.

To swap the trigger operations, press the FN 2 key, and then press the SWAP (INTL) key (see Figure 2-2). You can then use the right trigger as the laser trigger and the left trigger to toggle Alpha mode on and off.

To use a trigger as an alias for a keypad key, first hold down the FN 1 and FN 2 keys and press the SWAP (INTL) key. The Program cursor should appear in the viewport (see Table 2-4). Next, press the trigger that you want to change, and then press the keypad key that you want to assign to the trigger.

For example, to turn the left trigger into an alias for the ENTER key, hold down the FN 1 and FN 2 keys and press the SWAP key to enter Program mode. Then press and release the left trigger, and press the ENTER key. The left trigger now works as a second ENTER key.

To change a reassigned trigger back to a laser trigger, put the PDT 3200 into Program mode and press the trigger twice. You can then use the trigger to operate the PDT 3200 laser or an attached bar code reader.

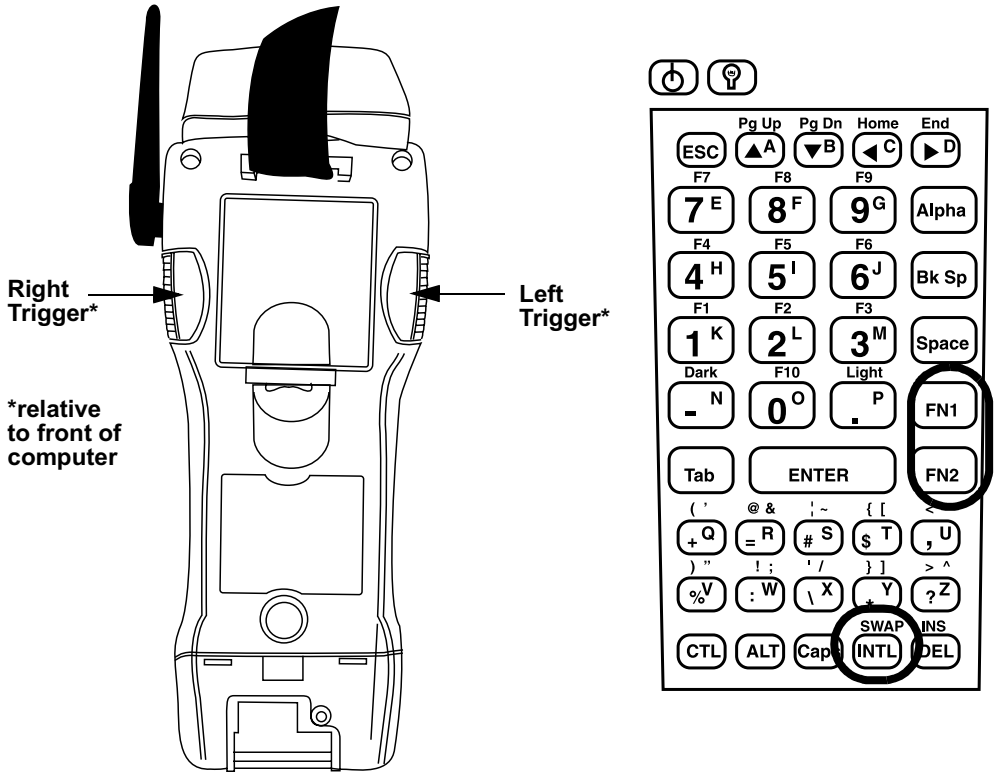


Figure 2-2. Triggers and Trigger-Programming Keys

Changing the Laser Module's Orientation

Normally, the laser window faces the left side of the PDT 3200 for easy right-handed scanning. If you prefer to hold the PDT 3200 in your left hand while scanning, you can turn the laser module around.

To rotate the laser module, complete the following steps:

1. Unscrew the screw that secures the module to the main part of the PDT 3200. The screw will come loose but will not come out of the laser module. Do not try to force it out.

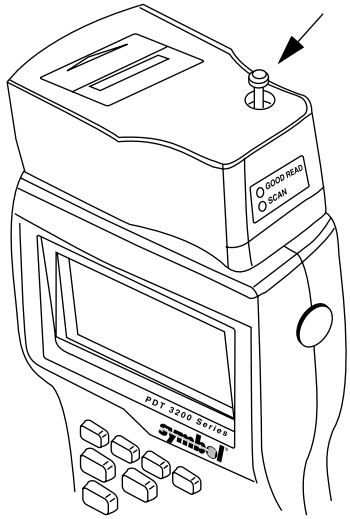


Figure 2-3. Unscrewing Laser Module

2. Gently lift the laser module away from the top of the main part of the PDT 3200. The module will not completely separate from the rest of the PDT 3200. Do not try to force the units apart.

3. Swivel the module around until the laser window faces the opposite direction. The module can rotate in only one direction. Do not try to force it the other way.

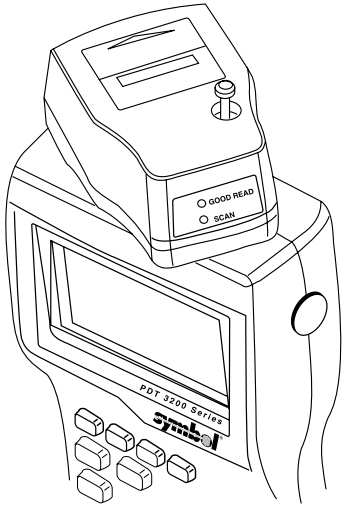


Figure 2-4. Rotating the Laser Module

4. Press the laser module back into the main part of the PDT 3200, and tighten the screw.

   Note: After changing the laser module's orientation, you may want to swap the operations of the triggers. See page 2-12 for information.

Attaching a Bar Code Reader

If your PDT 3200 does not have an integrated laser scanner, you can attach a bar code reader to the connector at the top. The reader's cable must have a standard nine-pin squeeze connector at the end.

To attach the bar code reader, match the orientation of the holes on the squeeze connector with the pins on the PDT 3200's connector. Then press the squeeze connector onto the PDT 3200 until it is firmly in place.

Figure 2-5. Attaching a Tethered Bar Code Reader

To disconnect the bar code reader from the PDT 3200, press the sides of the squeeze connector and pull it away from the PDT 3200's connector.

Using PC Cards

The PDT 3200 has a slot for plugging in PC cards, and each unit is factory-equipped with PhoenixCARD Manager Plus PC card drivers. PC cards provide such features as network connectivity, modem connectivity, and wireless capability. Their primary purpose in the PDT 3200 is to provide additional memory storage by functioning as a disk drive. (See page 2-22 for information about the PDT 3200's drives.)

Figure 2-6. Typical PCMCIA Card

Opening the PC Card Slot Cover

The PC card slot is located near the bottom on the back of the PDT 3200 (see Figure 2-7). Detach the elastic hand strap on the back of the PDT 3200 by pulling its hook out of the holder near the base. The slot is protected by a cover. If the slot cover is secured by a screw, loosen the screw. Then, while pressing the round button above the slot cover, slide the cover out and away from the PDT 3200.

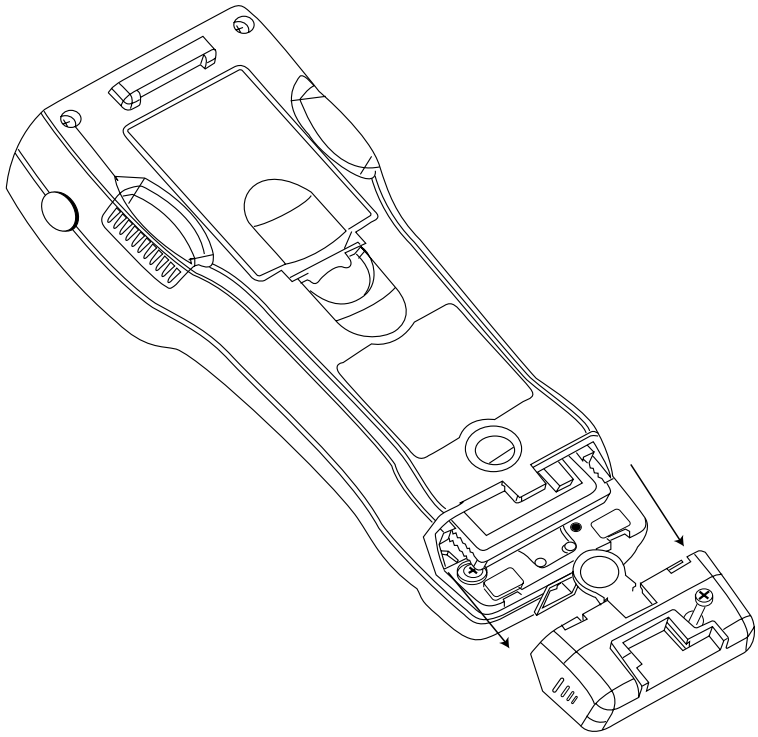


Figure 2-7. Removing the PC Card Slot Cover

Inserting a PC Card

All PC cards have two rows of small sockets on one end (see Figure 2-6). The cards also have face-up and face-down sides. The card manufacturer's label is usually on the face-up side.

> **Note:** Turn the PDT 3200 unit off before inserting or removing a PC card.

With the PDT 3200 face down and the PC card face up, insert the end of the card with the sockets into the card slot (see Figure 2-8). There are two tracks inside the slot to help you guide the card. Push the card firmly into the slot until the ejector tab slides out. Then replace the PC card slot cover and secure screw, if applicable.

