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Disclaimer

System Warranty

This system is warranted to be free of defects in materials and workmanship under normal use for a period of 6 months from the date of purchase.

This warranty applies to the original purchaser only. This warranty is void if the system has been tampered with in any way without the express written consent of Brady Worldwide, Inc.

If the machine requires repair during the warranty period, call 1-800-368-3362 to receive a return authorization number, then ship the machine back to us in the original container along with a copy of the sales invoice to Brady Worldwide, Inc. Signmark® Division, 2221 W. Camden Road, Milwaukee, WI 53209, Attention: Repair. The machine will be returned to you after repair, freight prepaid by Brady Worldwide, Inc.

IN CANADA call 1-800-263-6179 to receive a return authorization number, then ship the machine to us in the original container along with a copy of the sales invoice to W. H. Brady, Inc. Signmark® Division, 56 Leek Cr., Richmond Hill, ON L4B 1H1, Attention: Repair. The machine will be returned to you after repair, freight prepaid by W. H. Brady, Inc.

Brady Warranty

Our products are sold with the understanding that the buyer will test them in actual use and determine for him or herself their adaptability to his/her intended uses. Brady warrants to the buyer that its products are free from defects in material and workmanship, but limits its obligation under this warranty to replacement of the product shown to Brady's satisfaction to have been defective at the time Brady sold it. This warranty does not extend to any persons obtaining the product from the buyer.

THIS WARRANTY IS IN LIEU OF ANY OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND OF ANY OTHER OBLIGATIONS OR LIABILITY ON BRADY'S PART. UNDER NO CIRCUMSTANCES WILL BRADY BE LIABLE FOR ANY LOSS, DAMAGE, EXPENSE OR CONSEQUENTIAL DAMAGES OF ANY KIND ARISING IN CONNECTION WITH THE USE, OR INABILITY TO USE, BRADY'S PRODUCTS.

FCC Notice - US Only

Warning: This equipment generates, uses and can radiate radio frequency energy. If not installed and used in accordance with the manufacturer's instructions, it may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart B of Part 15 of the FCC rules, which are designed to provide reasonable protection against interference when operating in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case required corrective measures will be at the owner's expense.

The user is cautioned that any changes or modifications not expressly approved by Brady Worldwide, Inc. could void the user's authority to use the equipment.

Canada

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numerique de la classe A respecte toutes les exigences du Reglement sur le material broilleur du Canada.

Europe

This is a Class A product. In a domestic environment this product may cause radio interference, in which case the user may be required to take adequate measures.

International Power Cords

Users in countries outside of North America may have to supply their own power cord for connecting the system to an AC electrical outlet. The table below shows the specifications for the power cord to be used in various countries:

In this country:	Use this power cord:	
Sweden, Denmark, Norway, Finland, Holland, Switzerland, Austria, Germany, Italy, Belgium, France, Spain, Portugal, Hungary	**Specifications**	
	plug:	CEE-7
	connector:	IEC 320
	conductor size:	3×1.00 mm^2
	description:	H05VVF3G1.0
	typ. stranding:	32/0.2 mm
	current rating:	10A
	voltage rating:	250 VAC
	maximum length:	less than 3 meters
United Kingdom, Ireland, South Africa	**Specifications**	
	plug:	BS 1363A
	connector:	IEC 320
	conductor size:	3×1.00 mm^2
	description:	H05VVF3G1.0
	typ. stranding:	32/0.2 mm
	current rating:	10A
	voltage rating:	250 VAC
	maximum length:	less than 3 meters
Australia, New Zealand	**Specifications**	
	plug:	AS 3112-1981
	connector:	IEC 320
	conductor size:	3×1.00 mm^2
	description:	AS 3191
	typ. stranding:	32/0.2 mm
	current rating:	10A
	voltage rating:	250 VAC
	maximum length:	less than 3 meters

Specifications

Physical characteristics

Size: 12.38 x 19.8 x 19.13 inches (31.45 x 49.73 x 48.59 cm)

Weight: 45 pounds (20.25 kg)

Environmental characteristics

Ambient operating temperature: 40° F to 105° F (4° C to 41° C)

Relative humidity: 20 to 80% (non-condensing)

Storage requirements: 0° F to 140° F (-18° C to 60° C), relative humidity 10 to 95% (non-condensing)

Electrical characteristics

Input current: 2.0 Amps

Input voltages: 120/230/240 VAC

Input frequency: 50 to 60 Hz

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Chapter 1: System Basics

Welcome! This user's guide describes your new labeling system, which lets you create and print professional-looking labels and signs for use just about anywhere. All you need to do is pop in the ribbon and tape you want to use, type your text and print! Your label or sign prints on adhesive-backed tape that can be placed wherever you need clear, easy-to-read labels and signs.

The system is designed to handle a range of tape widths, from 4 to 10 inches (100 to 250 mm), to provide the versatility you need. In addition, the system can use special ribbons that contain multiple colors, allowing you to design labels and signs that are truly eye-catching.

To type your labels and signs, you use the standard keyboard attached to the printer. A display screen on the front of the printer lets you preview what you've typed. By just pressing the function keys on the keyboard, you can easily apply special type effects, change the font, add graphics, incorporate bar codes—and more! You can even save your labels and signs so that you can print more copies when you need them by just pressing a few keys.

This user's guide covers all system features. Follow the steps in this chapter for setting up your system, and your system will be ready to go in no time. Then move on to Chapter 2, where you'll find step-by-step instructions for creating a label. We encourage you to try out the variety of options described in the remaining chapters and see just what your system can do. Whoever said work couldn't be fun!

Setting up your system

This section describes how to get your system up and running. It includes instructions for installing or replacing the ribbon and tape supplies.

Unpacking and setting up the printer

Your system is so easy to set up, you'll be creating labels in just minutes! Follow these steps to get started:

1) **Remove the bag from around the printer.**

2) **Press the red cover release button and raise the printer cover up and away to the left.**

   The release button is located on the lower right side of the printer.

Printer cover

Cover release button
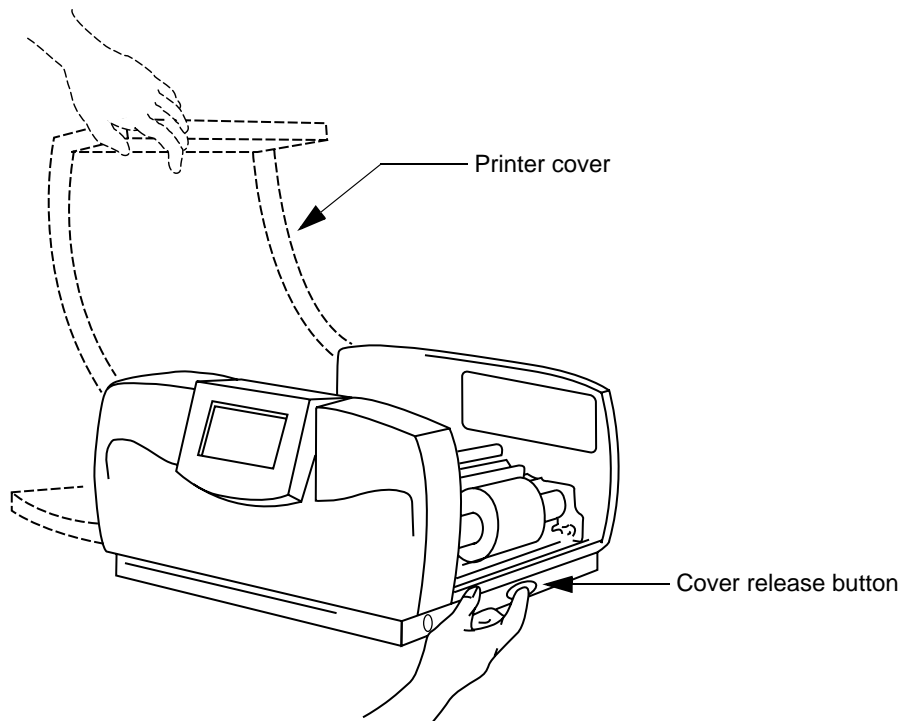
3) **Remove and discard the foam piece that surrounds the printhead inside the printer.**

4) Close the printer cover by pressing down on the top right side until you hear it click into place.
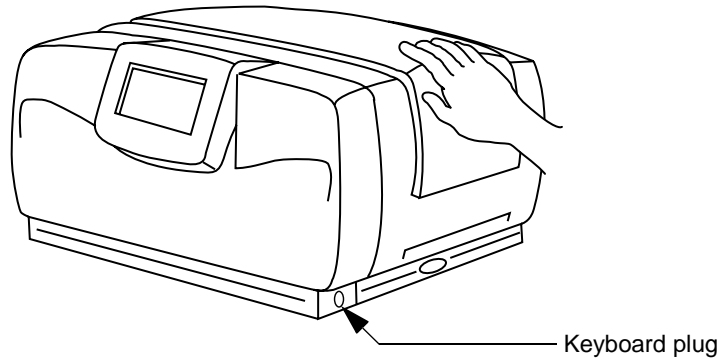
Keyboard plug

5) Plug the keyboard into the lower right side of the printer as shown above.

6) Plug the power cord into the back of the printer as shown below. Plug the other end of the cord into an AC power outlet.

On/off switch   Power plug
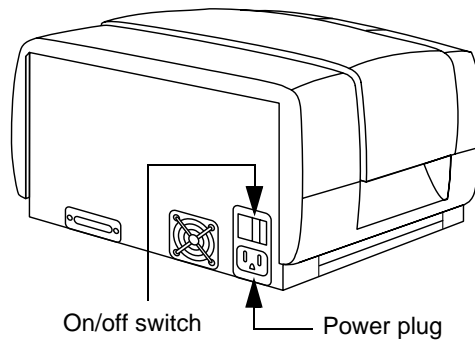
Note: Be sure the AC power outlet is located near the printer and is easily accessible.

Note: Users in countries outside of North America may need to supply their own power cord to meet the specifications required in individual countries. For information on power cord requirements, refer to the table on page v in this guide.

---

7) Follow the steps in the next two subsections in this chapter to load ribbon and tape in the printer.

8) To turn on the system's power, push down on the left side of the power switch (the 1 position). Refer to the illustration in step 6.

When you first turn the system on, an introductory screen displays briefly and then the Application window appears. The items listed depend on which applications are available in your system.

```
╔══════════ Application ══════════╗
║ Freeform                        ║
║ Signs                           ║
║ Hazardous Waste Labels          ║
║ Pipe Markers                    ║
╚═════════════════════════════════╝
      Press ↑↓, ENTER or SETUP
```
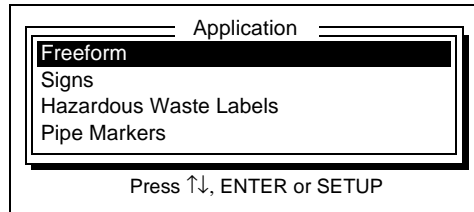
> **Note:** If supplies are not installed when you turn on the system, the "Unknown supply type" message appears. Refer to "Working with supplies" on page 4-2 for details on this message and how to respond to it. Also note that if the system doesn't detect a keyboard, it assumes you want to control it from a PC, and the "On line" message displays. Refer to Chapter 6, "Using the Printer With a PC," for details.

Refer to "Using the display screen" on page 1-13 for details on using the windows and for other introductory information about the system. Then refer to the remaining chapters in this guide for details on creating labels and making them look just the way you want!

Inserting and removing tape

This section describes how to insert and remove the system's supply tape. These directions assume that you are facing the front of the printer (where the display screen is located).

> **Note:** When you open the printer, you'll see a set of illustrations attached to the inside of the unit. These illustrations show you how to install the tape (on the right side of the printer) and the ribbon (on the left side). Illustrations five through seven refer to tape loading.

1) Press the red cover release button and raise the printer cover up and away to the left.

The release button is located on the lower right side of the printer, as shown on page 1-2.

2) If a roll of tape is already installed, remove it.

- Flip the blue memory cell flag counter-clockwise out of the red memory cell holder.

- Rotate the tape roll clockwise until the leading edge of the tape is removed from the tape feed slot and starts to rewind around the tape roll.

- Grasp the tape spool and pull it toward you, compressing the spring on the near side of the printer. When the gray tape roll insert is no longer covering the blue drive cone, lift the tape spool out of the printer.

3) **If you are inserting a new roll of tape, remove the shrinkwrap from it and pull off the yellow tab. Hold the tape spool you are inserting so that the blue memory cell flag is on the far side of the roll.**

Blue memory cell flag
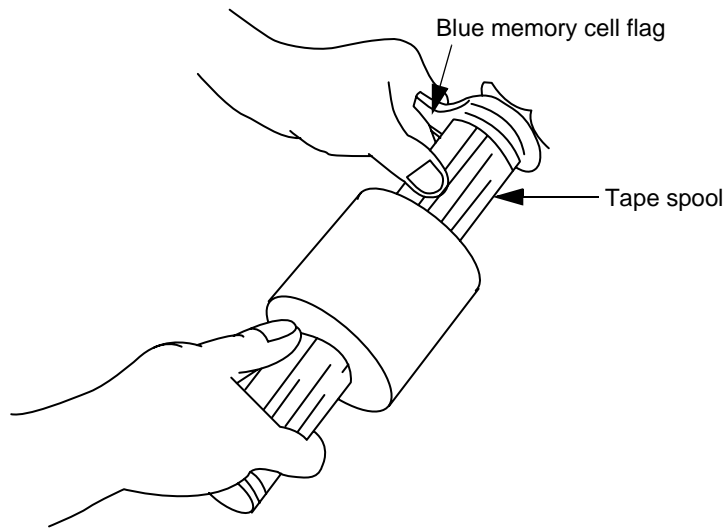
Tape spool

4) **Place the near end of the gray tape roll insert over the blue drive cone in the lower right side of the machine. Pull the tape spool toward you, then place the opposite end of the gray tape roll insert over the blue drive cone on that side.**
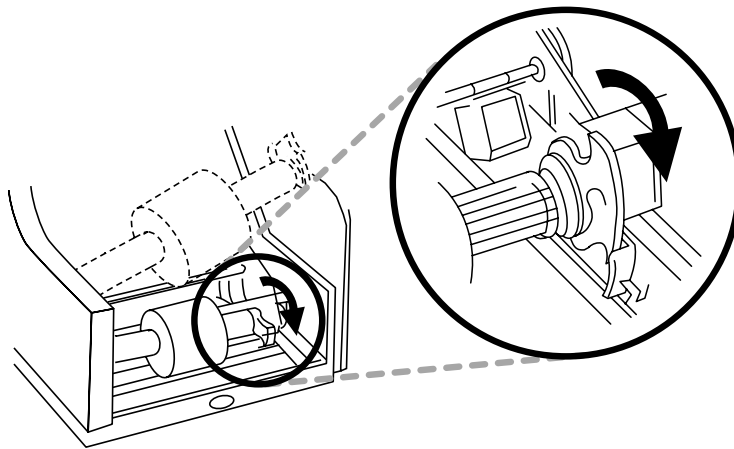
5) Flip the blue memory cell flag clockwise so that it is seated in the red memory cell holder.
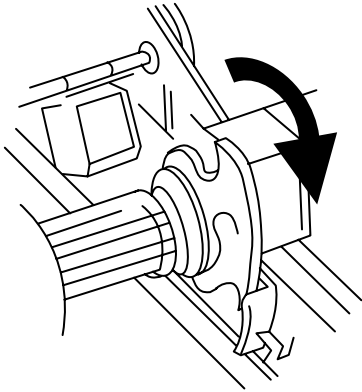
6) Lift and remove the tape wiper from the printer.

If you need to replace the wiper pad, see "Cleaning the system" on page 7-2.

Tape wiper
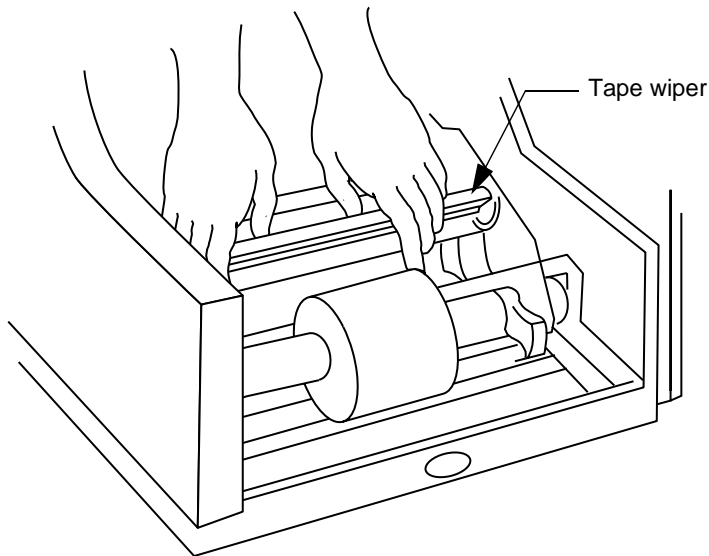
7) Grasp the leading edge of the tape and guide it over the metal bar and black roller and into the red tape feed slot. (Note that you may need to first slide the two red tape guides out of the way.)

A set of arrows marks the tape feed slot. Feed the tape in below those arrows.
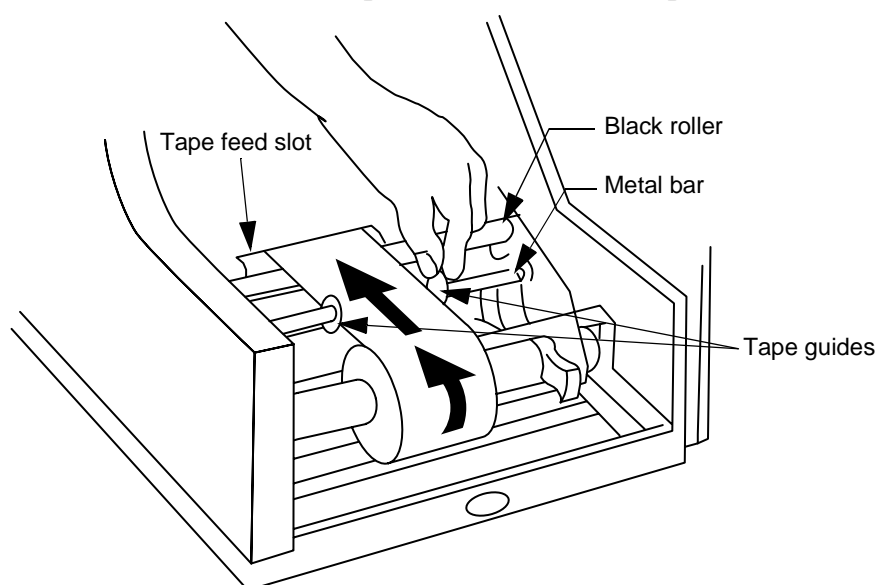
8) **Slide the two red tape guides towards the tape so they snap into place along each side of the tape, as shown above.**

9) **Replace the tape wiper.**

10) **Close the printer cover by pressing down on the top right side until you hear it click into place.**

Inserting and removing ribbon

This section describes how to insert and remove the system's supply ribbon. These directions assume that you are facing the front of the printer (where the display screen is located).


Note: When you open the printer, you'll see a set of illustrations attached to the inside of the unit. These illustrations show you how to install the tape (on the right side of the printer) and the ribbon (on the left side). Illustrations 1-4 refer to ribbon loading.

---

1) **If this is the first time you have used the printer, unpack the clear plastic ribbon cartridge case, and remove the wrapping.**

2) **Press the red cover release button on the printer, and raise the printer cover up and away to the left.**

The release button is located on the lower right side of the printer, as shown on page 1-2.

3) If a ribbon is already installed, remove the ribbon cartridge case from the printer.

- Locate the clear ribbon cartridge case in the upper left side of the printer.

- Flip the blue memory cell flag counter-clockwise out of the red memory cell holder.

- Snap the hook on the memory cell flag to the ribbon cartridge case.
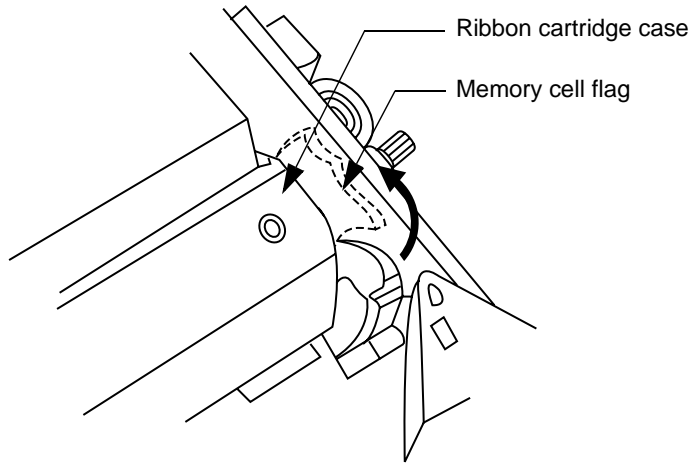
- Grasp both sides of the ribbon cartridge case and pull it toward you, compressing the spring on the near side of the printer.

