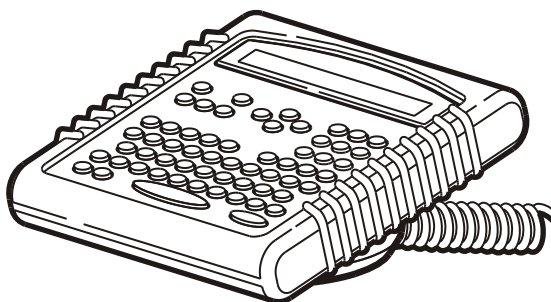


User Manual

Monarch®
9416® XL®, 9825®, 9855®
Printers Intelligent Kit



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WARNING

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CANADIAN D.O.C. WARNING

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.
Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

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INTRODUCTION

1

The Monarch® Intelligent and Industrial Kits allow you to print bar code labels offline using the Monarch® 9416®, 9416® XL®, 9825®, or 9855® printers. For information about supply loading or care and maintenance, refer to the printer's *Equipment Manual* or *Operator's Handbook* on our Web site.

Information in this document supercedes information in previous versions. Refer to our Web site for any updates.

Audience

This manual is for the operator who enters data and prints and applies labels.

Overview

The keyboard may contain up to five preset formats (software order number – 126932) for your data.

- ◆ Format 1 (1.2" width x 1.1" length)
- ◆ Format 2 (1.2" width x 1.1" length)
- ◆ Format 3 (1.2" width x 1.1" length)
- ◆ Format 4 (1.5" width x 2.7" length)
- ◆ Format 5 (1.5" width x 2.7" length)

Using This Manual

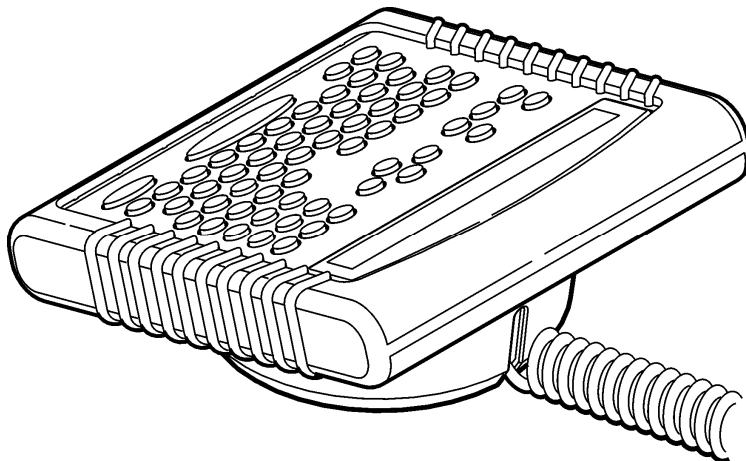
Following is a summary of the contents of this manual.

	Chapter	Contents
1	Introduction	Explains how to connect the cables and use the keyboard.
2	Setting Up the Printer	Configuring the supply type, print mode, ribbon, and other settings for your printer.
3	Printing Labels	Shows examples of the available formats and how to enter data for each one.
4	Troubleshooting	Common problems and their solutions.

Unpacking the Kit Components

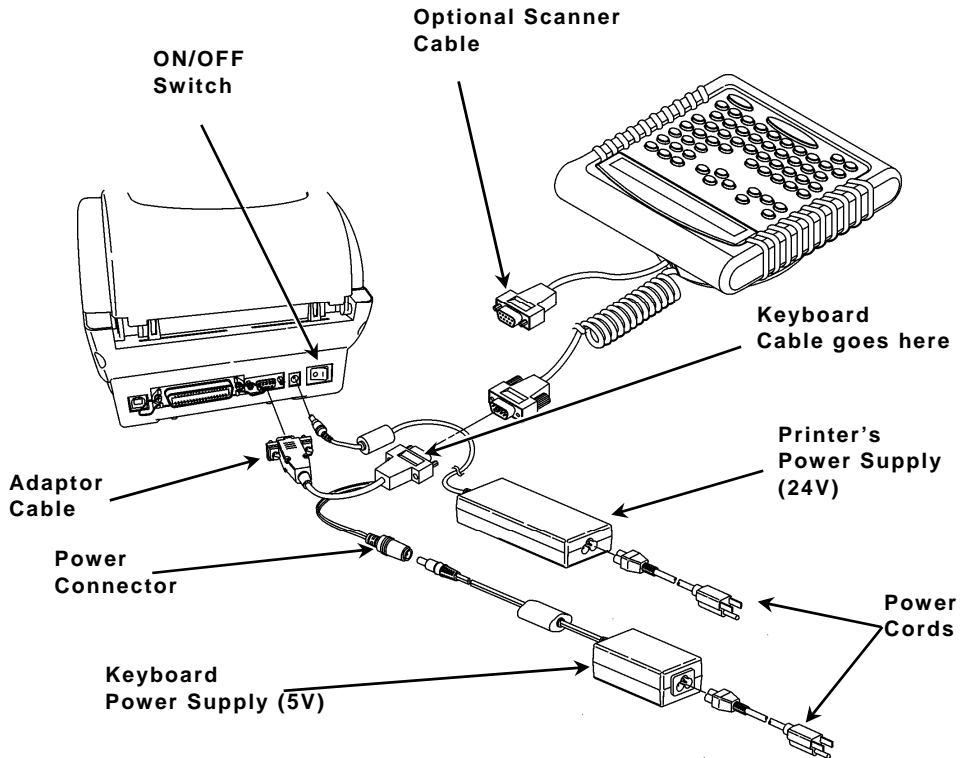
After you unpack the kit, you should have the keyboard, the printer, and a power cord. Depending on the kit ordered, you may have two power supplies and an adaptor cable. Look through all packaging material for parts. Keep the box and packaging material in case an item needs sent in for repair.