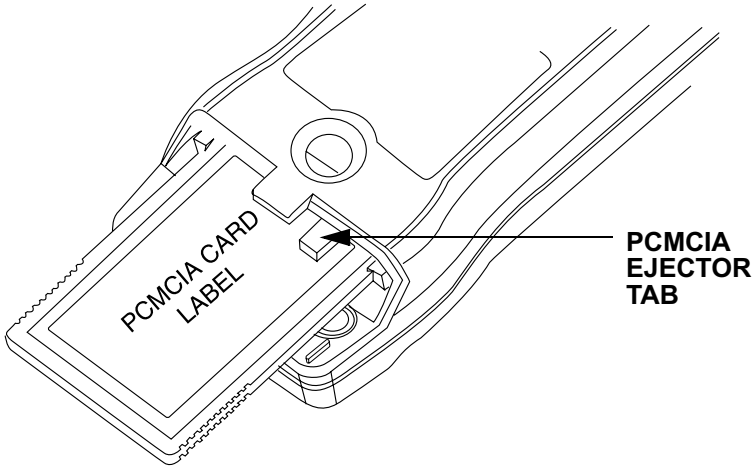


Figure 2-8. Inserting a PCMCIA Card

The PC card slot on the PDT 3200 is designed so that you cannot insert a card upside down or backward. If you cannot push the card all the way into the slot easily, you probably do not have the card positioned properly. Make sure you are putting the end with the holes into the slot first. Then flip the card upside down and try to insert it again.

Card Recognition and Configuration

Once you have inserted the card in the slot, turn the PDT 3200 on. The PDT 3200 will try to recognize and configure the card.

If the PDT 3200 responds with one beep when you turn it on, the PhoenixCARD Manager Plus drivers successfully recognized and configured the card. If the PDT 3200 does not beep, the drivers might not have successfully configured the card. The Phoenix drivers may not be loaded in the PDT 3200, or the beeper may be disabled. Check with your systems administrator.

In some cases, drivers provided by a specific card's vendor are responsible for configuring the card. If you are using one of these cards, you might receive no audio signals for card configuration. See the configuration instructions that came with the card.

Removing a PC Card

Inside the PC card slot is a tab that ejects the installed card (see Figure 2-8). Push the end of the ejector tab into the PDT 3200. As you do so, the PC card should slide part way out of the slot. Hold the card by the edges and pull it the rest of the way out.

The Serial Port

The PDT 3200 has a port for serial communications with a PC. The port is located at the base of the PDT 3200 unit (see Figure 2-9). Designated as COM1, it is an RJ 10-pin connector providing a standard RS-232 connection. With a serial cable connected to it, the port allows communications with a host computer or any serial device, such as a printer or modem. The serial port also provides a connection inside the cradle of the dock unit for battery recharging.

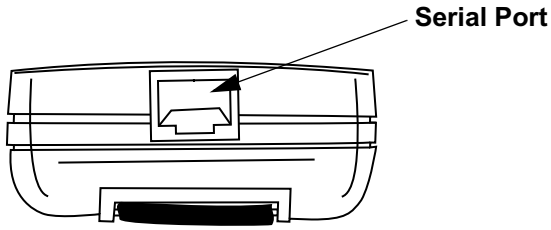


Figure 2-9. Serial Port

The Disk Drives

The PDT 3200 contains four logical disk drives that provide storage for system files, applications, and data.

Drive A

Drive A is a read-only drive. Its contents cannot be changed. The drive contains the following files:

- CONFIG.SYS (used in starting the system)
- AUTOEXEC.BAT (used in starting the system)
- COMMAND.COM (shell program)
- CONFIG.SAF (used for safe boots)

Drive B

Drive is a read-only drive. It is used to store system utilities and to initialize the boot process. Its contents cannot be changed. The drive contains the following files:

- CONFIG.SYS (contains commands for the boot sequence)
- AUTOEXEC.BAT (contains commands for the startup sequence)
- CONFIG.SAF (contains commands for the safe-boot sequence)
- FLASHDSK.SYS (flash disk device driver)
- VDISK.SYS (RAM disk device driver)
- FORMAT.COM (disk reformatting utility)
- ORGANIZE.COM (utility for reorganizing flash disk data)
- LOCK.COM (utility for locking and unlocking the resident flash disk)
- DECODE.SYS (bar code decoding device driver)
- CFGDEV.SYS (device driver for managing system configuration parameters)

Drive C

Drive C is a 700-kilobyte flash disk drive with full read and write access. This drive contains DOS command files, PC card drivers, PDT 3200 utilities, and executable files and associated files for applications. It may also contain additional CONFIG.SYS and AUTOEXEC.BAT files to configure your PDT 3200 to run the applications.

Drive D

Drive D is a RAM disk drive. It is either a 1MB or a 3MB drive, depending on the total memory of your PDT 3200. The RAM disk is used primarily for data storage. Programs that need to be loaded into memory and then removed from memory quickly can also be placed here. The drive can also be used for scratch disk space or temporary files.

Additional Drives

Drive E exists only if your PDT 3200 has been configured to use PC ATA flash cards. The PC card looks like a hard disk drive to the operating system. You can use drive E for safe and permanent storage of data.

Alternately, drive E could be a peer-to-peer or client-server network drive that is accessed through a wireless access point or Ethernet network card link.

Your PDT 3200 may have other additional logical drives. These might be RAM drives, ATA flash cards, or network drives accessed via wireless access points.

Note: As with any RAM drive, data on drive D can be lost if the PDT 3200 has a power failure caused by low batteries or a system reset. For truly secure data collection, store your data on drive C or on an ATA flash card.

Configuring the PDT 3200

If your PDT 3200 is not already configured for use when you get it, you can use the PDT 3200 Configuration Utility to install applications and set options for bar code scanning. The PDT 3200 Configuration Utility operates under Windows 3.1x and Windows 95. For instructions on using the utility, see Chapter 3.

You can also use bar codes to change settings in your PDT 3200. Chapter 5 has bar codes for many common settings. If you need to make other settings, consult your system administrator.

Using the Serial Transfer Utility (XFER)

The XFER utility gives you the ability to transfer files to and from a PC through the PDT 3200's serial port. When you use the PDT 3200 Configuration Utility to transfer files (see Chapter 3), the configuration utility runs XFER automatically for you. If you are not using the configuration utility, using XFER involves entering commands at the DOS command line on both the PDT 3200 and the PC.

The XFER utility is loaded into the PDT 3200 at the factory and placed on drive B. If your PATH statement has not been changed, you can run XFER from any drive.

Before you can run the XFER utility on your PC, you must install the PDT 3200 Configuration Utility onto your hard drive. By default, XFER is placed in the \Symbol\cfgutil\program directory.

The command line syntax for XFER is as follows:

```
XFER [/option1 [/option2] ...] filename
```

You can specify options before or after the filename. The options are listed and described in table 2-7. "Default" indicates whether the option is used (on) or ignored (off) if you do not include it in the command line. For options that have two or more possible values, the default setting is given.

Table 2-7. XFER Options

Option	What It Does	Default
/1 or /2	Specifies the communication port to use: /1=COM1 /2=COM2	COM1
/a or /A	Receives data and appends it to the specified file. If you do not use this option, the file will be overwritten. This option is available only when used with the /p option.	Off
/b# or /B#	Specifies the baud rate. Replace the # symbol with the desired baud rate. Acceptable settings: 2400 4800 9600 19200 38400 57600 115200	19200

Option	What It Does	Default
/d# or /D#	If used with the /p option, this option specifies the receive timeout, in seconds. Replace the# symbol with the desired number of seconds for the timeout.	60
	If used with the /s option, this option specifies the delay between packets, in 55-millisecond intervals. Replace the # symbol with the desired number of delay intervals.	10 (550ms)
	The range of acceptable values for# is 0–65,535. If neither /p nor /s is specified, this option is ignored.	
/h or /H	Displays a help file for the XFER command.	Off
/o or /O	Overwrites the specified file without prompting. If this option is not used and the filename exists, the following message and prompt will be displayed: "The file exists. Overwrite? (Y/N)"	Off
/p or /P	Uses Symbol ACK/NAK protocol for the transfer.	Off
/q or /Q	Runs the transfer "quietly." If you use this option, only the filename and a "Transmitting..." or "Receiving..." message is displayed. If you do not use this option, additional information will be displayed.	Off
/r or /R	Receives the specified file.	Off
/s or /S	Performs an ASCII dump. This can be specified in transmit mode (/t) only.	Off
/t or /T	Transmits the specified file.	On
/x or /X	Uses Xmodem protocol for the transfer.	On

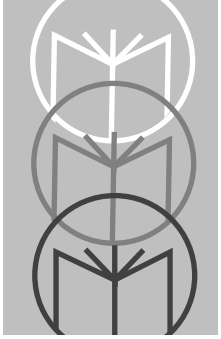
Creating Applications

Symbol's Universal Program Generator (UPG) gives you the ability to build powerful portable data-collection applications quickly and easily with integrated communications capabilities. Developing applications with UPG allows you to use both the Xmodem and Zmodem protocols for your communications needs.

UPG includes the following transfer utilities:

- XFER
- UPGXFER
- XFERSMBL

For more information on UPG, contact your Symbol representative.



Chapter 3 The PDT 3200 Configuration Utility

Chapter Contents

Introduction

The PDT 3200 Configuration Utility provides a simple way to change the PDT 3200's settings for bar code symbologies and serial communications and to load programs and files into the PDT 3200. The utility runs under Windows 3.1x and Windows 95. This chapter describes how to install the utility and use it to configure your PDT 3200.

Installing and Starting the Utility on Your PC

To install the configuration utility, insert the disk labeled "PDT 3200 Configuration Utility" into your computer's floppy drive. Then complete the following steps:

1. In Windows 3.1 or Windows 95, run the **setup.exe** file in drive A.
2. In the Introduction window, select **Next** to move on.
3. Select a program group in which to place the PDT 3200 Configuration Utility icons.
4. Next, specify the directory in which to place the PDT 3200 Configuration Utility files.
5. When the installation is completed, select **Finish** in the final window.

To start the PDT 3200 Configuration Utility, double-click on the PDT 3200 icon in the program group.