- When the far side of the gray ribbon roll inserts no longer cover the blue drive cones, lift the ribbon cartridge case out of the printer.
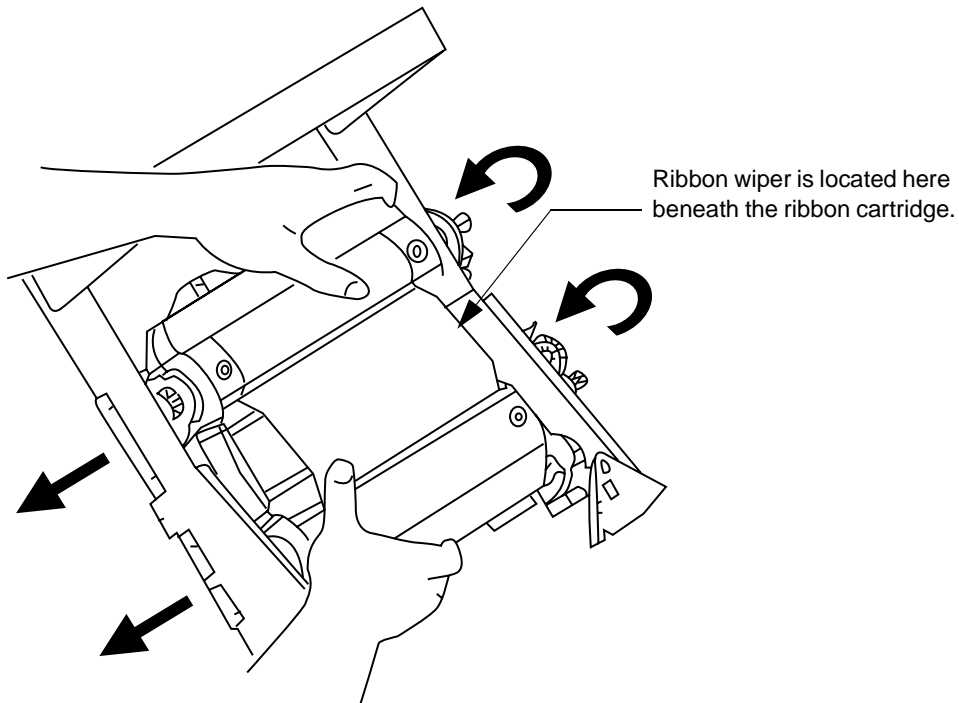
4) Set the ribbon cartridge case on a flat surface and open the case. If the case contains a ribbon, lift it out of the case. Place the case so that the white "Flag here" label is on the far side of the case.

"Flag here" label
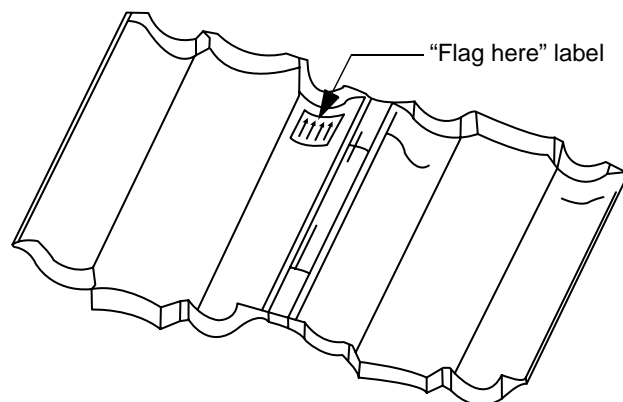
5) If you're inserting a new ribbon, remove and discard the shrinkwrap.

6) **Hold the ribbon cartridge you are inserting so that the blue memory cell flag is on the far right side of the cartridge. Place the ribbon cartridge into the ribbon cartridge case, ensuring that the memory cell flag is in the opening indicated by the label.**
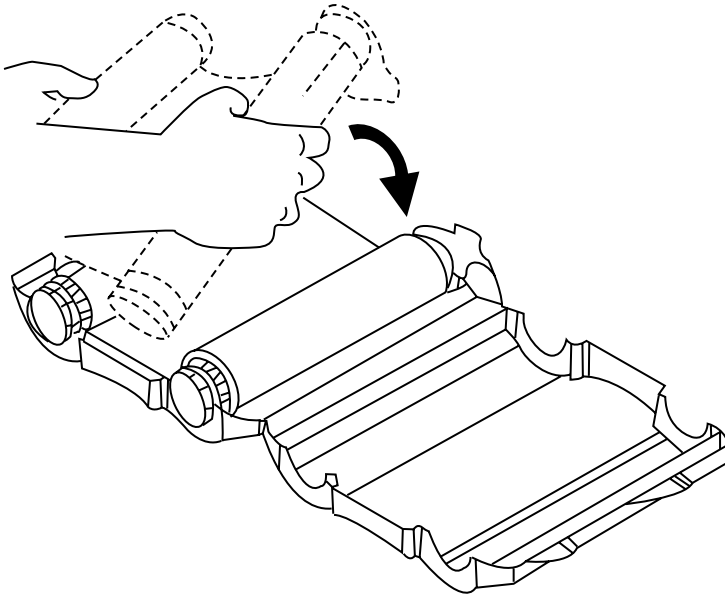
7) **Place the second groove on the ribbon cartridge insert into the edges of the ribbon cartridge case.**
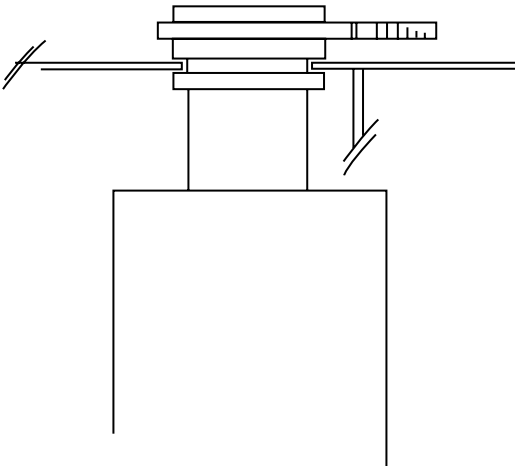
8) Close the ribbon cartridge case as shown below. Hook the blue memory cell flag onto the ribbon cartridge case.
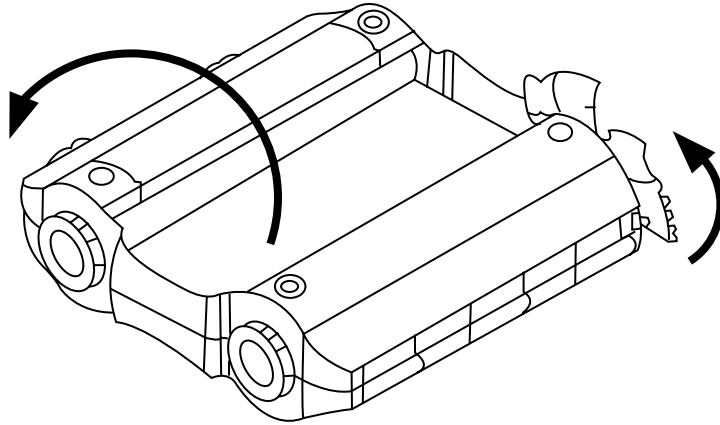
9) Place the near end of the gray ribbon roll inserts over each of the blue drive cones in the upper left side of the printer. Grasp both sides of the case and pull it toward you so that the spring compresses, then place the opposite ends of the gray ribbon inserts over the blue drive cones on that side.
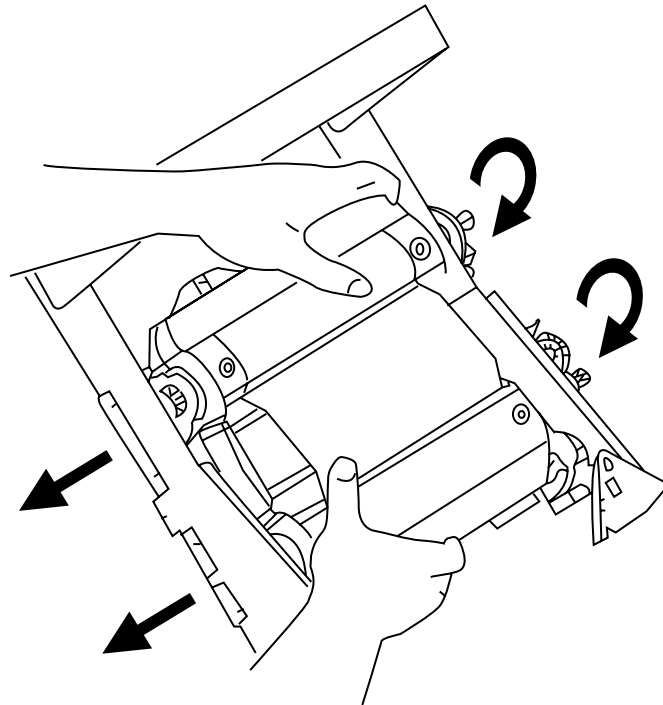
**10) Flip the blue memory cell flag clockwise so that it is seated in the red memory cell holder.**
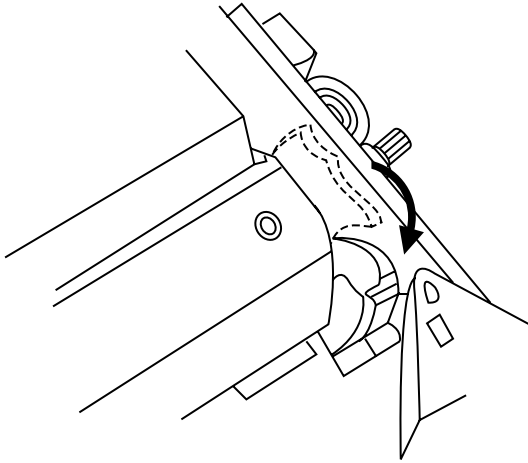
11) Close the printer cover by pressing down on the top right side until you hear it click into place.

Using the display screen

After your system has started, the display screen lists choices similar to the ones shown below. You can choose to run a specialty application, such as Signs, which guides you through the steps of creating certain kinds of safety and warning signs. You can also choose to create a freeform label, which gives you complete control over setting up labels and selecting options. Chapter 2 discusses each of these label creation methods.

> **Note:** When the Application window is displayed, you can press the Setup key on the labeling system keyboard to choose settings before selecting an application. Refer to "Setting system defaults" on page 1-23.

```
┌═══════════ Application ═══════════┐
│ Freeform                          │
│ Signs                             │
│ Hazardous Waste Labels            │
│ Pipe Markers                      │
└═══════════════════════════════════┘
       Press ↑↓, ENTER or SETUP
```
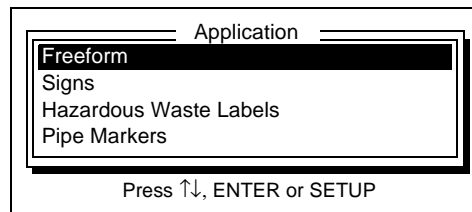
If you select the Freeform option in the Application window (by moving the cursor to that option and pressing Enter), the display screen functions as described in this section. If you choose one of the specialty applications, the display screen is used a little differently. Refer to "Using standard layouts" on page 2-11 and to the sections describing the specialty applications located at the end of this guide.

The screen on your system displays several types of information as shown in the following illustrations and discussed in the following subsections.

Text entry area: Displays text and other label elements as you type.

Cursor: Blinking character that shows current position in the display.

High Pressure Steam_

▭ : 1
▣ : 1
≡ : 1
13.75"

Navigation area: Indicates current label, area and line number. Also displays label length.

High Pressure Steam

Preview area: Shows what the label will look like when printed.

High Pressure Steam‗

: 1
: 1
: 1

13.75"

Type Options
Color: *Black*
Expand/Condense: 100%
Italics: Off
Underline: Off ↓

Press ↑↓←→, ENTER or ESCAPE

Aa

Selection window: Displays options you
can set and choices you can make.

High Pressure Steam‗

: 1
: 1
: 1

13.75"

Printing paused.
Press Enter to continue or Escape
to quit.

Message window: Displays information or
instructions about something you need to do.

The text entry area

As you create labels, the information you enter (such as text and formatting markers) displays in the text entry area. If you type more characters on a line than will fit in the display window, the display scrolls so the new characters are visible. Press the Enter key to begin a new line on the label. Use the up and down (↑ and ↓) and left and right (← and →) arrow keys on the keyboard to move the cursor around the text entry area within a label.

As you work on a label, the information is stored in the system's temporary memory which is called the *text buffer*. The text buffer stores everything you enter until you

delete or clear it or turn the system off. As previously noted, all information in the text buffer isn't visible at once. If you have created several labels or areas using the New Label and New Area keys, only one label or area is visible at a time. Use the Next/Prev Label and Next/Prev Area keys to move between labels and areas.

The navigation area

The navigation area indicates the number of the label, area and line you are currently working in. It also displays the current label length and provides a way to quickly move to other labels, areas and lines. Note that the navigation area is used for moving between labels, areas and lines that already exist. To create new items, you need to use the New Label, New Area and Enter keys.

- To move to a specific label, area or line, press the Tab key to move the cursor from the text entry area to the navigation area. Use the up and down arrow keys (↑ and ↓) to move to the label, area or line field. Type the number of the item you want to move to (for example, enter 5 in the label field) and press Enter. The cursor moves to the specified line, area or label. (You can press Tab again to return the cursor to the text entry area without moving to a different label, area or line.)

- If the area or line you chose to move to does not exist, the cursor moves to the first line or area in the specified label. If the requested label does not exist, the following message displays:

    > Label does not exist

    The cursor returns to the navigation area, and you can press Escape to return the cursor to the text entry area.

- The bottom line in the navigation area shows the length of the current label. If you haven't specified a label length (see "Setting label length" on page 3-12), this value indicates the length of the data you have entered for the current label. This length includes the *leader* and *trailer*, which are the blank tape at the beginning and end of a label. If you have specified a label length, that value is displayed.

    The label length indicator uses the unit of measure selected for the Length Units option. See "Setting system defaults" on page 1-23 for more information.

The preview area

The preview area is designed to give you an idea of what a label will look like when it's printed. Unless you turn Off the Automatic Preview setting in Setup, the system automatically displays the text and symbols you've entered and applies any formatting changes you've made, bar codes you've inserted, date and time information you've entered, and so on. Note that the preview area does not show any colors that you've

selected. Refer to "Setting system defaults" on page 1-23 for more information about the Automatic preview setting.

The selection window

The selection window lets you choose options that you want to set and select settings for those options. When you press a function key on the labeling system keyboard, a selection window with the same name as the key you pressed displays in the preview area. For example, when you press the Type Options key, you need to select settings for the options. The window shown below appears when you press the Type Options key.

```
High Pressure Steam_                          ⬜ :  1
                                              ▣▢▢ :  1
                                              ▭ :  1
                                                   13.75"
┌──────────────── Type Options ────────────────┐
│  Color:                          *Black*      │
│  Expand/Condense:                100%         │
│  Italics:                        Off          │
│  Underline:                      Off          │
│                                               │
│  ➤    Press ↑↓←→, ENTER or ESC                │
└───────────────────────────────────────────────┘
                    Aa ◄
```

The help line below the selection window displays the keys that are available.

In some cases, the sample area shows you the effect of the setting that's currently selected.
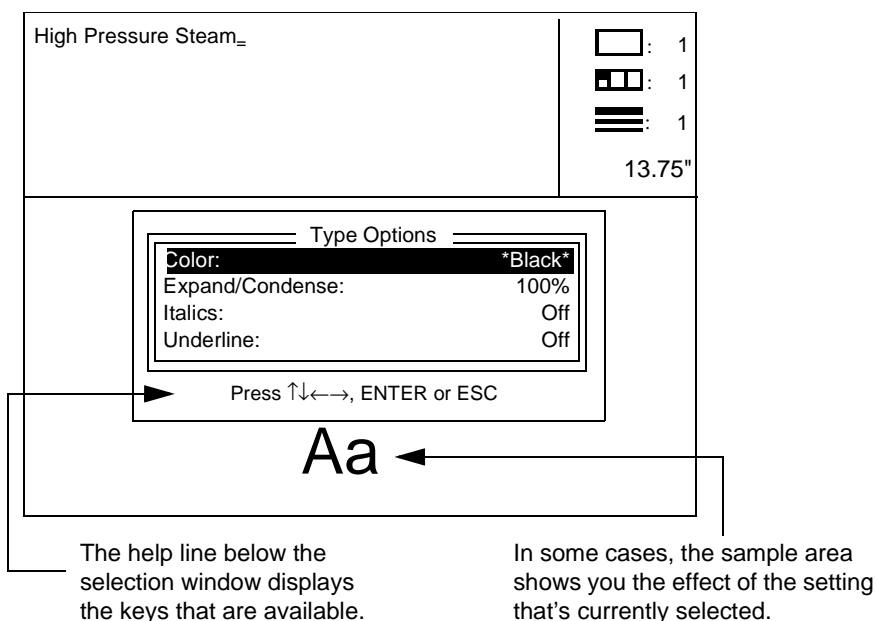
In most selection windows, you can use the following keys.

• Press the **up and down arrow keys** (↑ and ↓) to move the cursor between the options displayed in the window. If an arrow appears on the right side of the window, the window contains options that don't fit in the display. Press the arrow keys to display the additional options.

• When an option is highlighted, press the **left and right arrow keys** (← and →) to display the choices you can select. Some options, such as underlining, have on/off options. For other options, such as Justification, you can select from several choices. Continue to press the keys to scroll through the available choices. The setting that is displayed when you close the window is the one that will be used.

- Use the **alphanumeric keys** on the keyboard to type your choice when an option requires it. For example, if you are changing the type size, you need to type the size you want to use.

- Press the **Enter key** to accept any changes you've made in the selection window. The system then either returns you to the text entry area and redisplays the preview area or carries out the function you chose. In some cases, additional windows or prompts may appear.

- Press the **Escape key** to return to the text entry area without accepting any changes you've made in the selection window.

Markers

The symbols illustrated and described in the following table are called *markers*. They appear in the text entry area to show where you have changed the look of a label or inserted a special feature such as a sequence or a bar code. When you print a label, the markers do not print but the information in the marker is used to determine how the label should be printed.

Marker	What it represents
Change marker	Displays when you use the Type Options key or if you select a type style or type size for a certain section of text. All text following the marker uses the setting that was selected at the marker until the setting is changed again. The system inserts a change marker each time you make a type change; you could have several markers in a row if you make multiple changes. (If you make multiple changes in a window at one time, such as in the Type Options window, all changes are stored in the same change marker.) If you prefer to have fewer change markers, make your first type change, place the cursor on that change marker and make your other changes. This stores the changes in one marker.
Sequence marker	Appears if you have pressed the Sequence key to set up a series of labels. Refer to "Creating sequences" on page 3-26.
Symbol marker	Appears when you have placed a special symbol within the text by pressing the Graphics key and entering a symbol number. Refer to "Adding graphics" on page 3-10.
Date/time marker	Indicates that the time and/or date will be printed at that point on the label. See "Using the date and time option" on page 3-22.

Bar code marker ‖‖	Appears when you press the Bar Code key. All information between the two bar code markers is considered to be part of the bar code. Refer to "Working with bar codes" on page 3-28.
Special bar code character marker ■	Appears when you hold down the Alt key and press Bar Code while entering certain bar code symbologies. Refer to "Working with bar codes" on page 3-28.

The text buffer can contain up to 64 type changes made with change markers (such as fonts, type sizes and underlining). If you exceed this number, the following message displays. You'll need to delete an existing type change before you can add another one.

> Too many type changes

System messages

System messages may display in the preview area to give information about something you have done, ask you to confirm an action (such as deleting a file) or tell you what you've done wrong if you've made an error. Many of these messages disappear from the screen automatically, although some ask you to press a key to continue.

> Ribbon out. Reload ribbon. Press any key to continue.

Some messages require you to respond to a question, as shown below. If a yes/no response is required, you can press Enter to accept the displayed response, press the ← or → key to display Yes or No and then press Enter, or type the first letter of the word.

> Are you sure?   No

Using the keyboard

Your system's keyboard operates much like a standard computer keyboard. This section describes keyboard features and how to perform basic tasks such as inserting and deleting text.

Overtyping and inserting

As you create your labels, you may need to edit or add to the text you've already entered. You can do this by overtyping or inserting text.

• When you first use your system, the Insert function is on by default. This means that when you start typing text, the text will be inserted after the character on which the cursor is positioned.

• If you want the text you type to overwrite the existing text, press the Insert key on the keyboard to turn the Insert function off. Note that you cannot type over markers. If you come to a marker while you are overtyping, the text will all be inserted in front of the marker. When you want to stop overtyping text, press the Insert key again to turn the function on.

> **Note:** As noted above, the Insert function is turned on when you first use your system. When you turn the Insert function on or off, that mode stays in effect until you change it again, even if you turn the system off and on again.

As you work in the text entry area, the system checks that the text will fit on the installed supply and within the specified length (if you've entered a label length). If your entry is incorrect for the label you have specified, the system displays a message identifying the problem. Refer to "Creating labels with multiple lines" on page 2-7 to see those messages and for information about correcting problems you may encounter.

Deleting and clearing

There are three ways to delete text, symbols and markers. Keep in mind that deleting a marker will probably change the look of the printed label.

• Press the **Backspace key** to delete the character to the left of the cursor.

• Press the **Delete key** to delete the character on which the cursor is positioned.

• Press the **Clear key** to choose from a list of deletion options. The options are

listed in the following table. When you press Clear, the Clear window displays.

```
╔══════════════ Clear ═══════════════╗
║ All labels:                        ║▌
║ All labels, restore defaults:      ║▌
║ Current label:                     ║▌
║ Current area:                    ↓ ║▌
╠════════════════════════════════════╣
║    Press ↑↓, ENTER or ESCAPE       ║
╚════════════════════════════════════╝
```
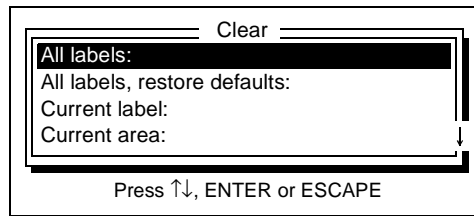
Use the ↑ or ↓ key to select an option, then press Enter. The "Are you sure" message then displays. If you decide not to clear, choose No. If you do want to clear, choose Yes.

Clear option	What it does
All labels	Clears all text and markers from the text buffer for all labels and all areas. When you return to the text entry area, the screen is blank and the cursor is positioned on the first line of the first label.
All labels, restore defaults	Clears all text and markers from the text buffer for all labels and all areas and resets Setup options to their default settings. (See "Setting system defaults" on page 1-23.) When you return to the text entry area, the screen is blank and the cursor is positioned on the first line of the first label.
Current label	Clears the text and markers from the current label only. All text and markers are deleted, along with all areas the label contains, but other labels are not erased. When you return to the text entry area, the next label in the text buffer displays or the screen is blank if there are no other labels.
Current area	Clears the text and markers from the current area of the current label only. All text and markers are deleted, but other areas are not erased. When you return to the text entry area, the contents of the next area display or the screen is blank if there are no other areas in the current label.
Memory card	Erases all stored files from a memory card. See "Clearing a memory card" on page 5-11.

Typing all capital letters

To type text in all capital letters, press the Caps Lock key. The Caps Lock indicator on the upper right side of the keyboard lights up when Caps Lock is on. All alphabetic characters will be entered as capital letters; to type a lower case letter, hold down the Shift key and press the letter key.

Press the Caps Lock key again to return to typing letters in both upper and lower case.

Using function keys

Some keyboard keys access special functions, as described in the following table.

Key	What it does
App	Displays the available applications. This is the same window that appears when you first turn on the system. This key is available only in the standard operating system (not in specialty applications).
Bar Code	Starts and ends a bar code. Hold down the Shift key and press this key to change bar code attributes such as height and density. Refer to "Working with bar codes" on page 3-28.
Date/Time	Inserts the date and/or time on the label. Hold down the Shift key and press this key to change the date/time format or change the system date or time. Refer to "Using the date and time option" on page 3-22.
Density	Lets you adjust the print density by increasing or decreasing the thermal print energy. Refer to "Changing print density/thermal energy" on page 4-10.
File	Provides access to the filing system, which lets you save, retrieve and delete files. Refer to Chapter 5, "Label Storage."
Font	Lets you choose a font. Refer to "Selecting a font" on page 3-2.
Frame	Allows you to frame a label or area and choose framing options such as frame style and line width. Refer to "Adding frames" on page 3-19.
Graphics	Lets you select a symbol to place on a label. Refer to "Adding graphics" on page 3-10.
Label Layout	Displays the standard layouts available in the system. Refer to "Using standard layouts" on page 2-11.
Label Length	Sets the label length. Refer to "Setting label length" on page 3-12.
Label Options	Allows you to select label format options to be applied to all labels in the text buffer, such as text justification and mirror printing. Refer to "Selecting label options" on page 3-15.
On Line	Puts the system on line to print data from a PC application. Refer to Chapter 6, "Using the Printer With a PC."
Print	Starts printing the labels in the text buffer. Refer to Chapter 4, "Printing."
Print Special	Gets preview image of the formatted label at any time, regardless of the Automatic preview setting in Setup.
Repeat	Lets you print multiple copies of a label. Refer to "Printing multiple copies" on page 4-9.
Sequence	Inserts a sequence on a label. Refer to "Creating sequences" on page 3-26.
Setup	Sets default settings for various options, such as pausing between labels during printing. Refer to "Setting system defaults" on page 1-23.
Status	Displays information about the system, such as the operating system version number and the installed supply width. Refer to "Checking system status" on page 1-26.

Type Options	Lets you select a variety of type options, such as underlining and italics. Refer to "Changing type options" on page 3-5.
Type Size	Changes the size of the font. Refer to "Changing type size" on page 3-3.

Typing special characters

Keys may contain from one to three characters, depending on the keyboard layout you are using. (See "Setting system defaults" on page 1-23 for information on the keyboard layout option.) The table below indicates how to type each character.

Location on key	How to type the character
Lower left corner or bottom of key (lower case character)	Press the key.
Upper left corner or top of key (upper case character)	Hold down the Shift key and press the key.
Lower right corner of key	Hold down the Alt key and press the key.
Lower part of keypad key	Press the key.
Upper part of keypad key	Press the NumLock key on the keyboard, then press the key.

Typing accented characters

Some languages have letters that require accent marks. To type them, refer to the following table. Type the accent mark first, followed by the letter you want accented. Accent marks will work for only the characters indicated below.

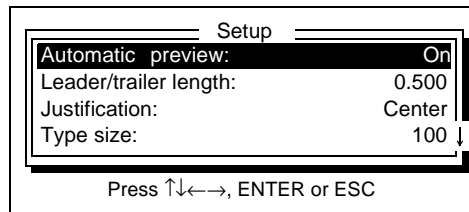| Accent mark	Example	Valid for these characters
Umlaut (diaeresis)	ö	a, e, i, o, u, A, E, I, O, U
Carat (circumflex)	â	a, e, i, o, u, A, E, I, O, U
Grave	è	a, e, i, o, u, A, E, I, O, U
Acute	é	a, e, i, o, u, A, E, I, O, U, C, N, S, Z
Tilde	ñ	a, n, o, A, N, O
Double Acute	ű	o, u, O, U

Setting system defaults

When you first turn your system on, the system automatically uses certain settings that are referred to as *system defaults*. Unless you change these settings, the defaults are used. Use the Setup key to change your system defaults. You can also use this key to set up names for tape and ribbon colors and to access the operating system upgrade routine.

> **Note:** The text buffer needs to be empty when you press the Setup key. If it is not, the "Save and clear text to use this function" message displays. Press Clear to empty the text buffer or press File and save the labels.

1) Press the Setup key.

The Setup window displays.

```
┌─────────────── Setup ───────────────┐
│ Automatic  preview:              On  │
│ Leader/trailer length:        0.500  │
│ Justification:               Center  │
│ Type size:                      100 ↓│
└──────────────────────────────────────┘
        Press ↑↓←→, ENTER or ESC
```

2) Press the ↑ or ↓ key to move the cursor to the option you want to set.

3) When the option you want to set is highlighted, press the ← or → key to scroll through the available settings. (Refer to the table below.)

4) When the settings you want to use are displayed, press Enter.

The Setup options are described in the table on the following pages.

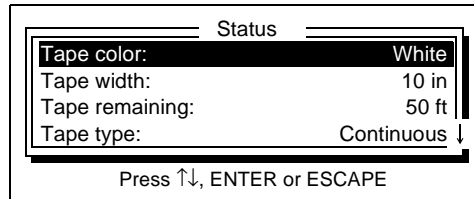| Setup option	What it does
Automatic preview	Allows you to turn the dynamic preview feature On or Off. The default setting is On. Dynamic preview allows the system to update your label as you type from the keyboard, typically when you pause. Sometimes this slows down your keyboard response time. If you turn Off dynamic updating, you can increase the keyboard response speed; that is, it will take less time between when you type a keystroke in the text area and when those characters appear on the screen. You can still get a preview of the formatted label at any time by pressing the Print Special key. When you press Print Special, you'll see the "Please wait" message and the rotating spinner that indicates that the system is working. Using the Print Special key does not change the Automatic preview setting in Setup. You can also press the Print Special key to redraw the preview when the Automatic preview setting is set to On. This may take a few seconds to update. (If, however, you press any other key while the system is generating the preview, the preview is cancelled and you may notice a slight time lag before new characters appear in the text entry area.) **Note:** Automatic preview functions slightly differently in the resident applications (when you are not running Freeform). Be sure to consult the appropriate documentation for more information.
Leader/trailer length	Sets the length of the leader and trailer, which is the amount of blank space inserted at the beginning and end of a label. The unit of measure is the setting selected for the Length units option (see below). Valid values are .125 to 2 inches (4 to 50 mm).
Justification	Sets the default justification for text and graphics. Choose Center (default), Left or Right. You can override this setting at any time by using the Label Options key. (Refer to "Selecting label options" on page 3-15.) When you turn the system off and on, the setting selected here is used.

Type size	Sets the type size that is used when the system is first turned on. All text automatically prints in this type size, unless you change it temporarily. (See "Changing type size" on page 3-3.) When you turn the system off and on, the setting selected here is used. The unit of measure is the Type size units (see below). Valid values are as follows:
	
	    0.08 - 8.0 inches (default = 1.0)
	    8 - 800 points (default = 100)
	    2 - 203 mm (default = 25)
	
	If you change the Type size units setting, the values shown for the Type size field automatically change to the new unit values.

Type size units	Sets the unit of measure for displaying type size in the Type Size window. Choose Inches (default), Points or mm. When you change this unit, the default Type size value (see above) changes to the new unit values.

Length units	Sets the unit of measure for displaying label length and other length values (such as amount of tape remaining). Choose Inches (default) or mm.
Pause between labels	Controls whether or not the system pauses between labels when printing multiple labels. Choose Off (default) or On. If you turn this option on, a message displays after a label prints and asks you to press a key to continue.
Number of copies	Sets the default number of copies to print for all labels. Enter a value from 1 (default) to 99. You can change this value for a specific label by pressing the Repeat key and entering a different value. Refer to "Printing multiple copies" on page 4-9.
Font	Specifies which font is used when the system is first turned on. All text automatically prints in this font, unless you change it temporarily. (See "Selecting a font" on page 3-2.) When you turn the system off and on, the font selected here is used.
Language	Sets the language in which menus, prompts and messages are displayed. Choose English (default), French, Spanish, German, Dutch, Danish, Italian, Swedish, Portuguese, Norwegian or Finnish. The new selection takes effect as soon as you move the cursor off the Language option or close the Setup window.
Keyboard style	Sets the type of keyboard layout you want to use: QWERTY, AZERTY or QWERTZ.
Ribbon color names	Allows you to change the names of ribbon colors you entered when you installed a ribbon color the system didn't recognize as described in "Changing supplies" on page 4-7. Select the color name you want to change and type a new name. (You cannot change the names of the colors the system recognizes automatically.) When you install a ribbon that you previously assigned that name, the new color name will be used. When the system is upgraded to a new operating system that includes new colors, the system names overwrite the color names you entered.
Tape color names	Allows you to change the names of tape colors you entered when you installed a tape color the system didn't recognize as described in "Changing supplies" on page 4-7. Select the color name you want to change and type a new name. (You cannot change the names of the colors the system recognizes automatically.) When you install a tape that you previously assigned that name, the new color name will be used. When the system is upgraded to a new operating system that includes new colors, the system names overwrite the color names you entered.
Upgrade	Allows you to upgrade the operating system, either from a PC or from a PCMCIA card. Refer to "Checking system status" on page 1-26 for information about checking your current operating version or board version.

Checking system status

Use the Status key to check certain supply and system information. These values are displayed here for information only and cannot be changed in this window.

1) Press the Status key.

The Status window displays.

```
┌──────────── Status ────────────┐
│ Tape color:              White  │
│ Tape width:             10 in   │
│ Tape remaining:          50 ft  │
│ Tape type:         Continuous ↓ │
└─────────────────────────────────┘
     Press ↑↓, ENTER or ESCAPE
```

2) Press the ↑ or ↓ key to move through the options listed below and view their current settings.

Status option	What it does
Tape color	Indicates the color of the installed tape.
Tape width	Indicates the width of the installed tape. The unit of measure is the Length units setting selected in the Setup window. (Refer to "Setting system defaults" on page 1-23.)
Tape remaining	Indicates the amount of tape remaining on the installed supply. The unit of measure is the Length units setting selected in the Setup window. (Refer to "Setting system defaults" on page 1-23.)
Tape type	Indicates the type of tape that is installed (continuous or die-cut).
Ribbon color (1-4)	Indicates the color of the installed ribbon. Paneled ribbon colors are listed in order. For monochrome ribbons, one color is listed and the remaining values are None.
Ribbon width	Indicates the width of the installed ribbon supply. The unit of measure is the Length units setting selected in the Setup window. (Refer to "Setting system defaults" on page 1-23.)
OS version	Indicates the current operating system version number.
Hardware version	Identifies the current circuit board revision ID number. 2 - indicates the original PowerMark memory configuration: 2M RAM 3 - indicates the enhanced memory configuration: 4M RAM This setting affects the maximum length you can designate for a label, which in turn affects other label options. See "Setting label length" on page 3-12 for more information.

3) Press Enter to close the Status window.

Chapter 2: Label Creation

This chapter starts by guiding you through a tutorial for creating a simple label. You'll see how easy it is to design your own labels and how fast it is to use the tools your system provides to create labels based on existing designs.

After the brief tutorial, this chapter also describes the different label creation methods and provides information on using the standard layouts available through the Label Layout key. Topics include:

Creating a basic label, beginning on page 2-2, a short tutorial that helps you create a basic label.

Label creation options, beginning on page 2-5, describing the three methods you can use to create labels.

Adding lines, labels and areas to freeform labels, beginning on page 2-7, with sections on creating labels with multiple lines, creating multiple labels, and creating labels with multiple areas.

Using standard layouts, beginning on page 2-11, which guides you through the basics of using specialty applications like the Signs applications, the PipeMarkers application, and the Hazardous Waste Labels application.

Creating a basic label

This section gets you off to a great start with your system by leading you through the creation of a basic label. You'll have a chance to see how some key system features work and to try out options you'll use again and again.
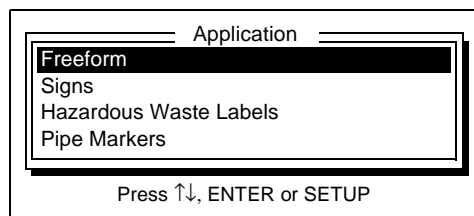
After you have unpacked and set up your system and installed some ribbon and tape, your system is ready to go to work. Refer to Chapter 1, "System Basics," if you haven't yet done these tasks.

Follow the steps in this section to type and print the label shown below. Since this is just an exercise, use any size tape you choose.

Emergency Number
Building security: ext 524 (24 hours)

---

1) **Turn the labeling system on.**

   After the introductory screen disappears, the Application window displays:

   ```
   ════════ Application ════════
   Freeform
   Signs
   Hazardous Waste Labels
   Pipe Markers

   Press ↑↓, ENTER or SETUP
   ```

   See "Label creation options" on page 2-5 for more information about the specialty applications.

2) **Press the ↑ or ↓ key to move the cursor to the Freeform option. Then press the Enter key.**

   The text entry area is blank, and the blinking cursor appears to show your current position in the window. Notice that the navigation area indicates that you're in label 1, area 1 and line 1.

   At this point, you could choose a standard layout by pressing the Label Layout key. The Label Layout window lets you select from pre-defined layouts, so all you have to do is enter text and print. See "Using standard layouts" on page 2-11 and the applications' users guides for details.
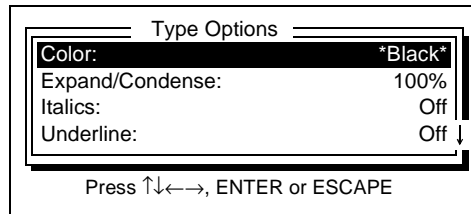
3) Type this text: Emergency Number. Then press Enter.

If you make a mistake, use the Backspace key or the Delete key to erase characters. After you press Enter, the cursor moves down one line in the display to indicate that you're starting a new line on the label.

4) Type Building security: and press the space bar.

5) To underline the next text, press the Type Options key.

This key is one of the labeled function keys at the top of the labeling system keyboard. The Type Options window appears in the preview area of the screenPress the ↓ key to move the cursor to the Underline option.

```
════════ Type Options ════════
Color:                  *Black*
Expand/Condense:          100%
Italics:                    Off
Underline:                  Off ↓

     Press ↑↓←→, ENTER or ESCAPE
```

6) Press the → key to display "On" in the window.   Then press Enter to return to the text entry area.

Notice that a special character appears in the text entry area (▓). This is called a *change marker*, and it indicates where you have turned the underlining on. (Refer to "Markers" on page 1-17 for information.)

7) Type ext 524 and press the space bar.

Depending on the supplies you have installed, the Text too long message may appear as you are typing long lines like this one. If this happens, you can press Enter to start a new line, and continue to type. (See "How installed ribbons affect label composition" on page 2-6 for more information.) Alternatively, you can change the type size or font to accommodate the text you want to enter in the space you have. See "Changing the look of the text" on page 3-2 for that information.

8) Now turn underlining off. To do this, press the Type Options key again. Move the cursor to the Underline option, and change the setting to "Off." Press Enter.

Underlining is now turned off, so that additional text you type will not be underlined. Another change marker appears in the text entry area to indicate where underlining was turned off.

9) Type (24 hours).

10) Press the Print key located in the bottom left corner of the keyboard.

The printer displays the Composing message, and depending on the supplies you have installed, you may see the Selecting ribbon message or others as the print process proceeds. After your sign prints, you'll see the text area with your current

entry. You can make a new label by pressing New Label, or you can clear the current label by pressing the Clear key and following the prompts. You can also save your label to a file. See "Saving files" on page 5-4 for information.

Label creation options

Your system offers three basic label creation methods:

- **Freeform**—Freeform labels are labels you create on your own, without using any predetermined formatting or layout. To create a freeform label, choose the Freeform option in the Application window (as you did in the exercise "Creating a basic label" on page 2-2).

  When you work on freeform labels, you can set up any combination of lines and areas that you need as described in the next section in this chapter. You can also use all of the options detailed in Chapter 3, "Label Design," to make your labels look exactly as you want them.

- **Freeform using standard layouts**—Another way of creating freeform labels is to use your system's standard layouts. The Label Layout key provides a quick way of creating labels using layouts that are already set up for you. When you press this key, you can choose from many different, attractive layouts that are predefined. All you need to do is enter your text and print. See **"Using standard layouts" on page 2-11.**

- **Specialty applications**—The application window on your system lists other options in addition to Freeform. These may include Signs, Hazardous Waste Labels, Pipe Markers and others. These options are referred to as *specialty applications*, and they allow you to quickly produce labels for a specific use. For example, the Signs application helps you create many different types of signs.

  The advantage of specialty applications is that they lead you through the creation of an item step-by-step. For example, the Signs application asks you to choose the sign's content (such as text and graphics), the sign's size, text options and so on. Selection windows appear one after another, and all you need to do is make a choice and continue with the next step—right up to printing the sign. For more information, see "Using standard layouts" on page 2-11.

How installed ribbons affect label composition

The system uses the ribbon supplies installed in your system during label composition to determine the rules you must follow for selecting colors and to determine the maximum label length supported.

For example, when you have installed a **paneled ribbon**, the length of the panels on the ribbon determine the maximum length of the label you are creating. But when you have installed a **continuous monochrome ribbon**, the system can't tell whether you are planning to create a single color-job, or whether you are planning to swap in various ribbons to create a multi-color job.

Because the maximum supported label length is substantially different in these two situations, the PowerMark system makes some assumptions according to the installed ribbon.

When the system detects a continuous color monochrome ribbon installed, it assumes you are creating a single color label, *until* you select a second color within the same label. At that point, the system checks the label length to see if your label text already exceeds the supported length. If it is too long, it displays a message and you need to correct it. See "Correcting multiple line problems" on page 2-7 for instructions. If the label length is within the supported length when you select the second color, no message is displayed and you can continue. But other changes besides color can affect the length of the label as well. For example, changing the font size could increase the length of the text, or adding an area. In those cases, the system displays a message informing you, and you must correct the label in order to print it.

When the system detects a paneled ribbon installed, it automatically restricts the length of the label to the panel length of the installed ribbon. This doesn't mean you can't print the label using a combination of continuous color monochrome ribbons. See "Changing supplies" on page 4-7 for instructions. It does mean, however, that while you are composing the label, the maximum length is limited. (Note that your colors are not restricted, however. The entire color palette is available with a paneled ribbon. See "Changing type options" on page 3-5 for more information.)