The first screen that appears is the Main Menu.

The Main Menu

This menu gives you access to all the configuration settings for the PDT 3200.

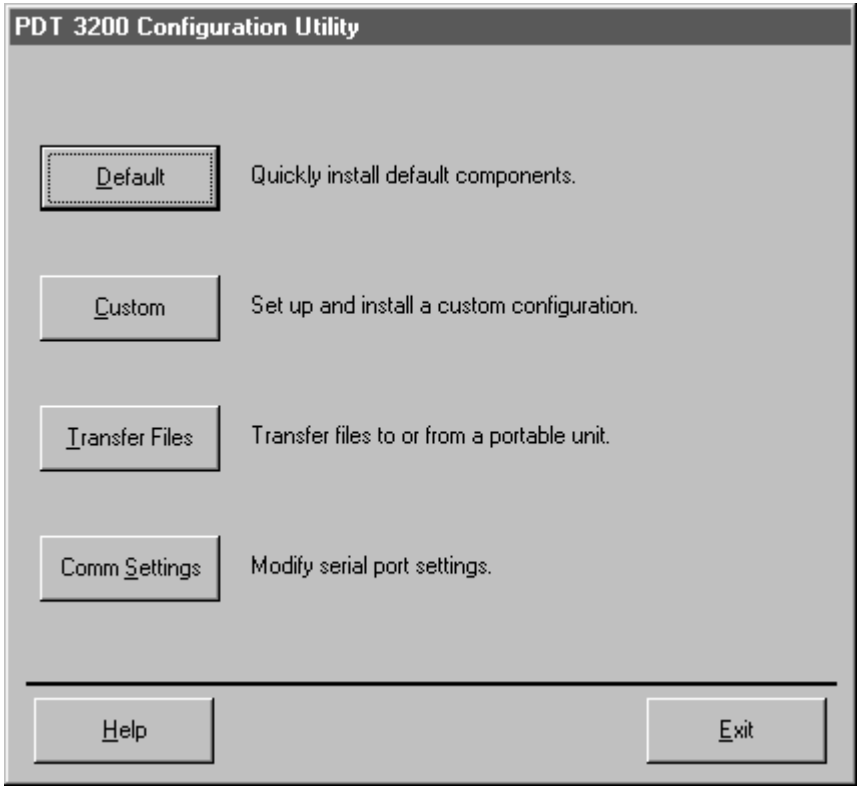


Figure 3-1. The PDT 3200 Configuration Utility Main Menu

Default

Select this option to load the original factory configuration into your PDT 3200 unit. The installation utility prepares files to be transferred to the PDT 3200 and prompts you to begin the transfer. Make sure your PDT 3200 unit is properly connected to the serial port specified in the Comm Settings dialog box (see page 3-28). Then, when the prompt window appears on your computer, run the **LD.BAT** file on the PDT 3200, and select **OK** in the prompt window on the computer.

Custom

Select this option to select or modify configuration files or program files to be loaded into your PDT 3200 unit. See the next section for information on the Custom Configuration menu.

Transfer Files

Select this option to transfer data files between the PDT 3200 and the host computer. See pages 3-23–3-27 for information on the File Transfer window.

Comm Settings

Select this option to modify settings for your computer's serial port. See page 3-28 for information on the Comm Settings dialog box.

The Custom Configuration Menu

When you select **Custom** from the Main Menu, an Open dialog box appears. Use this dialog box to select a configuration file from the Configs folder. The configuration file contains the information that will be presented when you select the File Configuration button on the Custom Configuration menu.

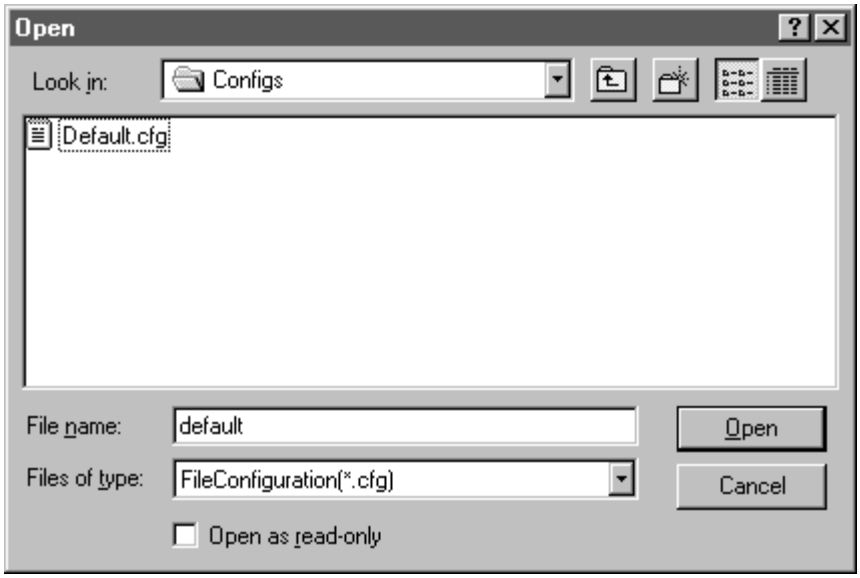


Figure 3-2. The Open Dialog Box for Selecting a Configuration File

When the configuration file is finished loading, a second Open dialog box appears. Use this dialog box to select a program-settings file from the Progsets folder. The program-settings file contains the information that will be presented when you select the Program Settings button on the Custom Configuration menu. After the program-settings file is loaded, the Custom Configuration menu appears.

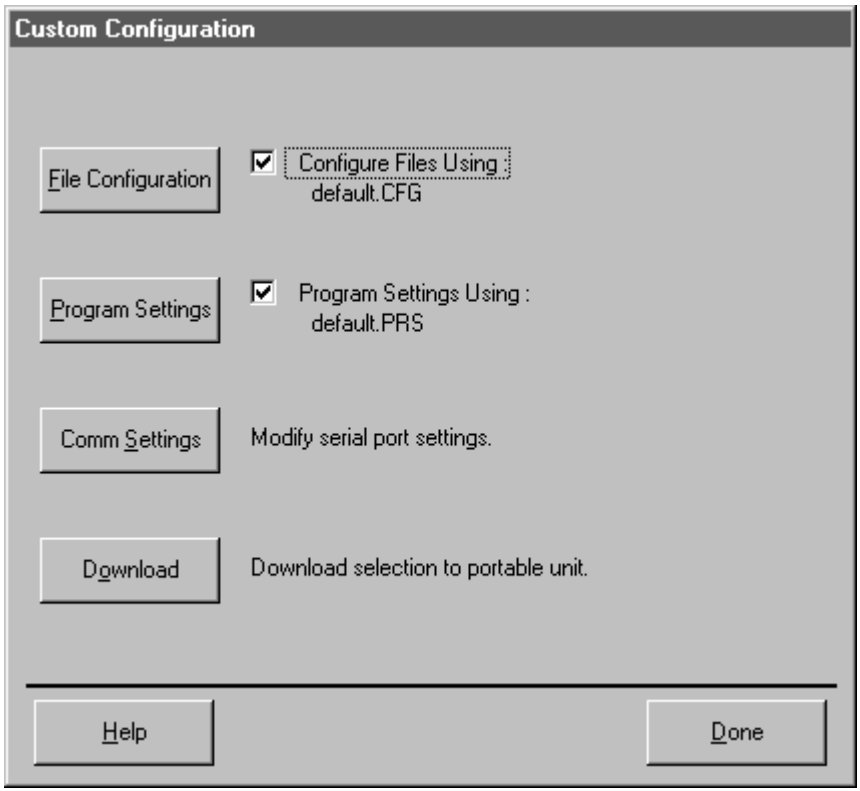


Figure 3-3. Custom Configuration Menu

File Configuration

Select this option to choose application files to be loaded into the PDT 3200. See pages 3-10–3-18 for information about the File Configuration windows.

Configure Files Using

This field shows the configuration file that will be used to specify the files that will be loaded into the PDT 3200. If you do not want to load any files, turn the switch off.

Program Settings

Select this option to view or change settings for bar code symbologies and other programmable PDT 3200 options. See pages 3-19–3-22 for information about the Program Settings windows.

Program Settings Using

This field shows the program-settings file that will be used. If you do not want to load any program settings, turn the switch off.

Comm Settings

Select this option to view or change serial communications settings for the PDT 3200. See page 3-28 for information about the Comm Settings dialog box.

Download

When you finish customizing the PDT 3200 configuration, select this option to load the custom configuration into your PDT 3200. When you select it, the installation utility prepares files to be transferred to the PDT 3200 and prompts you to begin the transfer. Make sure your PDT 3200 unit is properly connected to the serial port specified in the Comm Settings dialog box (see page 3-28). Then, when the prompt window appears on your computer, run the **LD.BAT** file on the PDT 3200, and select **OK** in the prompt window.

The File Configuration Windows

When you select **File Configuration** from the Custom Configuration Menu, the first of three File Configuration windows appears. Use these windows to choose application files to be loaded into the PDT 3200.