For more detailed information, see "Supply ribbon" on page 4-3.

Adding lines, labels and areas to freeform labels

This section explains:

*   How to add lines, labels and areas when you are creating a freeform label

*   How to create multple line labels and how to correct multiple line design issues

*   How to create labels with multiple areas

Creating labels with multiple lines

You'll often want to create labels that contain more than one line of text:

> **To start a new line of text as you type a label**, press the Enter key. The cursor moves down one line, and you can begin typing the text for the new line.

> **To split text in a line you've already typed**, use the arrow keys to move the cursor to where the new line should begin. Press Enter, and all text following the cursor moves down one line.

> **To insert a blank line between two lines you've already typed**, move the cursor to the end of the first line and press Enter. A blank line appears between the two lines, and all text following the blank line moves down one line.

You can enter as many as 42 lines on a label, depending on the width of the tape, the type size, the line spacing and/or the amount of space in the area (in a standard layout).

Correcting multiple line problems

As you type, the system calculates how many lines will fit on the installed supply and within the specified length (if you previously entered a label length). If you have entered too many lines, the system displays one of several messages describing the error:

*   If you start a new line, and that line will not fit on the tape you have installed, the following message displays. This message also displays if you enter more lines than will fit on one label (the maximum is 42).

> Type too large or too many lines

- If the text you enter won't fit in the specified length, this message displays:

> Text too long

To fix the above problems, you can:

- Select a smaller type size. See "Changing type size" on page 3-3.

- Change the line spacing to Tight as described in "Changing the look of the label" on page 3-12.

- Press the New Area key to create a new area on the current label.

- Use fewer lines on the label.

If you have a **continuous color monochrome ribbon** installed and you then add a second color to the label, if your existing text already exceeds the maximum for multi-color output, you'll see the "Text too long message." shown below:

> Text too long for more than one color.
> Press any key to continue.
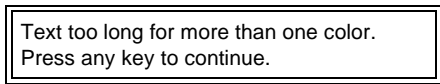
The maximum multi-color output is:

23.6 inches if your system has been upgraded with additional memory

14 inches if it has the standard memory allotment

You can find out whether your system has additional memory by checking the Hardware version on the Status window. See "Checking system status" on page 1-26 for instructions.

When you press any key to continue, the message disappears. To fix this problem, you can either reduce the length of the text, or install a paneled ribbon. For information about paneled ribbons, see "Selecting ribbon type" on page 4-4.

Entering multiple labels

Use the New Label key to enter many labels at a time, then print them all at once. As you enter labels, just press New Label when you want to start a new one. Note that:

- The cursor must be positioned to the right of the last character on the label when you press New Label. After you press New Label, the cursor is positioned in the first line of the new label.

- When you start a new label, the change markers from the previous label are still in effect. For example, if you chose a new type size on the previous label, that size applies on the new label. Also remember that any label options you choose, such as changing the justification, affect every label in the text buffer.

- To move between the labels in the text buffer, use the Next Label and Prev Label keys. The area and label numbers in the navigation area are updated as you move between labels.

Creating labels with multiple areas

Sometimes you need to create labels that contain more than one area. For example, you may need a label that contains a warning message in large type next to a framed explanation in smaller type as shown below.

Area 1 →

SECURITY CLEARANCE REQUIRED

Insert identification card into reader, text side up. If entry is approved, gates will open automatically within five seconds.

← Area 2
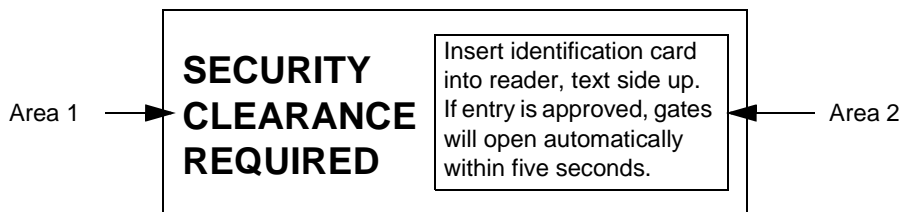
To do this, press the New Area key where you want to start the new area.

After you press the New Area key, the cursor is positioned on the first line of the new area. The area line in the navigation area tells you which area you are currently working in. The other areas you created are still in the text buffer; you can move between them by pressing the Next Area and Prev Area keys.

When you start a new area, the change markers from the previous area are still in effect. For example, if you chose a new type size in the previous area, that size applies in the new area. Also remember that any label options you choose, such as changing the justification, affect every label and area in the text buffer.

Note: If you add a second color in a new area (when you have a continuous color monochrome ribbon installed), and if the existing text is already longer than the supported maximum label length, you'll see the message shown here.

Text too long for more than one color.
Press any key to continue.

See "Correcting multiple line problems" on page 2-7 for more information.

• When you print labels that contain multiple areas, the system automatically spaces the areas so the text doesn't run together.

> **Note:** Your system comes with twelve commonly-used standard label layouts that allow you to quickly create labels with multiple areas. One advantage of using the standard layouts is that when you move to a new area, you can change some label options for that area, which gives you even more flexibility in your label designs. For more information, see "Using standard layouts" on page 2-11.

Using standard layouts

Your system provides a set of standard label layouts that you can use to create advanced designs such as labels with many areas. There are 12 of these layouts available, and they are accessed with the Label Layout key. The layouts are set up using predefined formats to help you produce labels as quickly as possible. The system takes care of positioning label elements, such as text, graphics and bar codes, and sets up multiple lines and areas where necessary.

This section takes you through entering text and using the label options in a standard layout. First, here are some points to keep in mind when working with standard layouts:

- The text entry area, navigation area and preview area work just as they do when you are creating any other type of freeform label. For example, you can use the Next Area and Prev Area keys to move between areas. You can also press Tab to move to the navigation area and enter a different area number.

- You can use one label layout at a time in the text buffer, but you can create multiple labels using that layout. Just press the New Label key to begin a new label. Note that area settings for the new label are the ones from the previous area, not from the corresponding area on the previous label.

- When the cursor is in the text entry area, you can press the Escape key to redisplay the Label Layout window and select a new layout. If you choose a new layout, all text in the text buffer is deleted.

- Layouts use a predefined amount of vertical space, but the horizontal width of an area adjusts to encompass the longest line of text you enter. You can press the Label Length key to choose a specific length for the label. If you do so, every horizontal area in the layout will be divided evenly to use up the length you selected. For example, if the layout contains two side-by-side areas, each area will take up half of the length you selected. Refer to "Setting label length" on page 3-12 for more information.

- When you select a layout, the system checks that the current type size will fit in the layout. If the type size won't fit, the following message displays and you need to reset the size. Refer to "Changing type size" on page 3-3 for more information.

> Type too large. Try a type size of XX in.

- You can save and retrieve labels that use standard layouts, just as you can any other label. Refer to Chapter 5, "Label Storage."

Entering text in a standard layout

Follow these steps to create labels using a standard layout:

1) Press the Label Layout key.

The Label Layout window displays.
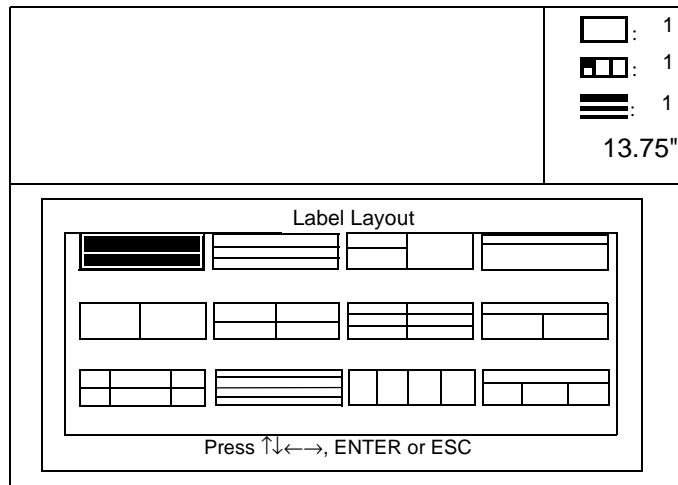
2) Press the ↑ or ↓ and ← or → keys to move the cursor to the representation of the layout you want to use.

3) When the layout you want to use is highlighted, press Enter.

4) Type your label information and select label options for the first area in the layout.

See the "Using Label Options in standard layouts" section that follows this section.

5) Press the New Area key to move to the next area in the layout. Enter the information for that area. Continue to do this until you've entered information for all areas in the layout.

The navigation area updates to indicate which area you're working in.

6) To create another label using the same standard layout, press the New Label key and repeat this procedure.

Using label options in standard layouts

When you use a standard layout, you can apply many label options to specific areas of any label. This differs from entering a typical freeform label, where label options apply to *all* labels and areas in the text buffer. You can select justification, text position, text direction, line spacing and baseline settings for specific areas; you cannot set the mirror option for specific areas. To see examples of each option, refer to "Selecting label options" on page 3-15.

To select label options for a specific area in a standard layout:

1) Place the cursor in the standard layout area in which you want to make a change. Press the Label Options key.

The Label Options window displays.

```
┌══════ Label Options ══════┐
│ Justification:        Center │
│ Text position:        Middle │
│ Text direction:    Along tape │
│ Line spacing:        Normal ↓ │
└───────────────────────────┘

   Press ↑↓←→, ENTER or ESC
```

2) Press the ↑ or ↓ key to move the cursor to the option you want to change.

3) When the option you want to set is highlighted, press the ← or → key to scroll through the available option settings.

Label option	What to do
Justification	Choose Left, Center or Right. The default justification value is set through the Setup options as described in "Setting system defaults" on page 1-23.
Text position	Choose Top, Middle (default) or Bottom to control whether the text is vertically centered in the top third, middle third or bottom third of the label.
Text direction	Choose Along tape (default), Up tape or Down tape.
Line spacing	Choose Normal (default), Tight or Loose. The Loose setting may provide better results when printing accented characters.
Baseline	Choose Center (default) or Fixed.

4) Repeat these steps if you want to choose settings for other label options.

5) Press Enter when all of the settings you want to use are displayed.

The Make Change window displays. Press the ↑ or ↓ key to highlight the option you want to use (see the table below). Then press the Enter key.

```
┌══════ Make Change ══════┐
│ At beginning of text      │
│ At beginning of area      │
└───────────────────────────┘

   Press ↑↓, ENTER or ESCAPE
```

Make Change option	What it does
At beginning of text	Changes the option for all text in the text buffer.
At beginning of area	Changes the option for all text starting with the current area.

After making a selection, you return to the text entry area. If you applied the option to the beginning of the area, a change marker representing the option change appears in the text entry area (▦). Repeat these steps when you want to reset an option.

Note: The only label option you cannot set for an individual area is the Mirror option. If you change this option within a standard layout, you'll see a message stating that the change will affect all labels in the text buffer.

Using specialty applications

Your system is equipped with several *specialty applications* that allow you to quickly produce labels for a specific use. The Signs, Hazardous Waste Labels and Pipe Markers applications are standard on every system. These specialty applications lead you through the creation of an item, such as a sign, step-by-step.

> **Note:** All specialty applications work similarly, but you should consult each application's specific documentation for detailed instruction, as there are differences you will need to know.

The following information is consistent for all specialty applications:

- The label number/step number indicator in the top right corner of the display shows which label in the text buffer you are working on and which step in the process you are completing. You cannot tab to this area and choose a different label or step, as you can in the standard system display.

- After you enter the required information or make a selection, press the Next Step key to continue the process.

- To return to a previous step in the process, press the Prev Step key.

- As in the standard system display the help line below each window lists the keys you can use at any point in the process, and the preview area gives you an idea of what a selection will look like when printed.

To use a specialty application, follow these basic steps:

1) **Press the App key located on the far right side of the labeling system keyboard.**

   The Application window displays and looks similar to the example below.

```
┌══════════ Application ══════════┐
│┌───────────────────────────────┐│
││Freeform                       ││
││Signs                          ││
││Hazardous Waste Labels         ││
││Pipe Markers                   ││
│└───────────────────────────────┘│
│                                 │
│      Press ↑↓, ENTER or SETUP   │
└─────────────────────────────────┘
```
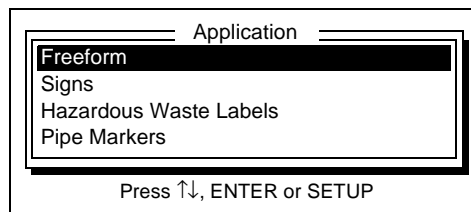
2) **Press the ↑ or ↓ key to move the cursor to the application you want to use. Press Enter.**

   The application opens, and its title displays in the upper left corner of the window. The system begins displaying a series of screens in which you need to select options for the sign or label you want to create.

Chapter 3: Label Design

This chapter describes a variety of label design options you can use to design your label. It contains:

Changing the look of the text, beginning on page 3-2, with instructions for changing fonts and font sizes, and for using type options like reverse text and background color.

Adding graphics, beginning on page 3-10, with instructions for adding symbols from the Symbol Reference included with this User's Guide and in some cases, choosing colors for the symbols.

Changing the look of the label, beginning on page 3-12, with instructions for setting label length, selecting label options like text position and justification, text direction, and mirror imaging, and adding frames and borders to your labels.

Using the date and time option, beginning on page 3-22, which tells you how to set and format the date and time and enter it on a label.

Creating sequences, beginning on page 3-26, which you can use to create a seriees of labels while typing the information only once.

Working with bar codes, beginning on page 3-28, with instructions for selecting, choosing attributes, and entering bar codes on your labels.

Changing the look of the text

Use the procedures in this section to select text options, such as the font, color and type options.

Selecting a font

Your system allows you to create labels that use a variety of type styles (which are usually referred to as *fonts*) and to combine type styles on a label.

> ## Authorized Personnel Only
>
> *Photo identification required*

![note icon] **Note:** When you first work on a label, the default font selected through the Setup window is automatically used (unless you choose a different font). You can change the default font as described in "Setting system defaults" on page 1-23.

To change the font:

1) **From the text area of a label, press the Font key at the point in the text where you want the font to take effect. If you have already typed the text, first move the cursor to the first letter you want printed in the font you are going to select.**

   The Font window displays the available type styles:
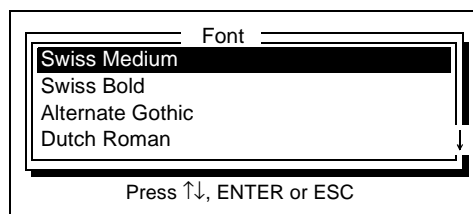
   ```
   ════════ Font ════════
   Swiss Medium
   Swiss Bold
   Alternate Gothic
   Dutch Roman                      ↓
   ─────────────────────────
      Press ↑↓, ENTER or ESC
   ```
   Your printer may include these or other fonts

2) **Press the ↑ or ↓ key to highlight the name of the font you want to use. Then press Enter.**

   The Make Change window displays:
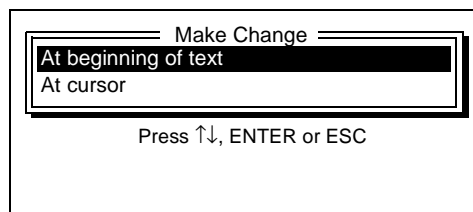
   ```
   ════ Make Change ════
   At beginning of text
   At cursor
   ─────────────────────────
      Press ↑↓, ENTER or ESC
   ```

3) Press the ↑ or ↓ key to highlight the option you want to use. Then press Enter.

Make Change option	What it does
At beginning of text	Changes the font for all text in the text buffer. However, if you've already changed the font within the text, that font will remain in effect; this change will apply only to the text *preceding* the first font change marker.
At cursor	Changes the font for all text starting at the current cursor position.

A change marker representing the font change appears in the text entry area (▓).

> **Note:** Repeat Steps 1-3 to change the font again.

Changing type size

In addition to changing the type style (font) on a label, you can also change the type size. You can use a variety of type sizes on a single label:

> **NOTICE**
> This office will close at noon
> on Friday, May 15.

Each font is available in a range of type sizes—the larger the size, the taller the letters. Type size can be measured in points, inches or millimeters. To change the unit of measure, use the Setup key as described in "Setting system defaults" on page 1-23.

> **Note:** When you first work on a label, the default type size selected through the Setup window is automatically used (unless you choose a different size). You can change the default type size as described in "Setting system defaults" on page 1-23.

To change the type size:

1) Press the Type Size key where you want the size to take effect. If you have already typed the text, first move the cursor to the first letter you want printed in the size you are going to select.

The Type Size window displays the range of type sizes you can use:

> Type Size
> Size (.08 - 8.0 in.):   0.00
>
> Type values, press ENTER or ESCAPE

2) Type a number within the valid size range.

Note the following about type size:

- The type size you can use depends on the width of the supply that's currently installed. For example, you won't be able to select an 8-inch size if the supply is only 4 inches wide.

- If you've already typed text and you select a type size that would make the text not fit on the installed supply, an error message displays.

- Above certain type sizes for each supply width, the system will print the text in all capital letters. If this occurs, you'll see a "Caps only" message.

3) Press Enter.

The Make Change window appears:
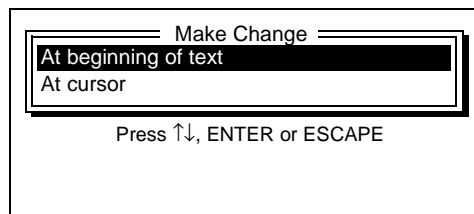
```
════════ Make Change ════════
At beginning of text
At cursor


      Press ↑↓, ENTER or ESCAPE
```

4) Press the ↑ or ↓ key to highlight the option you want to use. Then press Enter.

Make Change option	What it does
At beginning of text	Changes the type size for all text in the text buffer. However, if you've already changed the size within the text, that size will remain in effect; this change will apply only to the text *preceding* the first type size change marker.
At cursor	Changes the type size for all text starting at the current cursor position.

A change marker representing the type size change appears in the text entry area (▓).

> **Note:** Repeat these steps when you want to change the type size again.

Changing type options

Your system gives you several different ways of changing the look of certain text on your labels. Using the Type Options key, you can easily select one of the following options or combine several of them:

- **Color**—To change text color.

- **Expand/condense text**—To stretch or compress text horizontally, as shown below. (The height of the text stays the same.)

Expanded text	Condensed text

- **Italics or Underline**

Italicized text	<u>Underlined text</u>
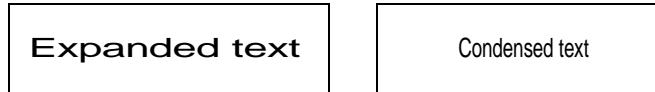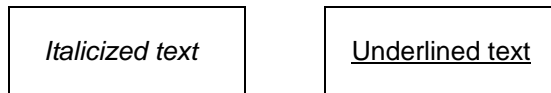
- **Vertical print**—To rotate all text to print vertically on the tape as shown below.

Vertical text
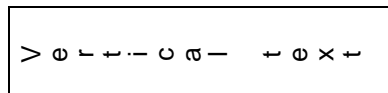
- **Character position**—To print text in subscript and superscript positions.

Subscript: H_2O	Superscript: 10^4
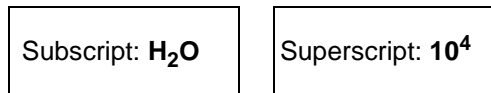
- **Reverse color**—To print the label reversing the background color and the text color. For example:

Reverse Off:

Authorized Personnel Only

Reverse On:

Authorized Personnel Only

Some points to note about Reverse:

• If there are multiple text colors in the area to be reversed, the system uses the first text color it finds in the area as the reverse color. Text in other colors remains in the original color(s) and is not reversed.

• The Reverse option does not take effect at your cursor position; it will apply to the entire area in which you are working when you turn the setting on. If there are no additional areas on the label, Reverse applies to the entire label.

• Once Reverse is set to On, it remains in effect until you turn it Off again. If you create new areas without first turning Reverse Off, those will print in reverse as well. Off is the default setting.

Also note the following **restrictions** for using the Reverse color option:

• You may not use Reverse if you have set a Background color option for the label, and vice-versa.

• You may not use Reverse if the label length or existing text already exceeds the maximum supported length for multi-color output (which is 23.6 inches if your system has added memory, and 14 inches if it does not. To find out whether your system has added memory, see "Checking system status" on page 1-26). This restriction applies regardless of the number of colors on your label.

• You may not use Reverse if the area you have selected or the label contains multiple text colors. (You'll see a message informing you that you can, however, use Background color when you are using multiple text colors.)

• You may not use Reverse if you have a monochrome ribbon installed, you pick a second color for the label, and the amount of existing text already exceeds the maximum for multi-color output (which is 23.6 inches if your system has added memory, and 14 inches if it does not. To find out whether your system has added memory, see "Checking system status" on page 1-26).

• You may not use Reverse if you have a monochrome ribbon installed, you pick a second color for the label, and a label length longer than the maximum for multi-color printing has already been set (which is 23.6 inches if your system has added memory, and 14 inches if it does not. To find out whether your system has added memory, see "Checking system status" on page 1-26).

• **Background color**—To print a background color for the current area. The settings remain the same regardless of what type ribbon you have installed, and the entire color palette is available. (If you set both the text and the background to the same color, you will create a Reverse effect, the same as if you had set the Reverse option On, which is described above.)

Some points to note about Background color:

- The Background option does not take effect at your cursor position. It will apply to the entire area in which you are working when you turn the setting on.

- If there are no additional areas on the label, Background applies to the entire label.

- Once Background is set to On, it remains in effect until you turn it Off again. If you create new areas without first turning Background Off, those will print in background style as well. Off is the default setting.
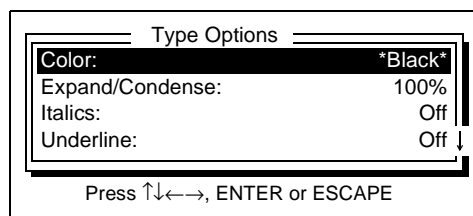
Also note the following **restrictions** for using the Background color option:

- You may not use Background if you have set a Reverse color option for the label, and vice-versa.

- You may not use Background if the label length or existing text already exceeds the maximum supported length for multi-color output (which is 23.6 inches if your system has added memory, and 14 inches if it does not. To find out whether your system has added memory, see "Checking system status" on page 1-26). This restriction applies regardless of the number of colors on your label.

- You may not use Background if you have a monochrome ribbon installed, you pick a second color for the label, and the amount of existing text already exceeds the maximum for multi-color output (which is 23.6 inches if your system has added memory, and 14 inches if it does not. To find out whether your system has added memory, see "Checking system status" on page 1-26).

- You may not use Background if you have a monochrome ribbon installed, you pick a second color for the label, and a label length longer than the maximum for multi-color printing has already been set (which is 23.6 inches if your system has added memory, and 14 inches if it does not. To find out whether your system has added memory, see "Checking system status" on page 1-26).

To change one or more type options:

1) Press the Type Options key where you want the option(s) to take effect.

The Type Options window displays.

```
┌──────── Type Options ────────┐
│ Color:                 *Black* │
│ Expand/Condense:         100%  │
│ Italics:                  Off  │
│ Underline:                Off ↓│
└───────────────────────────────┘
     Press ↑↓←→, ENTER or ESCAPE
```

2) Press the ↑ or ↓ key to move the cursor to the option you want to set.

3) **When the option you want to set is highlighted, press the ← or → key to scroll through the available option settings.**

Type option	What to do
Color	Select a color for the text. The default is the first color value stored in the memory cell of the installed ribbon, or black if no ribbon is installed.
	• If either a paneled ribbon or a continuous color monochrome ribbon is installed, you can choose from the entire color palette. The colors available on that ribbon are listed first, and are identified by asterisks around the color name, as shown on the Type Options screen example above. When you print, you will be prompted when you need to install a different color ribbon. You can cycle through the color list.
	• If a continous color monochrome ribbon is installed, the color of the installed ribbon is displayed but you cannot change the color setting.
	• If no ribbon is installed, when you turned on the system you were asked to choose whether you wanted to create labels based on a paneled or monochrome ribbon type. If you chose Paneled, you also chose the paneled ribbon colors you wanted to use; those colors are available for selection.
	For more information, see "How installed ribbons affect label composition" on page 2-6.
Expand/Condense	Choose a number. Text can be expanded from 110% to 200% in 10% increments; the larger the number, the more the text is expanded. Text can be condensed from 90% to 50% in 5% increments; the smaller the number, the more the text is condensed. You cannot change this value if the Condense to fit option is on *and* a length for the label has been entered. Also note that expanding the text may cause the label length to exceed the maximum supported, and a message will display.
Italics	Choose On or Off (default).
Underline	Choose On or Off (default).
Vertical print	Choose On or Off (default). If there are multiple lines of text, subsequent lines print to the left of the first line; in other words, they are printed from right to left when you hold the tape vertically. If you want the lines to print from left to right, enter the lines in reverse order starting with the line you want to appear on the left when you hold the tape vertically.
Character position	Choose Normal (default), Subscript or Superscript.

Reverse	Choose On or Off. Off is the Default. On prints the text in the current area in reverse, using the former background color for the text and the former text color for the background.
Background color	Choose a background color for the selected area on the label, or for the entire label if the label contains one area. The available colors are described in the Color option at the beginning of this table. Choose Off (default) if you don't want a background color used. To print the text in reverse as shown on page 3-6, select the same colors for the text and background.

4) Repeat steps 2 and 3 if you want to choose settings for other type options.

5) Press Enter when all of the settings you want to use are displayed.

A change marker representing the option change(s) appears in the text entry area
(▦).

Note: Repeat Steps 1-5 when you want to reset an option.

Adding graphics

The keyboard on your system contains many commonly-used symbols that you can include on labels, such as ↓, & and $. You can also use a variety of other symbols from a range of categories by using the Graphics key. The Symbol Reference section included with this manual contains a complete list of symbol categories and numbers.

> **Note:** The Italics and Expand/Condense options are ignored for symbols, although symbols may be underlined.

To insert a graphics symbol on a label:

1) Move the cursor to where you want the symbol to print on the label. Press the Graphics key.

The Symbol window displays.

```
══════ Symbol ══════
Category:      Hazard Warning Diamonds
Symbol:                            10
Color 1:                        Black
Color 2:                         None
```

Type values, ↑↓←→, ENTER or ESCAPE

As you scroll through the list, the symbols are displayed in the preview area.

2) Press the ↑ or ↓ key to move the cursor to the Category option.

3) Press the ← or → key to scroll through the available option settings until you've displayed the name of the category you want to use.

4) Press the ↑ or ↓ key to move the cursor to the Symbol option.

5) Press the ← or → key to scroll through the available symbols until you've displayed the number of the one you want to use, or type the symbol number if you know it.

The Symbol Reference section contains a complete list of symbol categories and numbers.

6) Press the ↑ or ↓ key to move the cursor to the Color 1 or Color 2 option.

7) Press the ← or → key to scroll through the available colors until you've displayed the name of the one you want to use for the symbol.

The entire color palette is available to you here, despite the ribbon type installed. However, the system uses the ribbon supplies installed in your system during label

composition to determine the rules you must follow for selecting colors (and also to determine the maximum label length supported). The system reacts to your color choices depending on the type of ribbon installed. See "How installed ribbons affect label composition" on page 2-6 for details.

Some symbols consist of multiple parts for which you can select different colors. The Color 1 and the Color 2 (and possible Color 3, 4, and so on) options let you select the color for individual parts of the symbol. For symbols that are not multiple-part symbols, the color listed in the Color 1 option is the color of the entire symbol, and the Color 2 option indicates None. For multi-part symbols, you can also select a value for Color 2. When you move the cursor to the Color 1 or Color 2 option for multi-part symbols, the preview area shows which part of the symbol will print in the selected color.

The default color is the first (or only) color defined in the currently installed ribbon (or the first color in the supply being used to create the label). Black is the default if no ribbon is currently installed.

8) Press Enter when all of the settings you want to use are displayed.

This marker representing the symbol appears in the text entry area:

Changing the look of the label

You can change the look of a label by changing the length or condensing the contents, by adding frames, and by setting options such as justification, text position and direction, line spacing, and so on.

Setting label length

You use the Label Length key to set length. (The lengths you may choose depend on your system memory and the ribbon type you have installed. Information on those subjects follows below.)

The Label Length key shows you two options that help you to automatically create labels in just the size you need:

- Length—The Length option lets you specify the exact length of the labels you want to create. This is useful when you need labels to fit in a fixed space, such as a slot on a shelf. If no label length is entered, the system uses as much tape as it needs to print the contents of a label.

- Condense to fit—If you enter a label length, you can also choose to have the system automatically condense the content to fit in that length. If you enter more content for a label than will fit in the selected length, the content is condensed. If you do not use the condense to fit option and you enter more content than will fit in the selected length, an error message displays.

When you set a label length, that length is used for *each* label in the text buffer.

> **Note:** The Length option can be changed at any time, whether or not there is text in the text buffer, as long as the Condense to fit option is off. However, the Condense to fit option cannot be changed once you've typed text in the text buffer.

As mentioned above, the maximum length you can designate for a label depends on your **system memory** and the **type of ribbon** you have installed.

System memory. Your system must be updated with additional memory to support the longer multi-color length (shown in the table in "Maximum label length and system memory" on page 3-13.) You can find out whether your system has additional memory by checking the Status. See "Checking system status" on page 1-26 for instructions.

Ribbon type: When you have a continuous color monochrome ribbon installed, certain restrictions apply for the label length. See "Maximum label length and

continuous color monochrome ribbons" on page 3-14 for a list of those restrictions. (For more information about ribbon types, see "Selecting ribbon type" on page 4-4.)

Also, note the following important points about label length:

- The unit of measure is determined by the Length units value described in "Setting system defaults" on page 1-23.

- A value of zero means that no length is selected, and the length of the label will be determined by how much content there is on the label (up to the maximum of 200 inches or 5080 mm).

- If there is already text in the text buffer, and the length you enter won't allow all the text to fit on the label, the "Text too long" message displays. See"Correcting multiple line problems" on page 2-7 for more information.

- If you set a label length in a standard layout, all horizontal areas will be divided into equal parts along that length. Refer to "Using standard layouts" on page 2-11.

Note: If you change ribbons or tape during label composition, the system keeps the **length** restrictions in place from the original ribbon and tape installed. For instance, if you start with a 14" paneled ribbon and decide to install a continuous color monochrome ribbon, the original 14" limitation still exists and will continue for that label and all other labels in that file. (See "Changing supplies" on page 4-7 for information about changing ribbons or tape.) Color listings, however, **are** updated to show the currently installed ribbon color(s).

Maximum label length and system memory

The following table provides a quick reference for maximum label lengths available with and without additional memory installed:

	Maximum Label Length	
Output type	**PowerMark without additional memory**	**PowerMark with additional memory**
Single color printing, monochrome ribbons	200 inches or 5080 mm.	Unchanged
Multi-color printing by switching monochrome ribbons	14 inches or 350 mm	60 cm or approximately 23.6 inches
Multi-color printing with paneled ribbons	Panel length, either 8 inches or 14 inches, depending on panel configuration	Unchanged

Note: The label preview function shows a maximum of 14 inches, even when you have additional memory installed. In that case, you'll see the first 14 inches of the label.

Maximum label length and continuous color monochrome ribbons
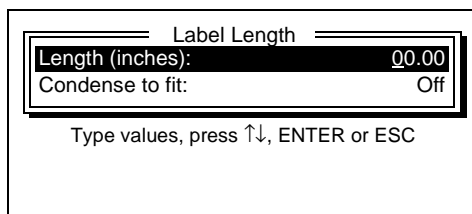
The following label length restrictions apply when you have a continuous color monochrome ribbon installed:

- You may not add a second color (for text, text background, graphics, label frame, or area frame) to the label if your existing text is already longer than the supported maximum label length for multi-color printer.

- You may not add a second color to the label when a label length longer than the supported maximum length for multi-color printed is already assigned.

- You may not set a label length longer than the supported maximum length for multi-color printing when multiple colors are already included in the label.

- You may not set a label length longer than the supported maximum length for multi-color printing when either the Reverse or Background color option is already turned On.

- You may not type text longer than the supported maximum length for multi-color printing when multiple colors are already included in the label, or either the Reverse or Background color option is already turned On.

- You may not add bar codes or graphics that make the label longer than the supported maximum length for multi-color printing when multiple colors are already included in the label, or either the Reverse or Background color option is already turned On.

- You may not change text size or formatting to extend the label beyond the supported maximum length for multi-color printing hen multiple colors are already included in the label, or either the Reverse or Background color option is already turned On.

To change the Length or the Condense to fit option:

1) Press the Label Length key.

The Label Length window displays.

```
╔═══════════ Label Length ═══════════╗
║ Length (inches):              00.00 ║
║ Condense to fit:                Off ║
╚═════════════════════════════════════╝

   Type values, press ↑↓, ENTER or ESC
```

2) To change the length, type a number within the valid range (as shown in the table above).
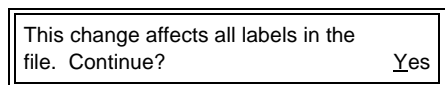
3) To change the Condense to fit option, press the ↓ key to move the cursor to that option. Then press the ← or → key to change the setting to On or Off.

Note the following points about the Condense to fit option:

- If you try to change this setting when there is already text in the text buffer, an error message displays instructing you to clear the text.

- All lines on a label are condensed by the same amount.

- This setting is ignored if you are working in a standard layout.

4) Press Enter when the settings you want to use are displayed.

The following message displays:

```
┌──────────────────────────────────────┐
│ This change affects all labels in the │
│ file.  Continue?                  Yes │
└──────────────────────────────────────┘
```

5) To apply the change, choose Yes. If you don't want to make the change, choose No.

If you applied the change, a change marker representing the option change appears in the text entry area (▓).

> **Note:** The setting you chose stays in effect for all labels until you either change the setting or turn the system off. Repeat the steps above when you want to reset an option.

Selecting label options

Your system provides many ways of changing the look of all labels that you type. This makes it easy to make all labels look the same without having to set options for each individual label. These options include:

- **Justification**—Lets you position the text on labels in one of three horizontal positions.

Left Justification	Center Justification	Right Justification
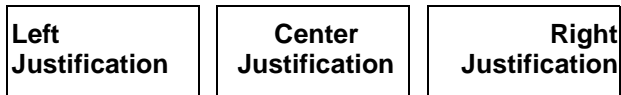
- **Text position**—Determines whether label text prints at the top, middle or bottom of the tape. This option determines whether any unused space on the tape appears above the text or below the text, or is divided evenly above and below the text.

Top	Middle	
		Bottom
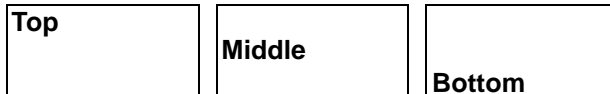
- **Text direction**—Controls the direction in which text is printed on the label. Normally, text prints from left to right (Along tape). You can choose Up tape to rotate the text so it prints from the bottom of the label to the top or choose Down tape to print it from the top of the label to the bottom.

Along tape	Up tape	Down tape

- **Line spacing**— Specifies how close together the lines on a label are printed. When printing accented characters, you may get better results if you use the Loose setting.

Normal spacing	Tight spacing	Loose spacing

- **Mirror**—Prints a mirror image of a label, on which the characters are inverted so that the label is readable in a mirror. (You may have seen mirrored text on the front of an ambulance or on a loading dock.)

.egami rorrim a si sihT
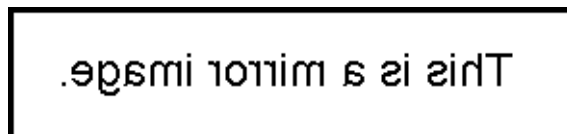
- **Baseline**—Determines how text is aligned if you use different type sizes within the same line. Normally, the baseline is centered so characters in all type sizes align in the middle. You can change the setting to Fixed so that characters in different

type sizes line up on the bottom.

Centered baseline		**Fixed baseline**

• Note that the baseline doesn't affect the Text position option. It only affects how different size characters align in relation to one another.

All of these features are available through the Label Options key. When you select any of these options, the option applies to *all* labels entered in the text buffer unless you are working in a standard layout. (In that case, you can choose whether the option should apply to all text or only the current area.)   You can select one of the options or combine several of them.

To choose Label Options:

1) Press the Label Options key.

The Label Options window displays.

```
╔══════════ Label Options ══════════╗
║ Justification:              Center ║
║ Text position:              Middle ║
║ Text direction:          Along tape║
║ Line spacing:             Normal ↓ ║
╚═══════════════════════════════════╝
      Press ↑↓←→, ENTER or ESC
```

2) Press the ↑ or ↓ key to move the cursor to the option you want to change.

3) When the option you want to set is highlighted, press the ← or → key to scroll through the available option settings.

Label option	What to do
Justification	Choose Left, Center or Right. The default justification value is set through the Setup options as described in "Setting system defaults" on page 1-23.
Text position	Choose Top, Middle (default) or Bottom to control whether the text is vertically centered in the top third, middle third or bottom third of the label.
Text direction	Choose Along tape (default), Up tape or Down tape.
Line spacing	Choose Normal (default), Tight or Loose. The Loose setting may provide better results when printing accented characters.
Mirror	Choose On or Off (default).
Baseline	Choose Center (default) or Fixed.

4) Repeat steps 2 and 3 if you want to choose settings for other label options.

5) Press Enter when all of the settings you want to use are displayed.

One of the following appears:

- If you are working in the normal text entry area (not in a standard layout), the following message appears. To apply the change, choose Yes. If you don't want to make the change, choose No.

> This change affects all labels in the
> file. Continue?   Yes
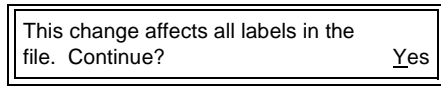
- If you are working in a standard layout, the Make Change window displays. Press the ↑ or ↓ key to highlight the option you want to use (see the table below). Then press the Enter key.

> Make Change
> At beginning of text
> At beginning of area
>
> Press ↑↓, ENTER or ESC
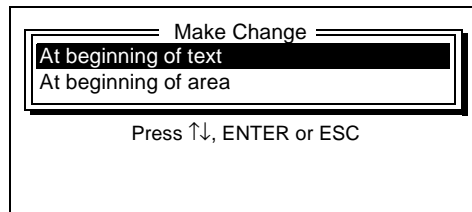
Make Change option	What it does
At beginning of text	Changes the option for all text in the text buffer.
At beginning of area	Changes the option for all text starting with the current area.

After making a selection in one of the windows, you are returned to the text entry area. If you applied the option, a change marker representing the option change appears in the text entry area ( ).

Note: The setting you chose stays in effect for all labels until you either change the setting or turn the system off. Repeat these steps when you want to reset an option.

Adding frames

Use the Frame function to print borders around an entire label or individual area on a label. You can choose different framing options for each label in the text buffer, and you can choose separate options for label frames and area frames:

- The label frame options let you print a border around the whole label. You can select the thickness and color of the border lines, as well as the shape of the border.

- The area frame options let you print a rectangular border around individual areas on a label. You can select the thickness and color of the border lines, but you cannot choose the border's shape.

> **Note:** If you frame areas for a label in which a non-rectangular frame is used, the label's frame setting is ignored. A rounded rectangle, ellipse or arrow label frame won't print if individual areas on the label are also framed.

The size of a label's frame depends on a variety of factors:

- Frames adjust horizontally to encompass the longest line of text. However, if a label length is specified, the entire length of the label is framed.

- If the label doesn't contain areas, the frame adjusts vertically based on the amount and size of the text on the label. The frame is not based on the width of the installed supply.

- If the label uses a standard layout, the frame's height is based on the width of the installed supply regardless of the height of the text.

- If the label contains areas but does not use a standard layout, the frame's height is based on the maximum text height in the area with the most text. However, if the areas are also framed, the height of the label frame is based on the width of the installed supply, regardless of the height of the text.

Follow these steps to frame a label or an area on a label:

1) Display the label or area you want to frame and press the Frame key.

The Frame Options window displays.

```
┌══════ Frame Options ══════┐
│ Label:                 Off │
│ Label line width:     Thin │
│ Label frame color:   Black │
│ Label frame shape: Rectangle ↓│
└────────────────────────────┘
      Press ↑↓←→, ENTER or ESC
```

2) Press the ↑ or ↓ key to move the cursor to an option you want to set. Then press the ← or → key to select a value as shown in the following table.

Frame option	What it does
Label	Controls whether a frame prints for the current label and whether the frame from the previous label will be used for the current label. Choose Off (default), On or Use previous.
Label line width	Sets the line width for the label frame. Choose Thin (default), Medium or Wide.
Label frame color	Sets the color for the label frame. The default is the first color value stored in the memory cell of the installed ribbon, or black if no ribbon is installed. • If either a paneled ribbon or continuous color monochrome ribbon is installed, you can choose from the entire color palette. The colors available on that ribbon are listed first, and are identified by asterisks around the color name, as shown on the Frame Options window example above. When you print, you will be prompted when you need to install a different color ribbon. You can cycle through the color list. • If a monochrome ribbon is installed, the color of the installed ribbon is displayed, but you cannot change the color setting. • If no ribbon is installed, when you turned on the system you were asked to choose whether you wanted to create labels based on a paneled or monochrome ribbon type. If you chose Paneled, you are prompted to also choose the paneled ribbon colors you wanted to use; those colors are available for selection. If you chose monochrome, see the information in the previous paragraph. For more information, see "How installed ribbons affect label composition" on page 2-6.

Label frame shape	Determines the shape of the label frame. Choose Rectangle (default), Rounded Rectangle, Ellipse, Left Arrow or Right Arrow.
Area	Controls whether a rectangular border prints around each individual area on the label and whether the frame from the previous area will be used for the current area. Choose Off (default), On or Use previous.
Area line width	Sets the line width for the area frame. Choose Thin (default), Medium or Wide.
Area frame color	Sets the color for the area frame and works the same as the Label frame color option. If both area frames and label frames are turned on, the label frame color overrides the area frame color. This applies even for internal area frame lines.