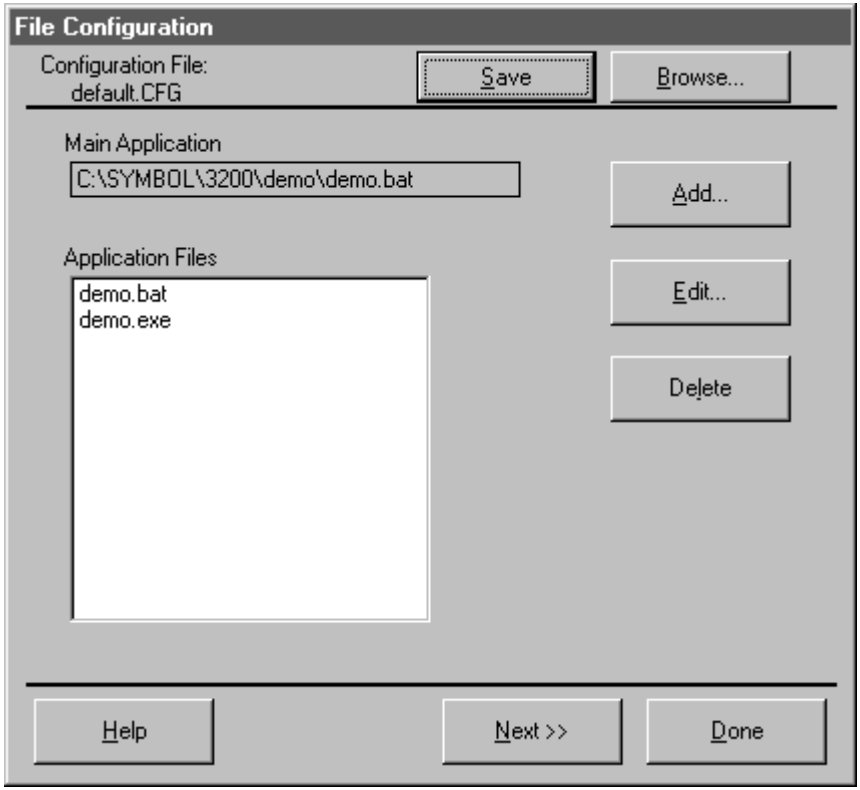


Figure 3-4. The First File Configuration Window

Configuration File

This field shows the configuration file used to specify the files that will be loaded into the PDT 3200.

Browse

Select **Browse** to use a different configuration file. An Open dialog box will appear. Use the dialog box to choose a configuration file from the Configs folder.

Main Application

This field identifies the default application that will run on PDT 3200 after you complete the installation.

Application Files

This field lists the files associated with the main application.

Add

Select this option to include other files to be installed on your PDT 3200 unit. The File Selection dialog box opens.

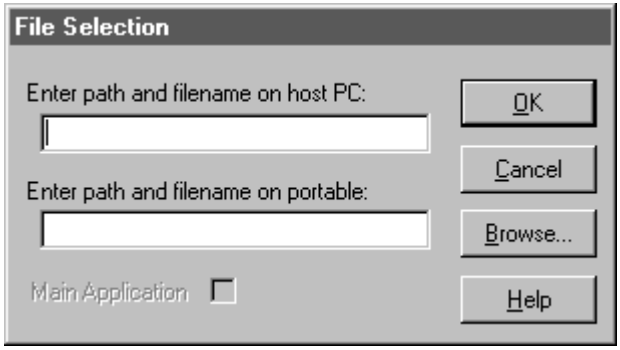


Figure 3-5. File Selection Dialog Box for Adding an Application File

Enter Path and Filename on Host PC

Use this field to specify the source file you want to transfer to the PDT 3200.

Enter Path and Filename on PDT 3200

Use this field to specify the location and name you want the transferred file to have on the PDT 3200. The name can be the same as the source file or you can give the file a new name.

Main Application

Turn this switch on if you want the specified file to be the main application on the PDT 3200.

> **Note:** Only one file can be selected as the main application. To select another file as the main application, you must first highlight the current one in the Application Files list in the File Configuration window, select **Edit**, and turn off the Main Application switch for that file.

OK

Select **OK** to return to the File Configuration window. The specified source file will appear in the Application Files list.

Cancel

Select **Cancel** to return to the File Configuration window without adding a file to the Application Files list.

Browse

Select **Browse** to view the files on your computer. An Open dialog box will appear. Use the dialog box to choose a source file to be included in the Custom configuration.

Edit

Select a file in the Application Files list and then select **Edit** to change the source path or destination path for the file. The Edit File Properties dialog box opens.

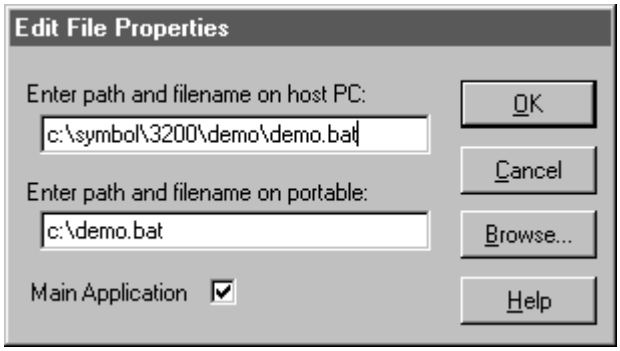


Figure 3-6. The Edit File Properties Dialog Box for an Application File

For information on using this dialog box, see "Add" on page 3-11.

Delete

To delete a file from the Application Files list, select the file in the list and then select **Delete**.

Next

Select **Next** to view or change additional file-configuration options for the custom installation.

Done

Select **Done** if you are finished setting file-configuration options for the custom installation.

The second File Configuration window appears if you select **Next** in the first window.

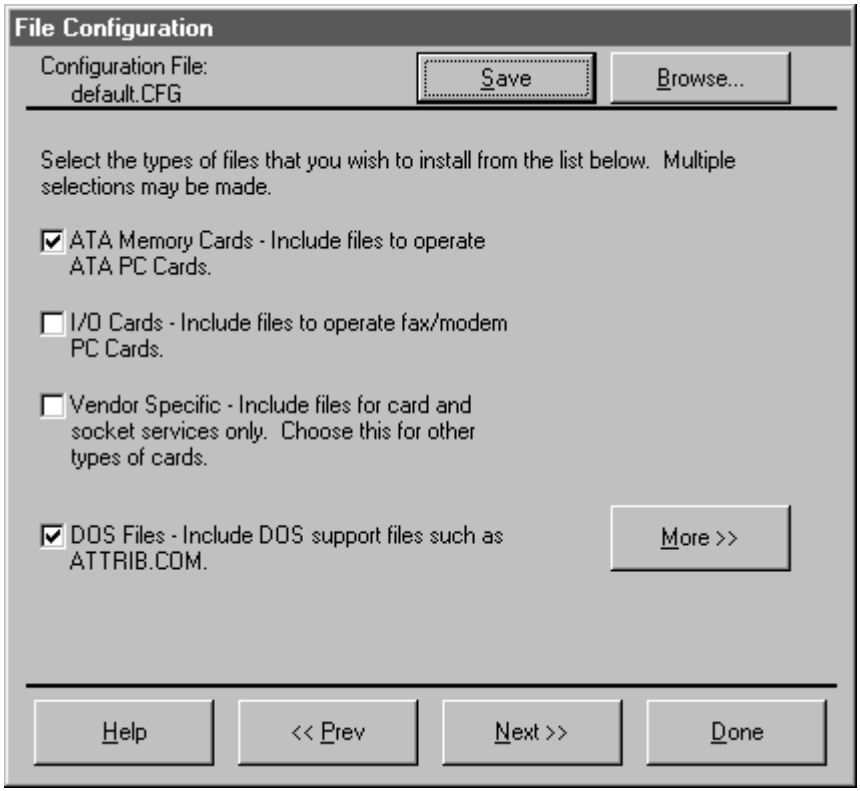


Figure 3-7. The Second File Configuration Window

Configuration File

This field shows the configuration file used to specify the files that will be loaded into the PDT 3200.

Browse

Select **Browse** to use a different configuration file. An Open dialog box will appear. Use the dialog box to choose a configuration file from the Configs folder.

ATA Memory Cards

Turn this switch on to transfer drivers for ATA memory cards to the PDT 3200.

I/O Cards

Turn this switch on to transfer drivers for fax/modem cards to the PDT 3200.

DOS Files

Turn this switch on to transfer files for DOS commands and utilities to the PDT 3200.

More

Select **More** to add or remove DOS files from the custom installation. The Select DOS Files dialog box appears.

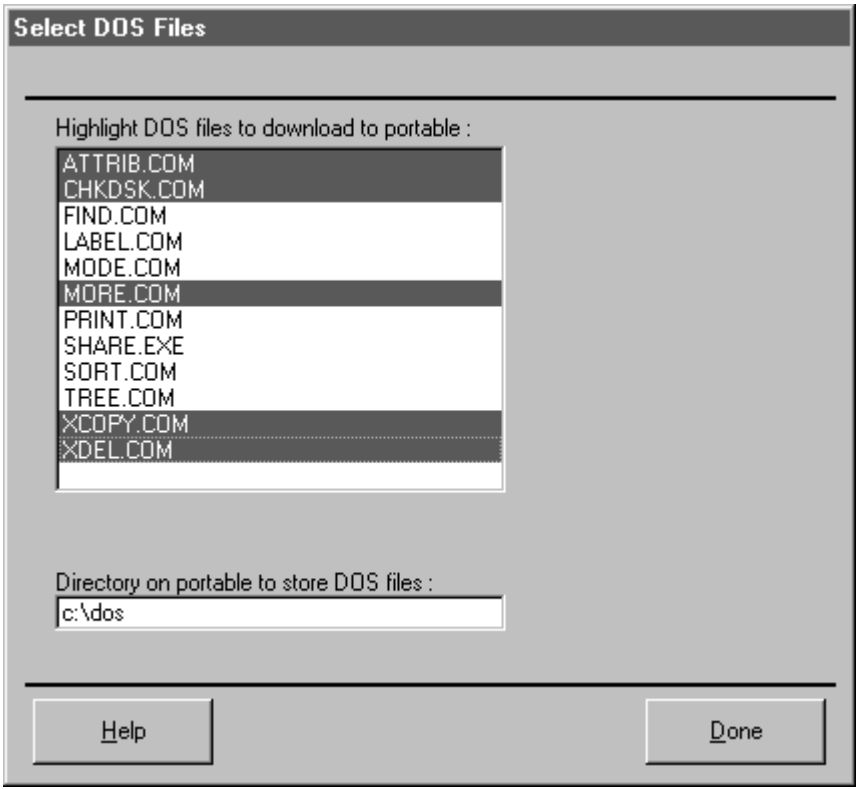


Figure 3-8. The Select DOS Files Dialog Box

DOS Files

This field lists DOS files that are available. The files in this list will not be included in the custom installation.

Files to Include

This field lists DOS files that will be included in the custom installation.

Directory on PDT 3200 to store DOS files

Use this field to specify where the DOS files should be placed in the PDT 3200 unit.

Done

Select **Done** to return to the File Configuration window.

Prev

Select **Prev** to return to the previous file-configuration window.

Next

Select **Next** to move on to the next file-configuration window.

Done

Select **Done** if you are finished setting file-configuration options for the custom installation.

Help

The third File Configuration window appears if you select **Next** in the second window.

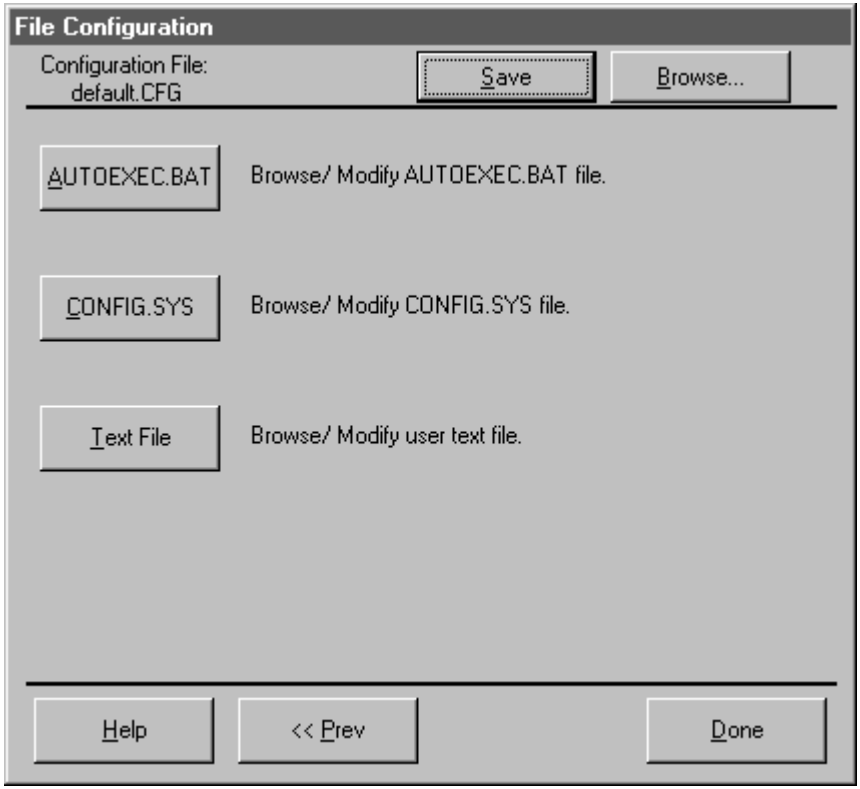


Figure 3-9. The Third File Configuration Window

Configuration File

This field shows the configuration file used to specify the files that will be loaded into the PDT 3200.

Save

Select **Save** to Save the configuration file displayed on the screen.

Browse

Select **Browse** to use a different configuration file. An Open dialog box will appear. Use the dialog box to choose a configuration file from the Configs folder.

AUTOEXEC.BAT

Select this option to insert new commands into the AUTOEXEC.BAT file that will be transferred to the PDT 3200.

CONFIG.SYS

Select this option to insert new commands into the CONFIG.SYS file that will be transferred to the PDT 3200.

Text File

Select this option to view or modify any text file that will be transferred to the PDT 3200.

Prev

Select **Prev** to return to the previous file-configuration window.

Done

Select **Done** if you are finished setting file-configuration options for the custom installation.

Help

Select **Help** to view an online help screen which explains each option.

The Program Settings Windows

When you select **Program Settings** from the Custom Configuration Menu, the first of five Program Settings windows appears. Use these windows to view or change settings for bar code symbologies and other programmable options. The first four windows are similar. The second one is shown below.

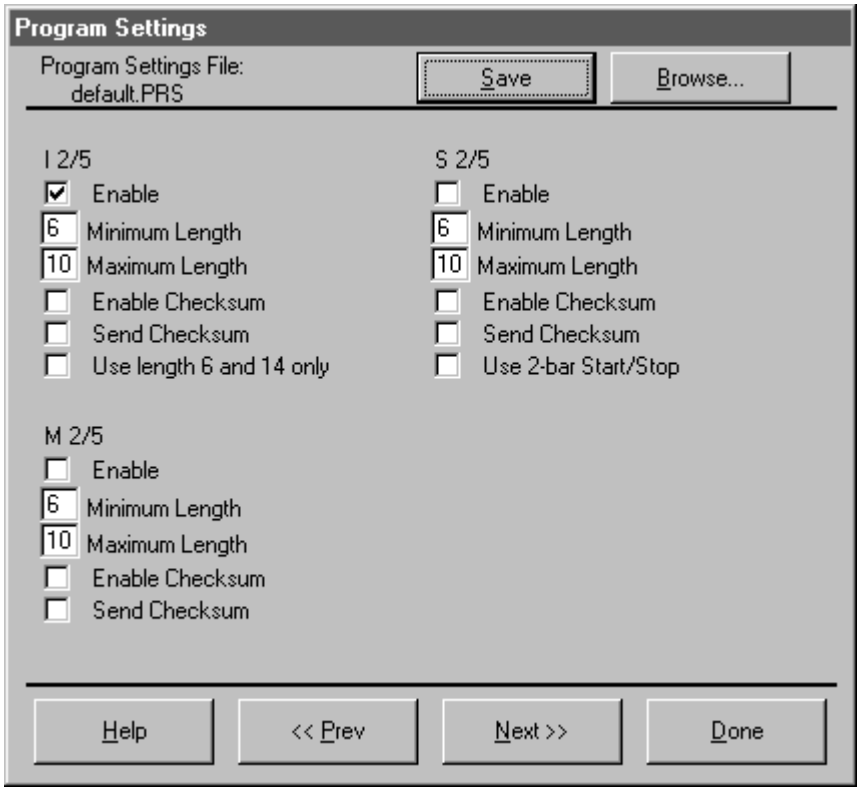


Figure 3-10. The Second Program Settings Window

Program Settings File

This field shows the program-settings file that will be loaded into the PDT 3200.

Save

Select Save to save the program-settings file displayed on the screen.

Browse

Select **Browse** to use a different program-settings file. An Open dialog box will appear. Use the dialog box to choose a program-settings file from the Progsets folder.

On/Off Switches

The smaller white boxes are on/off switches. Click in the box to toggle a switch.

Input Fields

Enter specific settings for parameters in the larger white boxes. (See chapter 4 for a table of parameters and settings.)

Help

Select **Help** to view an on-line help screen which explains each option listed on the screen.

Prev

Select **Prev** to return to the previous program-settings window.

Next

Select **Next** to move on to the next program-settings window.

Done

Select **Done** if you are finished making program settings for the custom installation.

The fifth Program Settings window appears if you select **Next** in the fourth window.

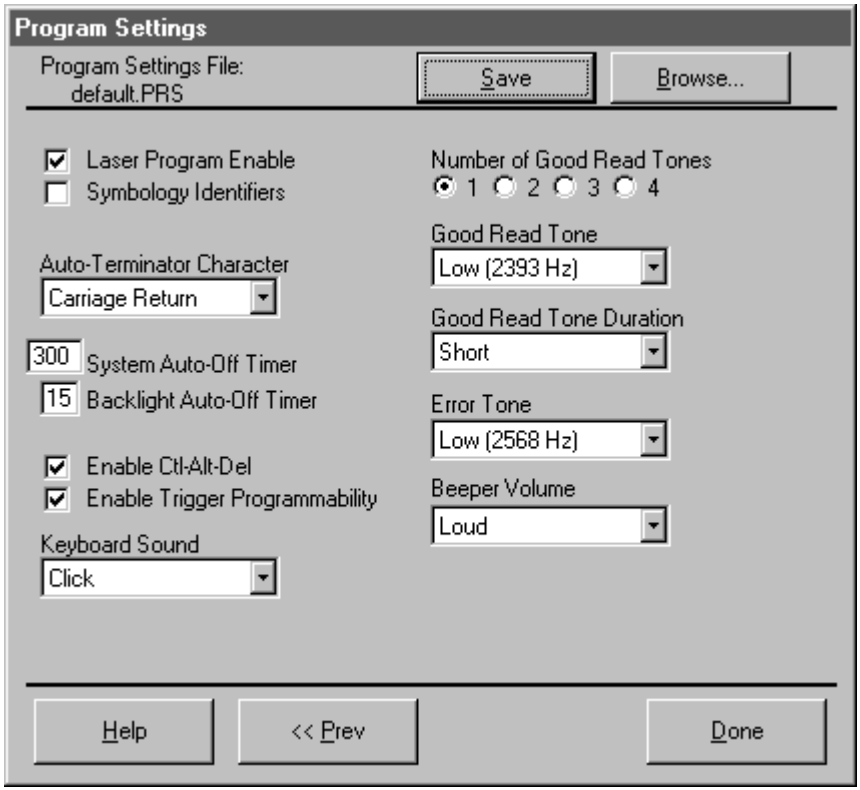


Figure 3-11. The Last Program Settings Window

Program Settings File

This field shows the program-settings file that will be loaded into the PDT 3200.

Browse

Select **Browse** to use a different program-settings file. An Open dialog box will appear. Use the dialog box to choose a program-settings file from the Progsets folder.

On/Off Switches

The smallest white boxes are on/off switches. Click in the box to toggle a switch.

Input Fields

Enter specific settings for parameters in the larger white boxes. (See chapter 4 for a table of parameters and settings.)