3) Press Enter to close the Frame Options window.

A change marker appears in the text buffer to indicate where frame options were changed (▓).

Using the date and time option

Use the Date/Time key to quickly add the current date and/or time to your labels. When you use this function, a marker is placed on the label; whenever you print the label, the current date and/or time will be printed in place of the marker.

The first subsection in this section describes how to add the date or time to a label. The remaining subsections explain how to set the date and time and how to set up the format in which they are displayed.

Entering the date and time on a label

Follow these steps to enter the date and time on a label:

1) Move the cursor to where you want the date and/or time to appear on the label.

2) Press the Date/Time key.

The date/time marker shown below displays in the text entry area. When you print the label, the current date and/or time prints in place of the marker. How the information is printed depends on the options you've selected for the date/time format. (Refer to "Setting the date/time format" on page 3-25.) The date and time will be printed using the font, type size and other options that are in effect when you press the Date/Time key.
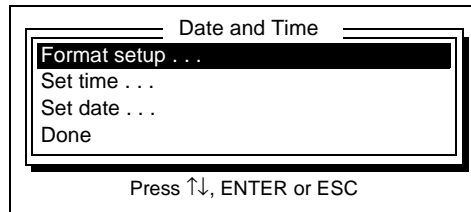
Setting the time

Follow these steps to change the time on your system:
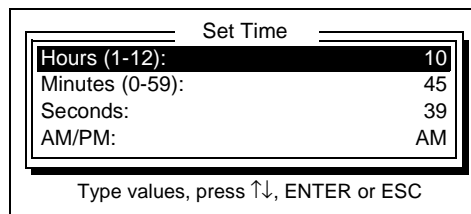
1) Hold down the Shift key and press the Date/Time key.

The Date and Time window displays.

```
┌─────── Date and Time ───────┐
│ Format setup . . .          │
│ Set time . . .              │
│ Set date . . .              │
│ Done                        │
└─────────────────────────────┘
      Press ↑↓, ENTER or ESC
```

2) Press the ↑ or ↓ key to move the cursor to the Set time option. Press Enter.

The Set Time window appears and displays the current system time.

```
┌─────────── Set Time ───────────┐
│ Hours (1-12):              10   │
│ Minutes (0-59):            45   │
│ Seconds:                   39   │
│ AM/PM:                     AM   │
└────────────────────────────────┘
   Type values, press ↑↓, ENTER or ESC
```

3) Press the ↑ or ↓ key to move the cursor to an option you want to set. Then type a value as shown in the following table.

Date option	What it does
Hours	Sets the hour value. If the Time format option in the Format Setup window is 12 hours, enter a value between 1 and 12; if that option is 24 hours, enter a value between 0 and 23.
Minutes	Sets the minute value. Enter a value between 0 and 59.
Seconds	Sets the seconds value. Enter a value between 0 and 59.
AM/PM	Sets the current time to AM or PM. This option does not appear if the Time format option in the Format Setup window is 24 hours.
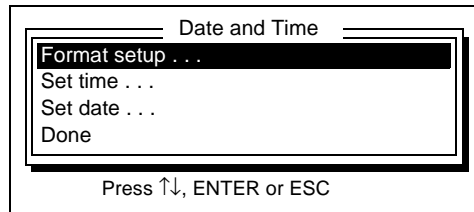
4) Press Enter to close the Set Time window.

Setting the date

Follow these steps to change the date on your system:
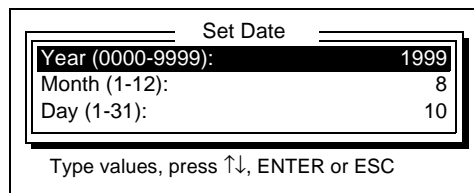
1)   Hold down the Shift key and press the Date/Time key.

The Date and Time window displays.

```
┌──────── Date and Time ────────┐
│ Format setup . . .            │
│ Set time . . .                │
│ Set date . . .                │
│ Done                          │
└───────────────────────────────┘
     Press ↑↓, ENTER or ESC
```

2)   Press the ↑ or ↓ key to move the cursor to the Set date option. Press Enter.

The Set Date window appears and displays the current system date.

```
┌──────────── Set Date ────────────┐
│ Year (0000-9999):           1999 │
│ Month (1-12):                  8 │
│ Day (1-31):                   10 │
└──────────────────────────────────┘
    Type values, press ↑↓, ENTER or ESC
```

3)   Press the ↑ or ↓ key to move the cursor to an option you want to set. Then type a value as shown in the following table.

Date option	What it does
Year	Sets the year value. Enter a value between 0000 and 9999.
Month	Sets the month value. Enter a value between 1 and 12.
Day	Sets the day value. Enter a value between 1 and 31.
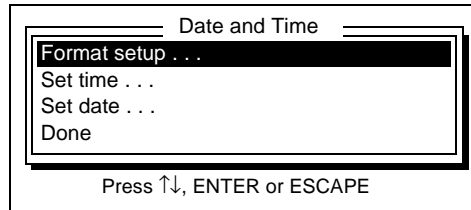
4)   Press Enter to close the Set Date window.

Setting the date/time format

Follow these steps to choose the format in which the date and/or time will be printed when you insert it on your labels:
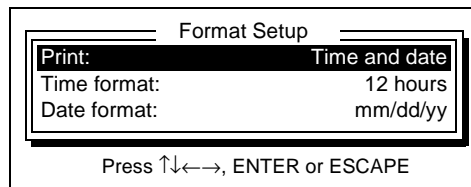
1) Hold down the Shift key and press the Date/Time key.

The Date and Time window displays.

```
┌─────────── Date and Time ───────────┐
│ Format setup . . .                   │
│ Set time . . .                       │
│ Set date . . .                       │
│ Done                                 │
└──────────────────────────────────────┘
      Press ↑↓, ENTER or ESCAPE
```

2) Press the ↑ or ↓ key to move the cursor to the Format setup option. Press Enter.

The Format Setup window displays.

```
┌─────────── Format Setup ───────────┐
│ Print:                 Time and date │
│ Time format:              12 hours   │
│ Date format:              mm/dd/yy   │
└──────────────────────────────────────┘
    Press ↑↓←→, ENTER or ESCAPE
```

3) Press the ↑ or ↓ key to move the cursor to an option you want to set. Then press the ← or → key to select a value as shown in the following table.

Date/time format option	What it does
Print	Specifies which time and date elements print on the label. Choose time and date (default), date and time, date, or time.
Time format	Sets whether time is displayed using a 12 (default) or 24 hour clock.
Date format	Sets the format in which the date is printed. Choose from the following: 　　　mm/dd/yy (default) (08/12/99) 　　　dd/mm/yy (12/08/99) 　　　mm.dd.yy (08.12.99) 　　　dd.mm.yy (12.08.99) 　　　mm-dd-yy (08-12-99) 　　　dd-mm-yy (12-08-99) 　　　dd mmmmmmmm yyyy (12 August 1999) 　　　mmmmmmmm dd, yyyy (August 12, 1999)

4) Press Enter to close the Format Setup window.

Creating sequences

The Sequence function is a powerful feature that makes it easy to create a series of labels. For instance, you may need to create a set of labels like this:

| Part W300-96 | Part W305-96 | Part W310-96 |

If you only had this series of three labels to print, it would not be that hard to type the text three times. But if you needed labels up to Part W350-96, you would save a lot of work by creating a sequence.

The Sequence function allows you to print labels like the series above by typing the information only once. All you need to do is tell the system which information should change on each label, and it automatically creates the series when you print. You can have up to three independent sequences in the text buffer or a file. The sequence numbers can be incremented or decremented.

Before you create sequenced labels, just determine which text remains the same on each label and which text changes.
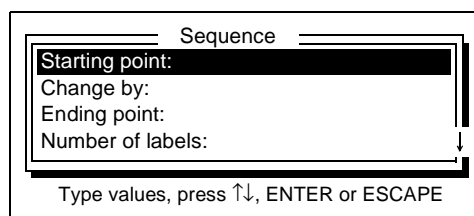
To print a sequence:

1) **Type the text, if any, that comes before the sequenced text. If you need a space between this text and the sequenced text, type the space also.**

   To create the example above, you would type **Part W**.

2) **Press the Sequence key.**

   The Sequence window displays.

```
┌══════════ Sequence ══════════┐
│ Starting point:              │
│ Change by:                   │
│ Ending point:                │
│ Number of labels:          ↓ │
├──────────────────────────────┤
│ Type values, press ↑↓, ENTER or ESCAPE │
```

3) **For the Starting point option, type the sequenced number(s) or letter(s) for the first label you want printed.**

   You can enter a number between 0 and 99999, a letter between a and z or a letter between A and Z. To print a sequence with leading zeros, type as many as you want here. (The system beeps if you try typing both letters and numbers, such as 3B, or if you leave this option blank.) To create our example, you would type **300**.

4) **Move the cursor to the Change by option. Enter the increment by which the sequenced text should increase in each new label.**

Type a number between 1 and 99999. To create our example, you would type **5**, since the number increases by five in each label.

5) **Move the cursor to the Number of labels option. Type the number of labels you want printed with this sequence (from 1 to 999).**

For instance, to create our example, you would type **11**. This would create labels with these numbers: 300, 305, 310, 315, 320, 325, 330, 335, 340, 345, 350.

In our example, the Ending point option now shows the last sequenced label number: 350. This value is automatically filled in if you enter a Number of labels value. You can also type this value yourself, as with the Starting point value. (If you had typed this number yourself, the Number of labels option would automatically display the number of labels to print: 11.)

> **Note:** You can enter a Starting point number greater than the Ending point number to decrement a sequence. For example, if you type a Starting point of 8, a Change by value of 2, and an Ending point of 2, the system will print these labels: 8, 6, 4 and 2. To decrement a sequence, you must enter an Ending point value.

6) **After selecting all options, press Enter.**

The following marker appears in the text entry area:
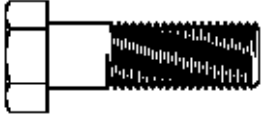
To check or change any of the sequence values, position the cursor on the sequence marker and press the Sequence key. Make any necessary changes and press the Enter key.

7) **Type the text, if any, that comes after the sequenced text.**

To create our example, you would type -96.

Working with bar codes

Use the Bar Code function to insert a bar code on a label. All you need to do is select bar code options and enter the type of information the bar code will contain. The system converts the information into bar code characters as shown in the following example.

In the example above, notice the text "12345" in the text entry area. This text is surrounded by bar code markers ‖. All characters following a bar code marker are treated as bar code information and print as a bar code, until a second bar code marker is encountered and bar coding is turned off.

You can select a variety of bar code options, or attributes. These include the bar code symbology, bar code height and whether or not the human-readable text prints below the bar code.

Note: Only one bar code symbology and one set of attributes can be in effect in the text buffer at one time. To change the symbology or other attributes, save the current bar code label in a file, clear the text buffer and create a new label.

The line spacing setting, type style, type size and all type options are ignored for the bar code itself but are applied to text before or after the bar code. If the area containing the bar code uses a background color, the color is ignored for the bar code.

Inserting a bar code on a label

1) Select the bar code options you want to use.

Refer to "Selecting bar code options" on page 3-29.

2) Press the Bar Code key.

A bar code marker appears in the text entry area.

‖‖

3) Type the bar code characters.

The supported bar code symbologies can each contain a maximum of 50 characters.

4) If you are using a Code 128 symbology, type any necessary special characters.

This feature applies ONLY to Code 128 bar codes.

- Hold down the Alt key and press the Bar Code key.

- In the Enter ASCII/Special Chars window, type the characters. Characters include ASCII characters less than decimal code 32, ASCII characters 123 to 127, and four non-data function characters (F1, F2, F3 and F4).

- Press Enter to close the window. The special bar code character marker appears in the text entry area.

█

5) Press the Bar Code key.

A bar code marker appears after the bar code characters you typed. When you print the label, the characters between the markers are used to create a bar code with the symbology you selected.

‖‖

Selecting bar code options

Follow this procedure to choose bar code attributes, including the symbology, for all labels in the text buffer:

1) Hold down the Shift key and press the Bar Code key.

The Bar Code Attributes window displays.

```
┌─────── Bar Code Attributes ───────┐
│ Symbology:              Code 39    │
│ Height (1.0 - 8.5 inches):   3.50  │
│ Density:                20 mil     │
│ Human readable text:    Below ↓    │
│                                    │
│    Press ↑↓←→, ENTER or ESC        │
└────────────────────────────────────┘
```

2) **Press the ↑ or ↓ key to move the cursor to the option you want to set.**

3) **When the option you want to set is highlighted, press the ← or → key to scroll through the available settings. (Refer to the table below.)**

4) **When the settings you want to use are displayed, press Enter.**

Bar code option	What it does
Symbology	Sets the bar code symbology. The available symbologies are Code 39, Code 128A, Code 128B, Code 128C and Interleaved 2 of 5.
Height	Determines the bar code height. Enter values from 0.25 to 8.5 inches (default is 1.0) or from 6 to 215 mm. The unit of measure is the Length units setting. (Refer to "Setting system defaults" on page 1-23.) This height does not include the human-readable text.
Density	Controls the width of the bar code's narrow elements. This setting determines the width of the quiet zone (the clear space that precedes the bar code's start character and follows the stop character). The quiet zone width is ten times the density value you select. Choose 10, 20, 40, 50, 60, 80 or 100 mils.
Human readable text	Specifies whether or not human-readable text is printed with the bar code. Choose Below (default) or None.
Start/Stop in HR text	Determines whether or not the start and stop characters are printed in the human-readable text. Choose Off (default) or On.
Check character	Controls whether or not a check character is printed for the bar code. Choose Off (default) or On.
Human readable text size	Sets the size of the human-readable text. You can select a type size from the available settings. You can also select the Auto setting, which scales the text to 25 percent of the bar code height. If the Human readable text option is set to None, this setting is ignored. The unit of measure is the Type size units setting. (See "Setting system defaults" on page 1-23.)

Chapter 4: Printing

This chapter provides information on printing labels and about the system's ribbon and tape supplies. Topics include:

Working with supplies, beginning on page 4-2, with sections on supply tape, supply ribbon and selecting a ribbon type, how to swap ribbons during printing, how to change supplies, and more.

Printing labels, beginning on page 4-8, with information on how to print multiple copies of labels and how to change the print density and thermal energy for a print job.
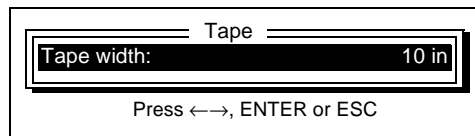
Working with supplies

This section provides information on using your system's ribbon and tape supplies. Refer to "Setting up your system" on page 1-2 for information on installing ribbon and tape in the system.

Supply tape

Part of creating a label involves choosing the width of the tape on which you'll print the label. Your system supports tape widths from 4 to 10 inches (100 to 254 mm) in a variety of colors. The system doesn't need to know the tape color but does need to know the width. The width information is stored in the memory cell flag located on each tape cartridge, and the system reads that information when you turn on the system, when you retrieve a file stored in memory, when you change the tape and when you print. Information about the tape width that was used is stored with a label when you save it; when you retrieve the file, a message appears if the installed tape isn't the correct width.

When you turn on the system, the system checks the width of the installed tape. If no tape is installed, the "Unknown supply type" message displays, and you're prompted to install the tape. If you press a key to continue *without* installing a tape cartridge, the Tape window displays as shown below.

```
╔═══════════════ Tape ═══════════════╗
║ Tape width:                  10 in  ║
╚═════════════════════════════════════╝
       Press ←—→, ENTER or ESC
```

This window allows you to choose the tape width you want to use when creating labels without installing the tape. Press the ← or → key to display the width you want to use, then press Enter. The default is 10 in (254 mm). The unit of measure is the Length units setting selected in the Setup window. (Refer to "Setting system defaults" on page 1-23.)

> **Note:** The settings you choose in this window are in effect until you print or turn the system off.

> **Note:** Use the Status key to display tape supply information, such as the amount of tape remaining in the installed supply. Refer to "Checking system status" on page 1-26.

Supply ribbon

As you create your labels, you'll have the opportunity to decide which ribbon colors to use for printing the labels. You have great flexibility in choosing your colors, since all colors on the palette are available to you at all times, regardless of what kind of ribbon you install. (In fact, you can even compose your label *without* installing a ribbon. See "Operating the system without supplies installed" on page 4-6 for details about how you can use this feature.)

Your system supports both **paneled ribbons**, which contain multiple colors in the same ribbon cartridge, and **monochrome ribbons**, which contain one color. You can print your label:

- By using a single ribbon of either type, using only the color(s) on the ribbon for your design.

- By swapping various monochrome ribbons in and out during a single print job, which means you can use multiple monochrome ribbons to print a label you designed while a paneled ribbon was installed.

- By swapping monochrome and/or paneled ribbons during a single print job.

> **Note:** If you change ribbons or tape during label composition, the system keeps the **length** restrictions in place from the original ribbon and tape installed. If you start with a 14-inch paneled ribbon and decide to install a continuous color monochrome ribbon, the original 14-inch limitation still exists and will continue for that label and all other labels in that file.
>
> Color listings, however, **are** updated to show the currently installed ribbon color(s).

However, because the system looks at the installed supplies to determine the rules you must follow, the procedure you use to compose and print your label differs according to the ribbon you install.

The information your system needs is stored in the memory cell flag located on each ribbon cartridge. The system reads that information every time you:

- Turn on the system

- Retrieve a file stored in memory

- Change the tape or ribbon

- Print any label

The system uses the ribbon supplies installed in your system during label composition to determine the rules you must follow for selecting colors and to determine the maximum label length supported. (See "Setting label length" on page 3-12 for a table of information about maximum supported lengths.)

For example, when you have installed a **paneled ribbon**, the length of the panels on the ribbon determine the maximum length of the label you are creating. If you compose the label with too many lines, the system will display a message warning you that the label is too long. This doesn't mean that you cannot *print* that label. You can work around the maximum length by using a combination of continuous color monochrome ribbons when you print. It does mean that however that while you are composing the label, you won't be able to see more of the label than the maximum panel length set by the installed ribbon.

But when you have installed a **continuous color monochrome ribbon**, the system can't tell whether you are planning to create a single color-job, or whether you are planning to swap in various ribbons to create a multi-color job. When the system detects a continuous color monochrome ribbon installed, it assumes you are creating a single color label, *until* you select a second color within the same label. At that point, the system checks the label length to see if your label text already exceeds the supported length:

- **If the label length is too long**, it displays a message and you need to correct it. (See "Correcting multiple line problems" on page 2-7 for instructions.)

- **If the label length is within the supported length** when you select the second color, no message is displayed and you can continue.

(You should keep in mind that other changes besides color can affect the length of the label as well. For example, changing the font size or adding an area could increase the length of the text. In those cases, the system displays a message informing you, and you must correct the label in order to print it. See "Adding lines, labels and areas to freeform labels" on page 2-7 for details.)

> **Note:** Use the Status key to display ribbon supply information, such as the width of the installed supply. Refer to "Checking system status" on page 1-26.

Selecting ribbon type

When you create a label, the system uses color information from the installed ribbon. As noted in the previous section, when you turn on the system, the system checks which type of ribbon is installed. If no ribbon is installed, the "Unknown supply type" message displays, and you're prompted to install the ribbon. If you press a key to continue *without* installing a ribbon cartridge, the Ribbon window displays as shown

below (see "Operating the system without supplies installed" on page 4-6 for details). This window allows you to choose the type of ribbon you want to use for the label without installing the ribbon.

```
╔═══════════════ Ribbon ═══════════════╗
║ Ribbon type:              Paneled    ║
╚══════════════════════════════════════╝
          Press ←→, ENTER or ESC
```
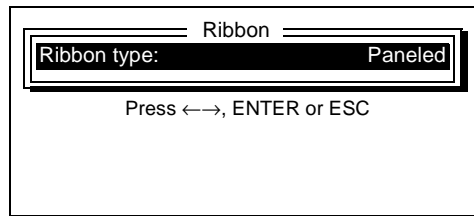
Press the ← or → key to display either Paneled or Monochrome, then press Enter.

- **Paneled**—If you choose Paneled, the Paneled Ribbon window displays. You can select ribbon colors and panel length. When you create labels, you can choose from these colors. (You can also print more colors by swapping ribbons. See "Supply ribbon" on page 4-3 for details.) When you print the labels, you need to install the paneled ribbon you selected here.

  Press the ↑ or ↓ key to highlight the option you want to set, then press the ← or → key to display the setting you want to use. When you're done, press Enter.
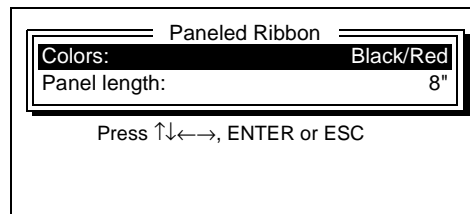
```
╔═══════════ Paneled Ribbon ═══════════╗
║ Colors:                 Black/Red    ║
║ Panel length:                  8"    ║
╚══════════════════════════════════════╝
         Press ↑↓←→, ENTER or ESC
```

> **Note:** The settings you choose in this window are in effect until you print or turn the system off.

- **Monochrome**—If you choose Monochrome, no further settings are required.

Swapping ribbons during printing
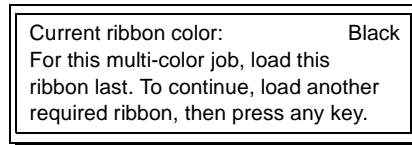
When you compose your label and choose print, the system analyzes the job and determines what ribbons are needed to print the label. This process applies to both paneled ribbons and continuous color monochrome ribbons.

During the print process, if substitution is necessary, the system prompts you to install specific ribbon colors. For example:

```
┌──────────────────────────────────────┐
│ Install ribbon color:          Blue  │
│                                      │
│ Then press Enter to continue or to use a
│ different color, or Escape to quit.  │
└──────────────────────────────────────┘
```
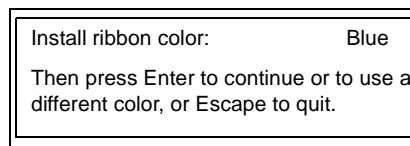
You change the ribbon as specified, then press Enter to continue your print job. The system checks to see if the new ribbon is installed, and then checks to make sure the new ribbon is appropriate for the print job. If there are any problems with the installed ribbon, the system prompts you for corrections or for substitutions, where appropriate.

For example, if your currently installed ribbon is a continuous color monochrome black ribbon and you are starting a multi-color print job, you'll see this message:

```
Current ribbon color:          Black
For this multi-color job, load this
ribbon last. To continue, load another
required ribbon, then press any key.
```
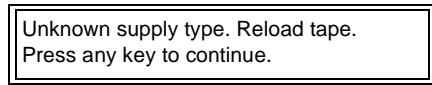
This is because the system knows that for best print quality, black should be the final color printed.

You can override these system messages simply by not changing the ribbon, then continuing the print job.

Operating the system without supplies installed
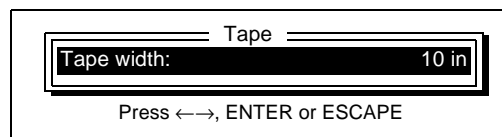
The supplies you install in the system determine the physical characteristics of the labels you create and edit. But under certain circumstances, you may want to power on the system without installing supplies first. The system then prompts you for the supply attributes you will eventually use to print the label you create.

It first asks you to load the tape or ribbon, as shown in this example:

```
Unknown supply type. Reload tape.
Press any key to continue.
```

The message displays until you press a key to continue. If you do not install a tape, the system starts prompting you to provide the supply attributes—that is, for a tape, the width, for a ribbon, the type and colors if the type is paneled—for the new label. For example:

```
═══════ Tape ═══════
Tape width:                    10 in
Press ←—→, ENTER or ESCAPE
```

The choices you make are kept with the label you create, and are active for your current work session.

Changing supplies

Whenever you install new tape or ribbon supplies, the system checks the supply's width, type and color. The following messages may display.

- Unknown supply type—Displays if you turn the system on without installing ribbon or tape. See "Selecting ribbon type" on page 4-4 for information on responding to the message. This message also displays if an error occurred in reading the supply memory cell.

- X.XX inch ribbon needed—Displays if the widths of the installed ribbon and tape are incompatible (for example, a 6.25" ribbon is installed with a 10" tape). A similar message appears during printing if you install the incorrect ribbon width.

- Unknown Ribbon/Tape Colors—Displays if the ribbon or tape color does not match any of the standard system colors. This may occur if new supply colors are introduced after the system is manufactured.

In the window that displays, you can type your own custom tape or custom ribbon color name. This color name will then automatically be used each time you install this tape or ribbon color. You can later use the Setup key to change the tape and ribbon colors you entered, as described in "Setting system defaults" on page 1-23.

Supply storage and handling

When handling supplies, avoid touching the tape and ribbon as much as possible. Store supplies in their original cartons in a cool, dry place. If you don't store supplies in the cartons, stand them on end with the flag end up. For further information, refer to Chapter 7, "Cleaning and Maintenance."

Printing labels

Press the Print key on the labeling system keyboard to print all the labels currently entered in the text buffer. If you have typed multiple labels by using the New Label key, all labels will print even though you cannot see all of them on the screen. Any labels that are blank are not printed.

After you press Print to start the print job, you'll see the "Composing" message with an animated icon called a "spinner." The rotating spinner tells you that the system is working on composing the print job before it actually starts printing. (The rotating spinner appears whenever the system displays the "Please wait" message as well.)The message disappears when the printer is ready to start printing.

Here are some things to note about printing:

- Before printing a large number of labels, use the Status key to check that you have plenty of tape in the printer. Refer to "Checking system status" on page 1-26.

- Before printing begins, the system checks that the appropriate supplies are installed. Refer to "Working with supplies" on page 4-2 for further information. When printing starts, the following message displays:

> Printing label xx of xx.
> Press Escape to stop printing.

- The Number of copies option determines how many copies of each label are printed. All copies of one label are printed before the next label prints. Refer to "Printing multiple copies" on page 4-9.

- The Pause between labels option determines whether or not the system pauses after printing each label. Refer to "Setting system defaults" on page 1-23 for details on turning the pause option on and off. If the pause option is on, this message appears each time the system encounters a new label when printing:

> Printing paused.
> Press Enter to continue or Escape
> to quit.

To continue printing the labels, press the Enter key. Printing continues from where it left off. To stop printing, press the Escape key.

- To prevent tape jams in your system, NEVER turn the system off while it is printing. If a jam does occur, you may be able to clear it by opening the printer cover and rewinding the tape onto the tape spool. DO NOT try to clear a jam

using screwdrivers or similar tools; this could cause damage to the cutter mechanism.

- To stop printing at any time, press the Escape key. This message appears:

```
Continue printing?                          No
```

To stop printing, choose No. The system advances and cuts the tape for you. To continue printing, choose Yes (if necessary, you can install new supplies first). Printing continues from where it left off.

- The system automatically cuts the tape after printing each label.

- You can advance and cut the tape at any time by pressing the Cut key.

- The Leader/trailer length option determines how much blank tape there is at the beginning and end of each label. (Refer to "Setting system defaults" on page 1-23.)

  Note that your system was designed to prevent tape from being wasted. When you start printing, if more tape is advanced than is needed for the leader/trailer length, the system will rewind the tape to the appropriate spot.

Printing multiple copies

When a label is displayed in the text buffer, you can select how many copies of that label should be printed. To set this option, press the Repeat key on the labeling system keyboard, type a number between zero and 99 and press Enter. The default value is 1.

```
                    Copies
   Number of copies                        1

          Type values, press ENTER or ESC


```

Whenever you print the label, the system will generate the number of copies you chose here. To prevent a specific label from printing, type a zero for this option.

Note: If needed, you can enter a different number of copies for every label. Just display each label, press the Repeat key and enter a value. The value you select for each label will be saved if you save the labels in a file.

Changing print density/thermal energy

Use the Density key on the labeling system keyboard to adjust the print density by increasing or decreasing the thermal print energy. You can change this setting while labels are printing or at any other time.

To change the setting, press the Density key to display the Density/Energy window shown below.

```
┌─────────────────────────────────────────┐
│  ┌──────── Density/Energy ────────┐      │
│  │ Less                     More  │      │
│  │ ███████████        t           │      │
│  └────────────────────────────────┘      │
│         Press ←→, ENTER or ESC            │
└─────────────────────────────────────────┘
```
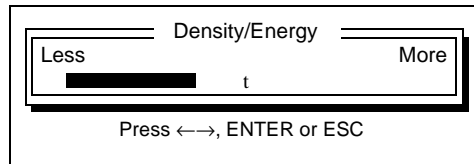
•   Press the → key if you are seeing incomplete characters, poorly filled text or a poor leading edge line.

•   Press the ← key if the ribbon is bonding to the tape.

•   The arrow in the center of the density indicator represents the normal setting.

•   When you turn the system off, the setting is saved and will be in effect when you turn the system back on. However, the option returns to the normal setting whenever you change the ribbon or tape supply.

Chapter 5: Label Storage

Your labeling system allows you to save the labels you create so that you or other users can use them again without having to retype. You can store labels in files, much as you do on a computer. This chapter describes how to save, retrieve, copy and delete those files.

You can save label files in two places, **resident memory** and **memory cards**, both of which are described in this chapter.

*   Resident memory is standard storage space is available inside of each system, and is comparable to the hard disk space on a computer.

*   Memory cards are special cards comparable to computer floppy disks. You insert the cards in one of the slots on the right side of the system. These cards allow different users to store labels on their own cards, and allow you to categorize your labels and save different types on different cards. You can purchase memory cards from your labeling system distributor.

Installing and removing memory cards

Before you can save, retrieve or delete files from a memory card, you need to install the card in the labeling system. There are two memory card slots located on the right side of the system (if you are facing the display window).

You can insert the card you want to use in either slot. If there is no card in the top slot, the system automatically checks the bottom slot. However, if there are cards in both slots, the system always uses the card in the top slot. (If you want to erase a memory card as described in "Clearing a memory card" on page 5-11, you must insert the card in the top slot.)

> **Note:** You don't need to turn off the system before installing or removing a memory card.

1) **If you need to remove a memory card that's already installed, push in the black button above the slot to release the card, then pull the card out.**

2) **Slide the new card firmly into the slot as far as it will go.**

When the card is properly installed, the black release button above the slot will pop out.

Memory card slots
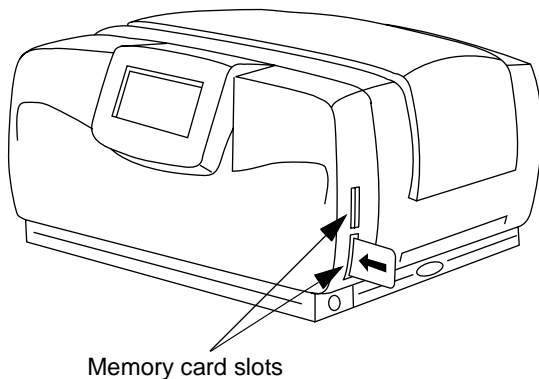
Checking available memory

Before you save labels, you may want to check that there is enough memory available either internally or on the memory card you want to use. Follow these steps:

1) **To check the memory available on a memory card, first install the card as described in "Installing and removing memory cards" on page 5-2.**

2) **Press the File key on the labeling system keyboard.**

   The File window displays.

```
┌─────────────── File ───────────────┐
│ Get:                                │
│ Save:                               │
│ Delete:                             │
│ Location:          Resident memory ↓│
└─────────────────────────────────────┘
    Type name, press ↑↓←→, ENTER or ESC
```
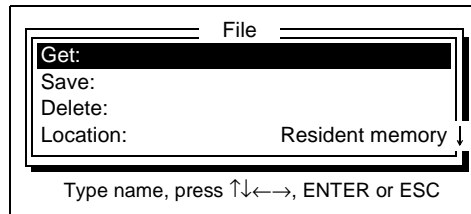
3) **Use the ↑ or ↓ key to move the cursor to the Location option. Then use the → key to display Resident memory or Memory card, depending on which memory location you want to check.**

4) **Press the ↓ key to move the cursor to the Available memory option.**

   The value indicates the percentage of memory that's available. In the example below, 60% of the resident memory remains available.

```
┌─────────────── File ───────────────┐
│ Location:          Resident memory ↑│
│ Available memory:               60% │
│ Copy all files:    From memory to card│
│ Print file list . . .               │
└─────────────────────────────────────┘
         Press ↑↓←→, ENTER or ESC
```
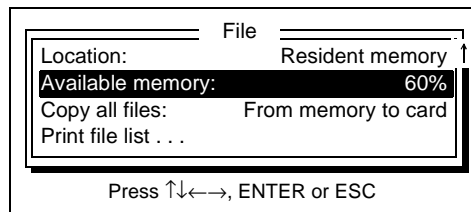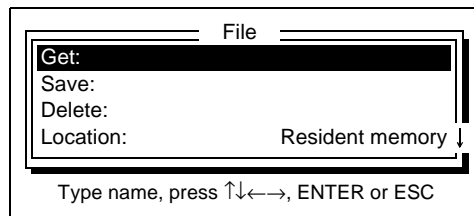
Saving files

Follow these steps to save your labels in a file in the system's internal memory or on a memory card. All information currently in the text buffer will be saved.

1) To save the file on a memory card, first install the card as described in "Installing and removing memory cards" on page 5-2.

2) Press the File key on the labeling system keyboard.

The File window displays.

```
┌──────────────── File ────────────────┐
│ Get:                                  │
│ Save:                                 │
│ Delete:                               │
│ Location:           Resident memory ↓ │
└───────────────────────────────────────┘
     Type name, press ↑↓←→, ENTER or ESC
```

3) Use the ↑ or ↓ key to move the cursor to the Location option. Then use the → key to display Resident memory or Memory card, depending on where you want to save the file.

4) Use the ↑ or ↓ key to move the cursor to the Save option.

5) Type a name for the file (up to eight letters and/or numbers). To use an existing file name, use the ← or → key to display the name of the file you want to use.

The system automatically adds an extension to the file name that you cannot change. For example, files not created with a specialty application will have an extension of .OS (as in mylabel.os).

6) Press Enter.

- If you chose a file name that already exists, you're asked if you want to overwrite it. Choose Yes to erase the old file and replace it with the new file; choose No to return to step 5 and enter a different file name.

- If there is not enough memory available to save the file, a "Memory full" message displays. You need to either save to a different memory card or delete some files from resident memory or the card you're using. (Refer to "Deleting saved files" on page 5-9.)

- If the text buffer is empty, a "No text to save" message displays.

- A "File saved" message displays after the file has been successfully saved.

Getting saved files
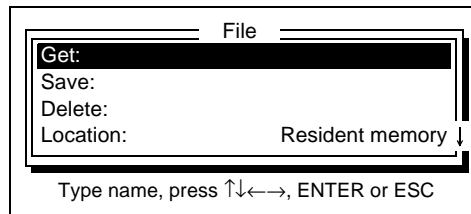
Follow these steps to retrieve a file that was previously saved in resident memory or on a memory card. When you retrieve a file it is placed in the text buffer so you can print or edit it, and all of the settings that were selected for that file are in effect.

1) To retrieve a file stored on a memory card, insert the card in a card slot.

Install the card as described in "Installing and removing memory cards" on page 5-2. If cards are installed in both slots, you can retrieve files from the card in the top slot.

2) Press the File key on the labeling system keyboard.

The File window displays.

```
┌══════════════ File ══════════════┐
│ Get:                              │
│ Save:                             │
│ Delete:                           │
│ Location:           Resident memory ↓│
└───────────────────────────────────┘
   Type name, press ↑↓←→, ENTER or ESC
```

3) Use the ↑ or ↓ key to move the cursor to the Location option. Then use the → key to display Resident memory or Memory card, depending on where the file you want to retrieve is stored.

4) Use the ↑ or ↓ key to move the cursor to the Get option.

5) Type the name of the file you want to retrieve (including the extension, such as .OS), or use the ← or → key to display the name of the file.

- As you press the ← or → key, the system lists the next file stored in the selected location. Continue pressing the key to scroll through all file names.

- If you type a name, the system displays the first file name that matches what you typed as a way of helping you locate the file more quickly. For example, if you type "abc" the system displays the name of the first file it finds that begins with "abc."

6) When the name of the file you want to retrieve is displayed, press Enter.

- If the file was found, it is placed in the text buffer.

  If the retrieved file was created with a specialty application, the system launches that application. For example, the Signs application will automatically open if the file was saved using that application.

- If the system couldn't locate the file, a "File not found" message displays.

- If the specialty application used to create the file doesn't exist on the labeling system, an "Application not found" message displays and the file is not opened.

- If there is text in the text buffer that you haven't saved, this message displays:

```
Overwrite text?                        No
```

Choose Yes to erase the content of the text buffer and open the file. Choose No if you do not want to erase the content of the text buffer. (If you choose No, you can save the text buffer contents before retrieving the file.)

- If the file being retrieved uses a supply width different from the supply that is installed, a message similar to this one displays:

```
X.XX inch tape needed.  Press any key
to continue.
```

Press any key. If the file's content will not fit on the installed supply because it contains too many lines or too large a type size, the file is not retrieved. If the file's content will fit on the installed supply, the message still appears but the file is retrieved. See "How installed ribbons affect label composition" on page 2-6 for more information.

- Color settings may have been saved with the file, depending on the type of ribbon used to create the file. When you print, messages may display if the ribbon doesn't match the setting used to create the file. Refer to "Working with supplies" on page 4-2.

Copying files to or from a memory card

Use this procedure to copy all the files stored in resident memory to a memory card, or to copy all files stored on a memory card to resident memory. To copy between cards, copy files from a memory card to resident memory, then from resident memory to a memory card.

Note: Copying to a memory card overwrites all existing files on the card. Copying from a memory card to resident memory doesn't overwrite files; the files are added to the list of existing files.

1) Insert the memory card.

Install the card as described in "Installing and removing memory cards" on page 5-2. Insert the memory card you want to copy to or from in either card slot. If there are cards in both slots, the system uses the card in the top slot.

2) Press the File key on the labeling system keyboard.

The File window displays.

```
═══════════ File ═══════════
Get:
Save:
Delete:
Location:              Resident memory ↓

   Type name, press ↑↓←→, ENTER or ESC
```

3) Use the ↑ or ↓ key to move the cursor to the Copy all files option as shown below. Then use the → key to display either From resident memory or From memory to card.

```
═══════════ File ═══════════
Location:              Resident memory ↑
Available memory:                   60%
Copy all files:    From memory to card
Print file list . . .

      Press ↑↓←→, ENTER or ESC
```

4) Press Enter.

- If you are copying files to a memory card that contains files, you're asked whether or not you want to overwrite the files on the card. Choose Yes or No.

- If you are copying files to resident memory, and a file with the same name already exists, you are asked if you want to overwrite the existing file. Choose Yes if you want to overwrite the file or No if you don't want to copy that file.

The files are copied to the specified location, and the "All files copied" message displays.

Printing a list of saved files

Use this procedure to print a list of the files stored in either resident memory or on a memory card.

Note: Before using this function, you need to clear all text from the text buffer. Save the text if you want, then press the Clear key.

1) **To print a list of the files stored on a memory card, insert the card in a card slot.**

   Install the card as described in "Installing and removing memory cards" on page 5-2. If cards are installed in both slots, the list of files for the card in the top slot will be printed.

2) **Press the File key on the labeling system keyboard.**
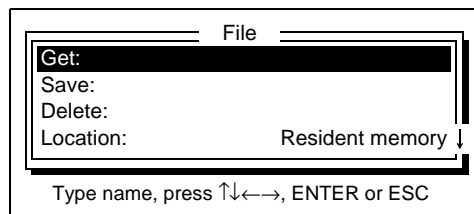
   The File window displays.

```
┌──────────── File ════════════┐
│Get:                          │
│Save:                         │
│Delete:                       │
│Location:       Resident memory ↓│
├──────────────────────────────┤
│ Type name, press ↑↓←→, ENTER or ESC│
└──────────────────────────────┘
```

3) **Use the ↑ or ↓ key to move the cursor to the Location option as shown below. Then use the → key to display either Resident memory or Memory card, depending on which file list you want to print.**

```
┌──────────── File ════════════┐
│Location:       Resident memory ↑│
│Available memory:          60%│
│Copy all files:  From memory to card│
│Print file list . . .         │
├──────────────────────────────┤
│   Press ↑↓←→, ENTER or ESC   │
└──────────────────────────────┘
```
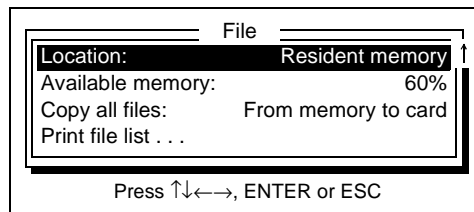
4) **Move the cursor to the Print file list option and press Enter.**

   The list of files is printed on the labeling system using the installed supply. File names are printed in all capital letters, and file extensions are included.

Deleting saved files

Follow these steps to delete a file that was previously saved in resident memory or on a memory card. Once you delete a file, there is no way to get it back again.

1) To delete a file stored on a memory card, insert the card in a card slot.

Install the card as described in "Installing and removing memory cards" on page 5-2. If cards are installed in both slots, you can delete files from the card in the top slot.

2) Press the File key on the labeling system keyboard.