Drop-Down Lists

Click on the list to view the options, and click on the option you want to select.

Radio Buttons

Select the setting you want by clicking on it.

Help

Select **Help** to view an on-line help screen which explains each option listed on the screen.

Prev

Select **Prev** to return to the previous program-settings window.

Done

Select **Done** if you are finished making program settings for the custom installation.

The File Transfer Window

When you select **Transfer Files** from the Main Menu, the File Transfer window appears. Use this window to select data files for transfer between the PDT 3200 and your computer.

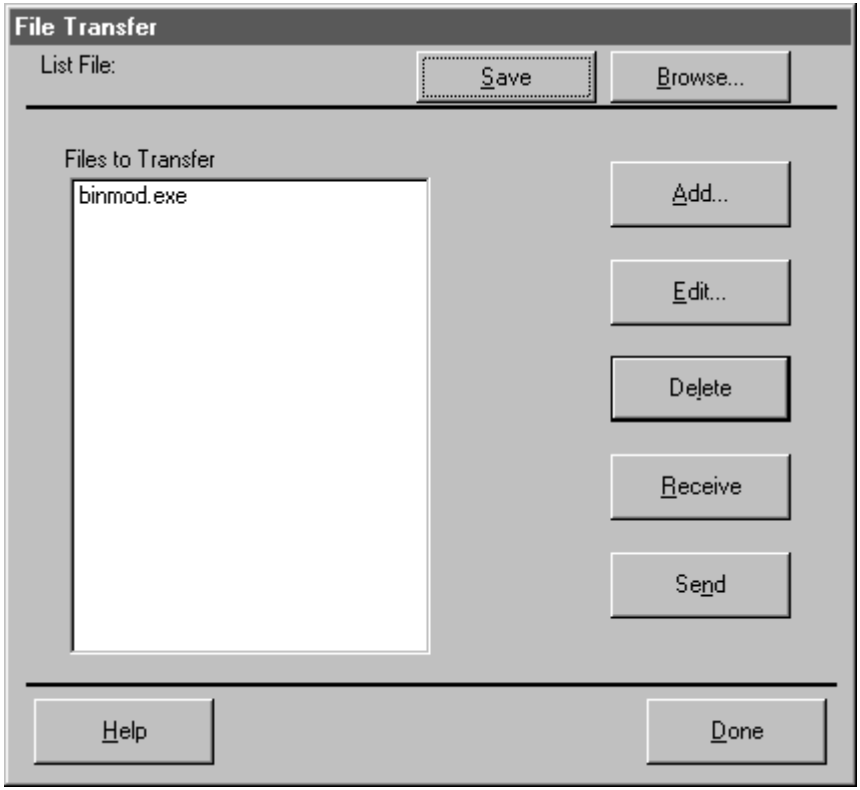


Figure 3-12. The File Transfer Window

File List

The **File List** shows the data files that will be included in the transfer between the PDT 3200 and the PC.

Add

Select **Add** to include additional files in the transfer. The File Selection dialog box opens.

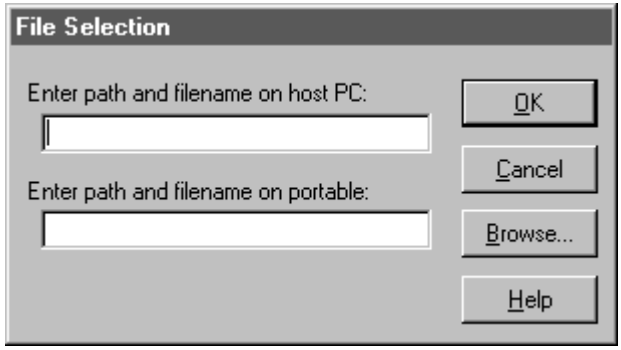


Figure 3-13. The File Selection Dialog Box for Adding a Data File

Enter Path and Filename on Host PC

Use this field to specify the file you want to receive from or transfer to the PDT 3200.

Enter Path and Filename on PDT 3200

Use this field to specify the location and name you want to receive from or transfer to the PC.

OK

Select **OK** to return to the File Configuration window. The specified source file will appear in the Application Files list.

Cancel

Select **Cancel** to return to the File Configuration window without adding a file to the Application Files list.

Browse

Select **Browse** to view the files on your computer. An Open dialog box will appear. Use the dialog box to choose a source file to be included in the Custom configuration.

Help

Select **Help** to view an on-line help screen which explains each option listed on the screen.

Edit

Select a file in the file list and then select **Edit** to change the source path or destination path for the file. The Edit File Properties dialog box opens. The fields and buttons in this dialog box are the same as in the File Selection dialog box above.

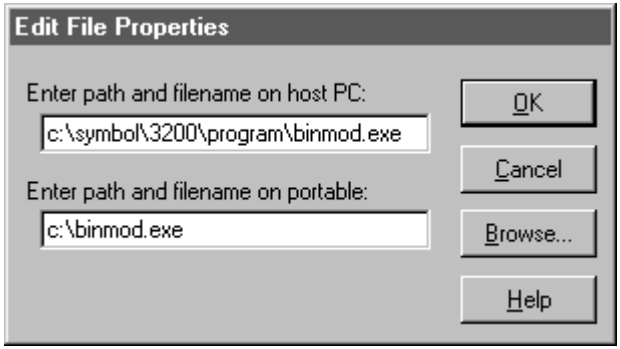


Figure 3-14. The Edit File Properties Dialog Box for Editing a Data File

Delete

To delete a file from the list, select the file and then select **Delete**.

Receive

Select **Receive** to begin a file transfer from the PDT 3200 to the PC. Make sure your PDT 3200 unit is properly connected to the serial port specified in the Comm Settings dialog box (see below). Then, when the prompt window appears on your computer, run the **LD.BAT** file on the PDT 3200, and select **OK** in the prompt window.

Send

Select **Send** to begin a file transfer from the PC to the PDT 3200. Make sure your PDT 3200 unit is properly connected to the serial port specified in the Comm Settings dialog box (see Figure 3-15). Then, when the prompt window appears on your computer, run the **LD.BAT** file on the PDT 3200, and select **OK** in the prompt window.

Help

Select **Help** to view an on-line help screen which explains each option listed on the screen.

Done

Select **Done** when you are finished selecting and transferring files.

The Comm Settings Dialog Box

When you select **Comm Settings** from the Main Menu or the Custom Configuration menu, the Comm Settings dialog box appears. Use this dialog box to view or change settings for serial communications with the PDT 3200.

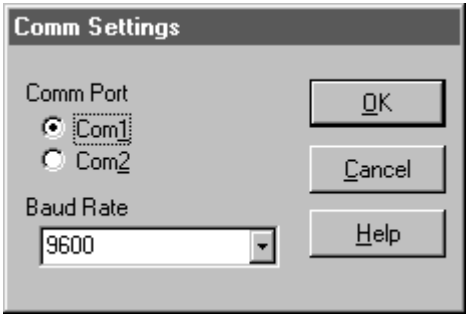


Figure 3-15. The Comm Settings Dialog Box

Comm Port

Select the serial port that your PC will use to communicate with the PDT 3200. The default port is COM1.

Baud Rate

Select the baud rate for serial communications between your PC and the PDT 3200. The default baud rate is 9600.

OK

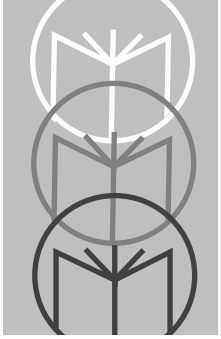
Select OK to save the selections displayed on the screen.

Cancel

Select Cancel if you do not wish to save any changes to the screen.

Help

Select **Help** to view an on-line help screen which explains each option listed on the screen.



Chapter 4 Programming Parameters

Introduction

This chapter contains information about programmable settings for the PDT 3200. You can use the PDT 3200 Configuration Utility (see chapter 3) or the bar codes provided in chapter 5 to program your PDT 3200.

Table provides the following information:

- **Code Parameter** is the "human" name for the programming option.
- **I.D. #** is the "decoder" name for the programming option. For example, if you wanted to set a Code 39 minimum label length, you would use I.D. **#01**. Programming I.D. numbers given in this chapter can be used with all programming methods.
- **Type** tells what kind of setting to use for each code parameter.
  - **On/Off** is a toggle. **1** turns the parameter on, and **0** turns it off.
  - **Value** requires a two-character entry (e.g., **02** for two beeps after each good read).
- **Acceptable Input** gives the settings or range of settings that you can use for each code parameter.
- **Defaults** tells how the parameter is set when you select predefined default D0, D1, or D2.
  - **Predefined Default 0 (D0)** turns every on/off parameter off and sets all minimum and maximum lengths to the lowest values.
  - **Predefined Default 1 (D1)** turns every on/off parameter on, sets all minimum lengths to the lowest values, and sets all maximum lengths to the highest values. This default set is normally used only for troubleshooting. It gives you the best chance of reading an unknown bar code symbology and also identifies the symbology of each bar code you scan.
  - **Predefined Default 2 (D2)** is the default set that was installed in the PDT 3200 at the factory. This default set will work for most applications. If you have

changed any settings and want to reset the PDT 3200 to the original defaults, scan the D2 bar code on page 5-4.

Table 4-1. Parameters, Settings, and Defaults

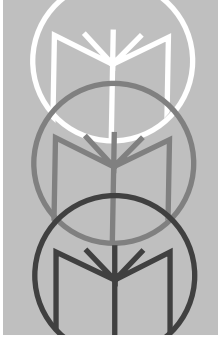
Code Parameter	I.D. #	Type	Acceptable Input	Defaults		
				D0	D1	D2
Code 39 *Enter 1 for On and 0 for Off.*						
Enable	00	On/Off	On *or* Off	Off	On	On
Minimum length	01	Value	00–50	00	00	00
Maximum length	02	Value	01–50	01	50	20
Enable checksum	03	On/Off	On *or* Off	Off	Off	Off
Send checksum	04	On/Off	On *or* Off	Off	Off	Off
Full ASCII mode	05	On/Off	On *or* Off	Off	On	On
Interleaved 2 of 5 *Enter 1 for On and 0 for Off.*						
Enable	08	On/Off	On *or* Off	Off	On	On
Minimum length	09	Value	02–50	02	02	06
Maximum length	0A	Value	02–50	02	50	10
Enable checksum	0B	On/Off	On *or* Off	Off	Off	Off
Send checksum	0C	On/Off	On *or* Off	Off	Off	Off
Use lengths 6 and 14 only *(case code)*	0D	On/Off	On *or* Off	Off	Off	Off
Matrix 2 of 5 *Enter 1 for On and 0 for Off.*						
Enable	10	On/Off	On *or* Off	Off	On	Off
Minimum length	11	Value	01–50	01	01	06
Maximum length	12	Value	01–50	1	50	10
Enable checksum	13	On/Off	On *or* Off	Off	Off	Off
Send checksum	14	On/Off	On *or* Off	Off	Off	Off
Standard 2 of 5 *Enter 1 for On and 0 for Off.*						
Enable	15	On/Off	On *or* Off	Off	On	Off
Minimum length	16	Value	01–50	01	01	06
Maximum length	17	Value	01–50	01	50	10
Enable checksum	18	On/Off	On *or* Off	Off	Off	Off
Send checksum	19	On/Off	On *or* Off	Off	Off	Off
Use 2-bar start/stop	1A	On/Off	On *or* Off	Off	Off	Off

Code Parameter	I.D. #	Type	Acceptable Input	Defaults		
				D0	D1	D2
Code 11 *Enter 1 for On and 0 for Off.*						
Enable	1B	On/Off	On *or* Off	Off	On	Off
Minimum length	1C	Value	01–50	01	01	04
Maximum length	1D	Value	01–50	01	50	10
Require 2 check digits	1E	On/Off	On *or* Off	Off	Off	Off
Send check digit(s)	1F	On/Off	On *or* Off	Off	On	Off

Code Parameter	I.D. #	Type	Acceptable Input	Defaults		
				D0	D1	D2
Codabar/Ames *Enter 1 for On and 0 for Off.*						
Enable	20	On/Off	On *or* Off	Off	On	On
Minimum length	21	Value	01–50	01	01	04
Maximum length	22	Value	01–50	01	50	20
Send start/stop	23	On/Off	On *or* Off	Off	On	Off
Codabar-to-CLSI conversion	24	On/Off	On *or* Off	Off	Off	Off
Wide intercharacter gaps allowed	25	On/Off	On *or* Off	Off	Off	On
MSI *Enter 1 for On and 0 for Off.*						
Enable	26	On/Off	On *or* Off	Off	On	Off
Minimum length	27	Value	01–14	01	01	04
Maximum length	28	Value	01–14	01	14	10
Require 2 check digits	29	On/Off	On *or* Off	Off	Off	Off
2nd check digit Mod 11	2A	On/Off	On *or* Off	Off	Off	Off
Send check digit(s)	2B	On/Off	On *or* Off	Off	On	Off
Universal Product Code-A (UPC-A)*Enter 1 for On and 0 for Off.*						
Enable	30	On/Off	On *or* Off	Off	On	On
Send system digit	31	On/Off	On *or* Off	Off	On	On
Send check digit	32	On/Off	On *or* Off	Off	On	Off
Convert UPC-A to EAN-13	33	On/Off	On *or* Off	Off	On	Off
Universal Product Code-E (UPC-E)*Enter 1 for On and 0 for Off.*						
Use system digit 0	34	On/Off	On *or* Off	Off	On	On
Use system digit 1	35	On/Off	On *or* Off	Off	On	On
Convert UPC-E to UPC-A	36	On/Off	On *or* Off	Off	On	Off
Send system digit	37	On/Off	On *or* Off	Off	On	Off
Send check digit	38	On/Off	On *or* Off	Off	On	Off
European Article Numbering (EAN) Japan Article Numbering (JAN)				*Enter 1 for On and 0 for Off.*		
Enable EAN-8/JAN-8	39	On/Off	On *or* Off	Off	On	On
Enable EAN-13/JAN-13	3A	On/Off	On *or* Off	Off	On	On
Convert EAN-13 to ISBN	3B	On/Off	On *or* Off	Off	Off	Off
Send EAN/JAN checksum	3F	On/Off	On *or* Off	Off	Off	Off

Code Parameter	I.D. #	Type	Acceptable Input	Defaults		
				D0	D1	D2
UPC, EAN, JAN Extensions *Enter 1 for On and 0 for Off.*						
Allow 2-digit extensions	3C	On/Off	On *or* Off	Off	On	On
Allow 5-digit extensions	3D	On/Off	On *or* Off	Off	On	On
Require extensions	3E	On/Off	On *or* Off	Off	Off	Off
Code 128 *Enter 1 for On and 0 for Off.*						
Enable	40	On/Off	On *or* Off	Off	On	On
Minimum length	41	Value	01–50	01	01	02
Maximum length	42	Value	01–50	01	50	20
Enable UCC/EAN 128	43	On/Off	On *or* Off	Off	Off	Off
Labelcode 4/5 *Enter 1 for On and 0 for Off.*						
Enable	52	On/Off	On *or* Off	Off	On	Off
Convert	53	On/Off	On *or* Off	Off	Off	Off
Other Controls *Enter 1 for On and 0 for Off.*						
Laser programming enable	B0	On/Off	On *or* Off	On	On	On
Autoterminator	B1	Value	*Any single ASCII character (00 = Off)*	(CR)	(CR)	(CR)
Auto-off timer	B2	Value	01–99 *(in 4-sec. increments) (00 = Off)*	75	75	75
Send assigned symbology identifiers*	B5	On/Off	On *or* Off	Off	On	Off
**A = UPC-A* *B = I 2 of 5* *C = Code 39* *D = M 2 of 5* *E = UPC-E* *F = S 2 of 5* *G = EAN-8* *H = MSI* *I = Codabar* *J = Code 11* *K = Code 128* *M = EAN-13* *N = Labelcode 4/5* *O = Ames*						
Good-read beep tone	B8	Value	00 = 2400 Hz 02 = 2800 Hz 04 = 3200 Hz 06 = 3600 Hz	00	00	00
Number of good-read tones	B9	Value	01–04	01	01	01
Good-read tone duration	BA	Value	00 = 0.07 sec. 01 = 0.13 sec. 02 = 0.18 sec. 03 = 0.36 sec.	00	00	00

Code Parameter	I.D. #	Type	Acceptable Input	Defaults		
				D0	D1	D2
Beeper volume	BC	Value	00 = Off 01–09 *(01 = Lowest;* *07 = Highest;* *08 = Higher;* *09 = Lower)*	07	07	07
Error tone	BD	Value	01 = 2580 Hz 03 = 3000 Hz 05 = 3600 Hz 07 = 4520 Hz	01	01	01
Keypress sound	DD	Value	00 = Off 01 = Click 02 = Beep	01	01	01
Enable CTRL-ALT-DEL reboot	E0	On/Off	On *or* Off	Off	Off	On
Enable trigger programmability	E1	On/Off	On *or* Off	On	On	On
Backlight auto-off timeout	E2	Value	01–99 *(seconds)* *(00 = Off)*	15	15	15



Chapter 5 Bar Codes for Configuring the PDT 3200

Chapter Contents

Introduction

This chapter provides bar codes for common setup parameters for programming the PDT 3200. Factory default settings are underlined.

To make settings that aren't provided here, you can use your own bar codes or use the PDT 3200 Configuration Utility to program your PDT 3200 (see chapter 3).