The File window displays.

```
┌══════════════ File ═══════════════┐
│ Get:                               │
│ Save:                              │
│ Delete:                            │
│ Location:            Resident memory ↓│
└────────────────────────────────────┘
    Type name, press ↑↓←→, ENTER or ESC
```

3) Use the ↑ or ↓ key to move the cursor to the Location option as shown below. Then use the → key to display either Resident memory or Memory card, depending on where the file you want to delete is stored.

```
┌══════════════ File ═══════════════┐
│ Location:            Resident memory ↑│
│ Available memory:              60% │
│ Copy all files:     From memory to card│
│ Print file list . . .              │
└────────────────────────────────────┘
        Press ↑↓←→, ENTER or ESC
```

4) Move the cursor to the Delete option shown below.

```
┌══════════════ File ═══════════════┐
│ Get:                               │
│ Save:                              │
│ Delete:                            │
│ Location:            Resident memory ↓│
└────────────────────────────────────┘
    Type name, press ↑↓←→, ENTER or ESC
```

5) Type the name of the file you want to delete (including the extension, such as .OS), or use the ← or → key to display the name of the file.

As you press the ← or → key, the system lists the next file stored in the selected location. Continue pressing the key to scroll through all file names.

6) When the name of the file you want to delete is displayed, press Enter.

If the system couldn't locate the file, a "File not found" message displays. If the file was found, this message displays:

```
┌─────────────────────────────────────┐
│ Are you sure?                    No  │
└─────────────────────────────────────┘
```

7) Choose Yes to delete the file. Choose No if you decide not to delete.

If you chose to delete the file, a "File deleted" message displays after the file has been erased.

Clearing a memory card

Use this procedure to delete *all* files that were previously saved on a memory card. Once you delete the files there is no way to get them back, so be sure you want to erase the files.

1) **Press the Clear key on the labeling system keyboard.**

   The Clear window displays.

   ```
   ═══════════ Clear ═══════════
   All labels
   All labels, restore defaults
   Current label
   Current area                    ↓
   ─────────────────────────────
        Press ↑↓, ENTER or ESC
   ```
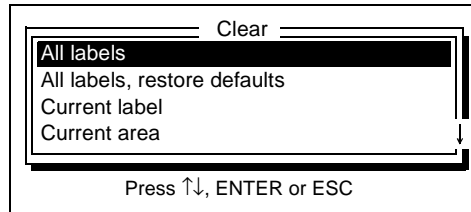
2) **Move the cursor to the Memory card option as shown below and press Enter.**

   ```
   ═══════════ Clear ═══════════
   All labels, restore defaults    ↑
   Current label
   Current area
   Memory card
   ─────────────────────────────
        Press ↑↓, ENTER or ESC
   ```

   This message displays:

   ```
   Insert memory card in top slot.  Press
   Enter to begin or Escape to quit.
   ```
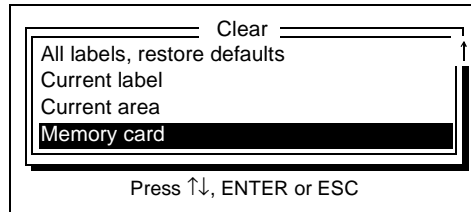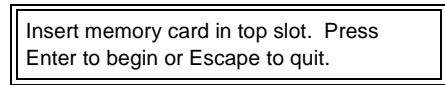
3) **Insert the memory card in the TOP card slot.**

   Install the card as described in "Installing and removing memory cards" on page 5-2.

4) **Press Enter to erase the card.**

   When the "Are you sure" message displays, choose Yes or No. If you choose Yes, the "Memory card cleared" message displays after the card has been erased.

Label Storage

Chapter 6: Using the Printer With a PC

In addition to functioning as a stand-alone system, your labeling system can be connected to a PC and used much like any other printer. This allows you to create labels and signs in PC applications, such as the MarkWare™ application, and to print them directly to your labeling system.

To use your labeling system with a PC, you need to do the following:

• Install and configure the print driver on the PC.

• Install the printer control utility on the PC.

• Connect the PC to the labeling system.

• Turn the labeling system on so that the "On line" message displays (or press the On Line key on the labeling system keyboard to put the system on line). When you start your system, it checks whether or not a keyboard is attached. If a keyboard isn't attached, the system assumes it will be connected to a PC and automatically displays the "On line" message.

Once the labeling system is connected to the PC, you can launch a PC application, create a label and print it on the printer. You can use the printer control utility to control some functions from the PC, such as advancing and cutting the tape on the labeling system.

Requirements

The items you need in order to use your labeling system with a PC are listed below. Contact your labeling system distributor to purchase a kit containing the necessary cable and drivers.

• A PC running Windows 95, Windows 98, ,Windows NT 4.0, or Windows 2000 with an available parallel port and a floppy drive.

• The parallel cable required to connect your labeling system to the PC.

• The print driver.

• The printer control utility.

• PC software that you can use to create labels, such as the MarkWare™ application.

Setting up the print driver

This section describes how to install the labeling system print driver on the PC and how to configure the driver options that apply specifically to the labeling system.

Installing the print driver

Follow these steps to install the labeling system print driver on the PC. If you are installing on a Windows NT system, use this procedure to install the print driver on the PC to which the labeling system will be connected (the print server). To set up the print driver on other network PCs that are running Windows NT 4.0, see "Setting up the print driver on other network PCs running Windows NT" on page 6-9.

1) **Turn on your computer and start Windows. Insert the diskette or CD-ROM containing the print driver into the appropriate drive.**

2) **Click the Start button on the taskbar and click Run.**

3) **In the Run dialog box, type a:\setup.exe and click OK.**

   If you're using a drive other than a:, substitute the letter corresponding to that drive. When you click OK, the installation program is set up and then the Select Printer dialog box displays.

4) **Click the name of your labeling system and click OK.**

5) **In the Select Language dialog box, choose the language in which you want color names displayed and click OK. (This language choice is used only by the MarkWare™ application.)**

6) **If you are prompted to insert the other diskette, remove disk #1, insert disk #2 and click OK.**

   The files are installed.

7) **When you are asked to select the port to which the labeling system will be connected, choose the port and click OK.**

8) **When you're asked if you want the printer you're installing to be the default, click Yes or No. If you choose Yes, applications on this PC will automatically print to the labeling system unless you choose a different printer within an application.**

9) **If you are asked whether or not you want to restart your PC, click Yes or No. If you see this message, you must restart before printing with the driver.**

10) **Click Finish to complete the installation.**

   If you chose Yes in step 9, your PC is restarted. An icon for the labeling system is added to the Printers folder on the PC. You can now configure driver options as described on the next page.

Configuring the print driver

This section describes options that you may need to select or change for the labeling system print driver.

To access the driver, choose Start from the Windows taskbar, then choose Settings and click Printers. Right-click the icon for the labeling system and click Properties to display the driver's property sheet. To get help, click the question mark icon in the property sheet title bar and click the field for which you want help.

The tabs that contain information you may want to change are listed below. Note that the tabs differ depending on the version of Windows you are running.

*   **Details tab** (Windows 95/98) or **Ports tab** (Windows NT)—The default parallel settings shown below can be used for the labeling system print driver.
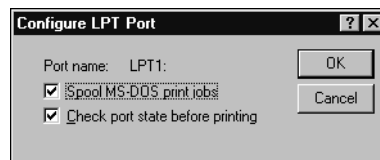
*   **Ports tab** (Windows NT)—To use the labeling system with the MarkWare™ application on PCs running Windows NT on a network, bidirectional communication must be enabled in the driver. On the PC on which you installed the labeling system print driver, select the Enable bidirectional support option as shown below.

Enable bidirectional
support option
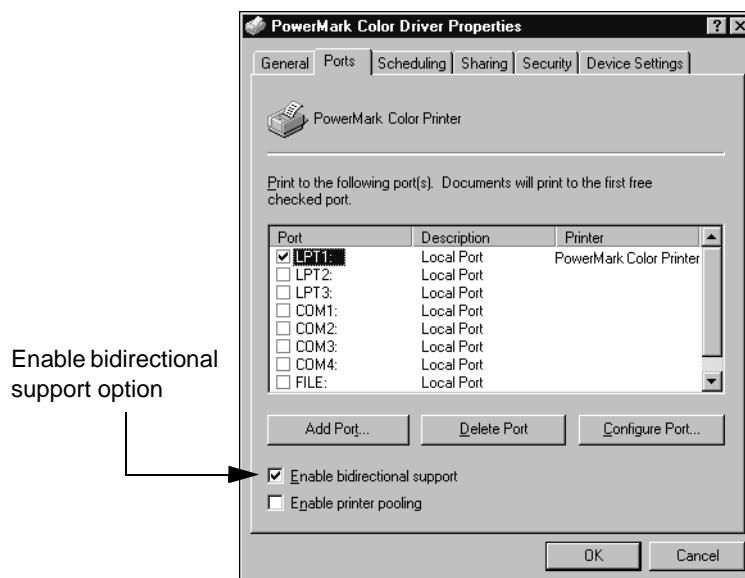
- **Details tab** (Windows 95/98) or **Scheduling tab** (Windows NT)—Use these tabs to configure the driver to start printing after all pages have been spooled. This usually provides the best performance.

  Under Windows 95/98, click the Spool Settings button. Select the Spool print jobs so program finishes printing faster option, then select Start printing after last page is spooled. Under Windows NT, select the Spool print documents so program finishes printing faster option, then select Start printing after last page is spooled.

- **Sharing tab** (Windows NT only)—If you want to use the labeling system with network PCs running Windows NT, you must set up the print driver as a shared printer on the PC on which you installed the labeling system print driver. Select the Shared option on the Sharing tab shown below. (Note that the only operating system supported for sharing is Windows NT 4.0 for x86-based PCs; do not select any of the other operating system options.)
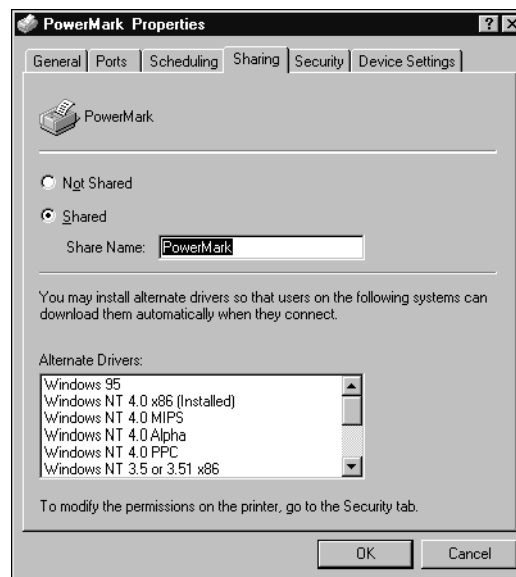
- **Security tab** (Windows NT only)—To use the labeling system with the MarkWare™ application on PCs running Windows NT on a network, you must set up driver permissions so that MarkWare™ users on the network have full control. Click the Permissions button on this tab to display the Printer Permissions dialog box. Select the network user or group to which you want to assign the permission and choose Full Control in the Type of Access list.

If the network PC users will *not* be printing from the MarkWare™ application, you can set the permission to Print.
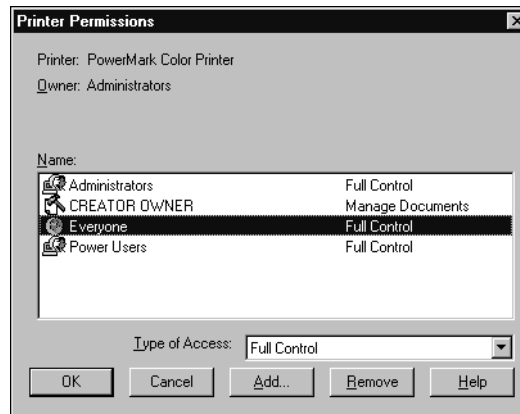
- **Tape and Ribbon tabs** (Windows 95/98) or **Device Options tab** (Windows NT)—These tabs allow you to select the default paper size and orientation for the labeling system. They also allow you to choose the default ribbon and select whether the driver should dither colors when you print with monochrome ribbons.

  The tabs for Windows 95/98 are illustrated on the following pages. Fields are described in the table below each illustration.

Field	What it does
Tape width	Lets you choose the default tape width for the labeling system.
Document length	Allows you to enter the default label length.
Default color	Lets you select the default tape color for the labeling system. This information is used to set up a print job if bidirectional communication cannot be established during printing. If bidirectional communication has been established, the driver ignores this setting and sets up the print job according to the tape actually installed in the system.
Portrait/Landscape	Allows you to choose whether labels will print in the portrait position (longer than they are wide) or in the landscape position (wider than they are long).

Field/Button	What it does
Default ribbon	Lets you choose the default ribbon for the labeling system. This ribbon is used to set up a print job if bidirectional communication cannot be established during printing. If bidirectional communication has been established, the driver ignores this setting and sets up the print job according to the ribbon actually installed in the printer. RGB color values for the colors on the selected ribbon are listed for information only and cannot be changed.
Add New Ribbon	Allows you to add the names of new ribbon colors to the list of available ribbons. (This is similar to adding color names on the labeling system itself; however, names you enter on the labeling system are not transferred to the PC.) To use this feature, turn the labeling system on and install the new ribbon. Click the Refresh button if you installed the new ribbon after you turned the labeling system on. Colors that are already set up in the system are displayed in the dialog box. If a color hasn't been set up, its Name field is blank and you can type a name of your choice.
Print colors	Lets you select whether the driver should print colors as Monochrome (dithered) or Spot color (no dithering). Spot color (no dithering) is the default and allows multiple-color printing with both paneled and monochrome ribbons. The Monochrome (dithered) option allows you to print all colors in the print job with a single monochrome ribbon; if the job contains multiple colors, colors that don't match the installed ribbon color print as dithered shades of the installed ribbon.

Setting up the print driver on other network PCs running Windows NT

Follow these steps to set up the print driver on a Windows NT 4.0 PC to which the labeling system is not connected. This PC will access the labeling system through the Windows NT print server on which you installed the print driver as described in "Installing the print driver" on page 6-3.

1) Click the Start button on the taskbar. Point to Settings, then click Printers.

The Printers folder opens and displays icons for the print drivers already installed on the system.

2) Double-click the Add Printer icon.

You are asked to choose whether the labeling system will be connected to this PC or to another PC on the network.

3) Click the Network printer server option, then click Next.

You need to select the PC to which the printer is attached. The printer must be set up as a shared device as described in "Configuring the print driver" on page 6-4.

4) Select the name of the labeling system for which you installed the print driver and click OK.

5) Click Yes or No to choose whether the labeling system should be the default printer on this PC. If you choose Yes, applications on this PC will automatically print to the labeling system unless you choose a different printer within an application. Click Next.

6) Click Finish.

An icon for the printer you installed appears in the Printers folder window.

Setting up and using the printer control utility

This section describes how to install and use the printer control utility, which allows you to control some labeling system functions from the PC.

Installing the printer control utility

Follow these steps to install the printer control utility:

1) **Turn on your computer and start Windows. Insert the printer control utility diskette or CD-ROM into the appropriate drive.**

2) **Click the Start button on the taskbar and click Run.**

3) **In the Run dialog box, type a:\setup.exe and click OK.**

   If you're using a drive other than a:, substitute the letter corresponding to that drive. When you click OK, the program is set up and the Welcome screen displays.

4) **In the Welcome screen, click Next to continue.**

5) **Click Next to accept the default location for the printer control utility. (Click Browse if you need to first select a different location.)**

6) **Click Next to accept the default program folder in which to install the program icons.**

   The files are copied to your hard drive.

7) **When asked if you want to place an icon for the printer control utility on your PC's desktop, click Yes or No.**

8) **Click Finish to exit the installation program.**

Using the printer control utility

To run the printer control utility, choose PowerMark Printer Control from the Programs folder on the PC's Start menu. The utility checks if the labeling system is on line. If it is not, an error message displays and the application does not open.

When the printer is on line, the main utility window displays as shown in the following illustration. The PC reads information from the labeling system and displays it. The fields and buttons are described in the table on the next page. Choose Exit to close the utility.

> **Note:** Changes you make to settings in the utility overwrite the settings selected on the labeling system. Likewise, setting changes that you make on the labeling system in the future will overwrite the utility settings.

Field/Button	What it does
Get status	Displays the Printer Status dialog box, which lists current labeling system information. This includes tape information (color, width, amount remaining and type), ribbon information (colors and width) and operating system version number. Details are provided for information only, and values cannot be changed here. Click OK to close the dialog box.
Cut	Advances the supply 2.25 inches (57.12 mm), cuts and retracts it. This function ignores the Leader/Trailer Length value set on the labeling system.
Density	Lets you adjust the print density by increasing or decreasing the thermal print energy. Drag the slider to the right if you are seeing incomplete characters, poorly filled text or a poor leading edge line. Drag the slider to the left if the ribbon is bonding to the tape.
Unit of measure	Sets the unit of measure for displaying label length or other length values (such as amount of tape remaining). Choose inches or millimeters, then click the Apply button.
Language	Sets the language in which labeling system menus, prompts and messages display. (Note that this setting does not affect the text in the utility itself.) Choose a language, then click the Apply button.

Connecting the system to a PC

To connect the labeling system to a PC, follow the steps below.

1) Turn off the PC, the labeling system and any devices connected to the PC.

2) Plug the parallel cable into the port on the back of the labeling system.
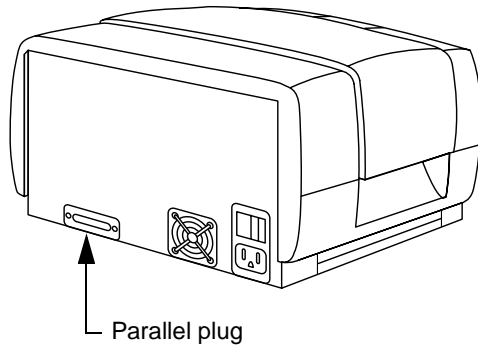
Parallel plug

3) Plug the other end of the cable into a parallel port on the back of the PC.

Be sure to use the parallel port you chose when you installed the driver as described in "Installing the print driver" on page 6-3.

4) Turn on the PC.

5) Disconnect the keyboard from the labeling system and turn the labeling system power switch on.

The labeling system displays the "On line" message to indicate that it is ready to receive information from the PC. You can also put the labeling system on line with the keyboard attached after the labeling system is turned on; to do this, press the On Line key on the labeling system keyboard.

Printing from a PC

Before printing labels from a PC application, be sure you have installed and configured the print driver and printer control utility as described earlier in this chapter. Create your labels in a Windows application, such as the MarkWare™ application, choose the Print command as you normally would, and select your labeling system as the printer.

The printing process works as described in Chapter 4, "Printing." The differences are listed below:

- When you are printing with multiple colors, you are prompted to insert a new color when necessary. The message lists all colors remaining to be printed, and you can install any of the colors in the list.

- The maximum supported label length is 14 inches (355 mm) when the print job contains multiple colors; for single color jobs, the maximum length is 109 inches (2768 mm). If your label is longer than this, the "Page length is too long" message appears.

- If the PC is unable to establish bidirectional communication with the printer, a message prompts you to select the ribbon and tape colors that are currently installed. Choose the colors and click OK. (Note that the colors you select will be used as the defaults as described in "Configuring the print driver" on page 6-4.)

- To cut the tape, change print density or perform other labeling system functions on the PC, refer to "Using the printer control utility" on page 6-10.

Chapter 7: Cleaning and Maintenance

This chapter provides information on procedures you should follow to keep your system running at its best.

Cleaning the system

To keep your system operating at its best, we recommend that you clean the printhead each time you use up a ribbon cartridge. You should also clean the printhead if you experience print quality problems, such as lines, on your labels.

> ⚠ **CAUTION!** Always remove the power plug from the electrical outlet before cleaning the system. Do not use sharp instruments for cleaning.

• Clean the outside surface of the system using mild detergent and a soft cloth. Avoid strong cleaners such as solvents or harsh cleaners as they may damage the system's finish. Do not allow liquid to run between the keyboard keys.

• Use the lint-free (foam-tip) swabs included in the cleaning kit provided with your system and a 90% minimum isopropyl alcohol solution to clean the printhead and platen roller. You need to remove the ribbon cartridge in order to do this.

• Your system is equipped with special wipers designed to keep the ribbon and tape supplies as clean as possible to ensure high-quality output. The wiper pads need to be replaced periodically as they become dirty. We recommend replacing the pads after you use up approximately five rolls of ribbon or tape. Some replacement pads are provided with your system, and you can purchase additional pads from your labeling system distributor.

  Illustrations in "Setting up your system" on page 1-2 show where the wiper pads are located. (Remove the ribbon cartridge to replace the ribbon wiper pad.) To replace a pad, just lift and peel it off the metal plate. Clean the plate with isopropyl alcohol to remove any remaining adhesive. Then remove the backing from a new wiper pad and place it on the metal plate. Place the pad carefully so that it lies flat.

Maintaining the system

Follow these suggestions to maintain your system:

• Turn your system off when you are not using it.

• Store supplies in their original cartons in a cool, dry place. If you don't store supplies in the cartons, stand them on end with the flag end up.

• Keep a ribbon supply cartridge loaded in your system to protect the printhead.

• When handling supplies, avoid touching the tape and ribbon as much as possible.

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