Predefined Defaults

D0 *$+$-D0EE*

D1 *$+$-D1EE*

D2 *$+$-D2EE*

Code 39

ENABLE

On *$+$-001EE*

Off *$+$-000EE*

MINIMUM LENGTH

0 *$+$-0100EE*

10 *$+$-0110EE*

20 *$+$-0120EE*

30 *$+$-0130EE*

40 *$+$-0140EE*

50 *$+$-0150EE*

MAXIMUM LENGTH

1 *$+$-0201EE*

10 *$+$-0210EE*

20 *$+$-0220EE*

30 *$+$-0230EE*

40 *$+$-0240EE*

50 *$+$-0250EE*

ENABLE CHECKSUM

On *$+$-031EE*

Off *$+$-030EE*

SEND CHECKSUM

On *$+$-041EE*

Off *$+$-040EE*

FULL ASCII MODE

On *$+$-051EE*

Off *$+$-050EE*

Interleaved 2 of 5

ENABLE

On *$+$-081EE*

Off *$+$-080EE*

MINIMUM LENGTH

2 *$+$-0902EE*

6 *$+$-0906EE*

10 *$+$-0910EE*

20 *$+$-0920EE*

30 *$+$-0930EE*

40 *$+$-0940EE*

50 *$+$-0950EE*

MAXIMUM LENGTH

2 *$+$-0A02EE*

10 *$+$-0A10EE*

20 *$+$-0A20EE*

30 *$+$-0A30EE*

40 *$+$-0A40EE*

50 *$+$-0A50EE*

ENABLE CHECKSUM

On *$+$-0B1EE*

Off *$+$-0B0EE*

SEND CHECKSUM

On *$+$-0C1EE*

Off *$+$-0C0EE*

USE LENGTHS 6 AND 14 ONLY*(case code)*

On *$+$-0D1EE*

Off *$+$-0D0EE*

Matrix 2 of 5

ENABLE

On *$+$-101EE*

Off *$+$-100EE*

MINIMUM LENGTH

1 *$+$-1101EE*

6 *$+$-1106EE*

10 *$+$-1110EE*

20 *$+$-1120EE*

30 *$+$-1130EE*

40 *$+$-1140EE*

50 *$+$-1150EE*

MAXIMUM LENGTH

1 *$+$-1201EE*

10 *$+$-1210EE*

20 *$+$-1220EE*

30 *$+$-1230EE*

40 *$+$-1240EE*

50 *$+$-1250EE*

ENABLE CHECKSUM

On *$+$-131EE*

Off *$+$-130EE*

SEND CHECKSUM

On *$+$-141EE*

Off *$+$-140EE*

Standard 2 of 5

ENABLE

On *$+$-151EE*

Off *$+$-150EE*

MINIMUM LENGTH

1 *$+$-1601EE*

6 *$+$-1606EE*

10 *$+$-1610EE*

20 *$+$-1620EE*

30 *$+$-1630EE*

40 *$+$-1640EE*

50 *$+$-1650EE*

MAXIMUM LENGTH

1 *$+$-1701EE*

10 *$+$-1710EE*

20 *$+$-1720EE*

30 *$+$-1730EE*

40 *$+$-1740EE*

50 *$+$-1750EE*

ENABLE CHECKSUM

On *$+$-181EE*

Off *$+$-180EE*

SEND CHECKSUM

On *$+$-191EE*

Off *$+$-190EE*

USE 2-BAR START/STOP

On *$+$-1A1EE*

Off *$+$-1A0EE*

Code 11

ENABLE

On *$+$-1B1EE*

Off *$+$-1B0EE*

MINIMUM LENGTH

4 *$+$-1C04EE*

10 *$+$-1C10EE*

20 *$+$-1C20EE*

30 *$+$-1C30EE*

40 *$+$-1C40EE*

50 *$+$-1C50EE*

MAXIMUM LENGTH

1 *$+$-1D01EE*

10 *$+$-1D10EE*

20 *$+$-1D20EE*

30 *$+$-1D30EE*

40 *$+$-1D40EE*

50 *$+$-1D50EE*

REQUIRE 2 CHECK DIGITS

On *$+$-1E1EE*

Off *$+$-1E0EE*

SEND CHECK DIGIT(S)

On *$+$-1F1EE*

Off *$+$-1F0EE*

Codabar/Ames

ENABLE

On *$+$-201EE*

Off *$+$-200EE*

MINIMUM LENGTH

1 *$+$-2101EE*

4 *$+$-2104EE*

10 *$+$-2110EE*

20 *$+$-2120EE*

30 *$+$-2130EE*

40 *$+$-2140EE*

50 *$+$-2150EE*

MAXIMUM LENGTH

1 *$+$-2201EE*

10 *$+$-2210EE*

20 *$+$-2220EE*

30 *$+$-2230EE*

40 *$+$-2240EE*

50 *$+$-2250EE*

SEND STOP/START

On *$+$-231EE*

Off *$+$-230EE*

CODABAR-TO-CLSI CONVERSION

On *$+$-241EE*

Off *$+$-240EE*

WIDE INTERCHARACTER GAPS ALLOWED

On *$+$-251EE*

Off *$+$-250EE*

MSI

ENABLE

On *$+$-261EE*

Off *$+$-260EE*

MINIMUM LENGTH

1 *$+$-2701EE*

4 *$+$-2704EE*

7 *$+$-2707EE*

10 *$+$-2710EE*

12 *$+$-2712EE*

14 *$+$-2714EE*

MAXIMUM LENGTH

1 *$+$-2801EE*

4 *$+$-2804EE*

7 *$+$-2807EE*

10 *$+$-2810EE*

12 *$+$-2812EE*

14 *$+$-2814EE*

REQUIRE 2 CHECK DIGITS

On *$+$-291EE*

Off *$+$-290EE*

2ND CHECK DIGIT MOD 11

On *$+$-2A1EE*

Off *$+$-2A0EE*

SEND CHECK DIGIT(S)

On *$+$-2B1EE*

Off *$+$-2B0EE*

Code 128

ENABLE

On *$+$-401EE*

Off *$+$-400EE*

MINIMUM LENGTH

1 *$+$-4101EE*

2 *$+$-4102EE*

10 *$+$-4110EE*

20 *$+$-4120EE*

30 *$+$-4130EE*

40 *$+$-4140EE*

50 *$+$-4150EE*

MAXIMUM LENGTH

1 *$+$-4201EE*

10 *$+$-4210EE*

20 *$+$-4220EE*

30 *$+$-4230EE*

40 *$+$-4240EE*

50 *$+$-4250EE*

ENABLE UCC/EAN 128

On *$+$-431EE*

Off *$+$-430EE*

Labelcode 4/5

ENABLE

On *$+$-521EE*

Off *$+$-520EE*

CONVERT

On *$+$-531EE*

Off *$+$-530EE*

UPC-A

ENABLE UPC-A

On *$+$-301EE*

Off *$+$-300EE*

SEND SYSTEM DIGIT

On *$+$-311EE*

Off *$+$-310EE*

SEND CHECK DIGIT

On *$+$-321EE*

Off *$+$-320EE*

CONVERT UPC-A TO EAN-13

On *$+$-331EE*

Off *$+$-330EE*

UPC-E

USE SYSTEM DIGIT 0

On *$+$-341EE*

Off *$+$-340EE*

USE SYSTEM DIGIT 1

On *$+$-351EE*

Off *$+$-350EE*

CONVERT UPC-E TO UPC-A

On *$+$-361EE*

Off *$+$-360EE*

SEND SYSTEM DIGIT

On *$+$-371EE*

Off *$+$-370EE*

SEND CHECK DIGIT

On *$+$-381EE*

Off *$+$-380EE*

EAN/JAN

ENABLE EAN-8/JAN-8

On *$+$-391EE*

Off *$+$-390EE*

ENABLE EAN-13/JAN-13

On *$+$-3A1EE*

Off *$+$-3A0EE*

CONVERT EAN-13 TO ISBN

On *$+$-3B1EE*

Off *$+$-3B0EE*

SEND EAN/JAN CHECKSUM

On *$+$-3F1EE*

Off *$+$-3F0EE*

UPC/EAN/JAN Extensions

ALLOW 2-DIGIT EXTENSIONS

On *$+$-3C1EE*

Off *$+$-3C0EE*

ALLOW 5-DIGIT EXTENSIONS

On *$+$-3D1EE*

Off *$+$-3D0EE*

REQUIRE EXTENSIONS

On *$+$-3E1EE*

Off *$+$-3E0EE*

Other Controls

AUTOTERMINATOR

(CR) *$+$-B1$MEE*

(TAB) *$+$-B1$IEE*

None *$+$-B1%UEE*

AUTO-OFF TIMER

Off *$+$-B200EE*

20 sec. *$+$-B205EE*

40 sec. *$+$-B210EE*

1 min. *$+$-B215EE*

2 min. *$+$-B230EE*

3 min. *$+$-B245EE*

4 min. *$+$-B260EE*

5 min. *$+$-B275EE*

6 min. *$+$-B290EE*

SEND ASSIGNED SYMBOLOGY IDENTIFIER

On *$+$-B51EE*

Off *$+$-B50EE*

GOOD-READ BEEP TONE *(in Hertz)*

2400 *$+$-B800EE*

2800 *$+$-B802EE*

3200 *$+$-B804EE*

3600 *$+$-B806EE*

NUMBER OF GOOD-READ BEEPS

1 *$+$-B901EE*

2 *$+$-B902EE*

3 *$+$-B903EE*

4 *$+$-B904EE*

GOOD-READ BEEP DURATION *(in seconds)*

0.07 *$+$-BA00EE*

0.13 *$+$-BA01EE*

0.18 *$+$-BA02EE*

0.36 *$+$-BA03EE*

BEEPER VOLUME

Off *$+$-BC00EE*

Lowest *$+$-BC01EE*

Medium *$+$-BC04EE*

Highest *$+$-BC07EE*

Higher *$+$-BC08EE*

Lower *$+$-BC09EE*

ERROR BEEP TONE *(in Hertz)*

2580 *$+$-BD01EE*

3000 *$+$-BD03EE*

3600 *$+$-BD05EE*

4520 *$+$-BD07EE*

KEYPRESS SOUND

Off *$+$-DD00EE*

Click *$+$-DD01EE*

Beep *$+$-DD02EE*

ENABLE CTRL-ALT-DEL REBOOT

On *$+$-E01EE*

Off *$+$-E00EE*

ENABLE TRIGGER PROGRAMMABILITY

On *$+$-E11EE*

Off *$+$-E10EE*

BACKLIGHT AUTO-OFF TIMEOUT*(in seconds)*

Off	*$+$-E200EE*
2	*$+$-E202EE*
5	*$+$-E205EE*
7	*$+$-E207EE*
9	*$+$-E209EE*
15	*$+$-E215EE*
20	*$+$-E220EE*
30	*$+$-E230EE*

Index

D

E

F

I

J

K

L

Index

R

S

T

U

V

W

X

Tell Us What You Think...

We'd like to know what you think about this manual. Please take a moment to fill out this questionnaire and fax this form to: (516) 738-3318, or mail to:

Symbol Technologies, Inc.
One Symbol Plaza M/S B-4
Holtsville, NY 11742-1300
Attn: Technical Publications Manager

IMPORTANT: If you need product support, please call the appropriate customer support number provided. Unfortunately, we cannot provide customer support at the fax number above.

User's Manual Title: _____

_____ (please include revision level)

How familiar were you with this product before using this manual?

®Very familiar ® Slightly familiar ® Not at all familiar

Did this manual meet your needs? If not, please explain. _____

_____

_____

What topics need to be added to the index, if applicable? _____

_____

What topics do you feel need to be better discussed? Please be specific. _____

_____

_____

What can we do to further improve our manuals? _____

_____

_____

Thank you for your input—We value your comments.