1. Pull the long, coiled cable out from the bottom of the keyboard's base.
2. Slide the first loop in the cable slot as shown.



Connecting the 939I to a 9416 Printer

1. Turn **OFF** the printer before you connect the keyboard's cable.
2. Plug the 9-pin coiled keyboard cable into the end of the adaptor cable.

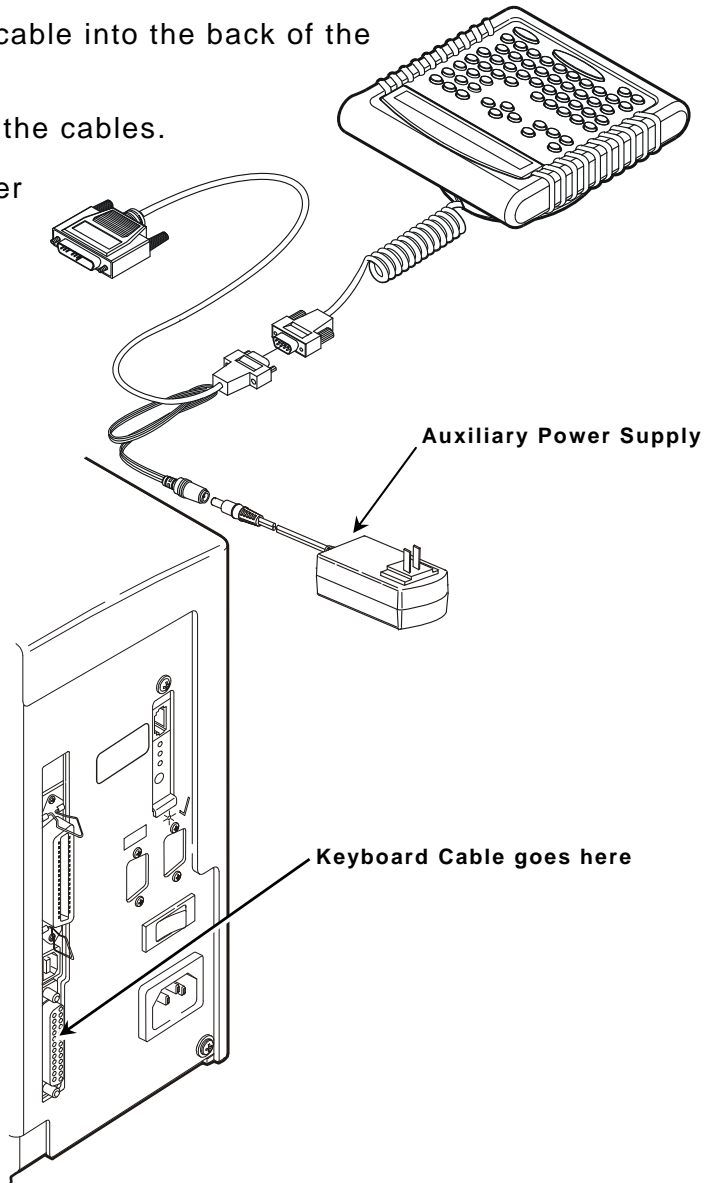


3. Secure the other end of the adaptor cable to the 9-pin port on the printer. Tighten the screws on the cables.
4. Connect the power cord to the power supplies.
5. Connect the power supply (24V) to the printer.
6. Connect the small power supply (5V) to the adaptor cable's power connector.
7. Turn **ON** the printer. The keyboard receives power from the auxiliary power supply (5V).

Connecting the 939I with a Script to a 9800® Printer

When using the keyboard with a script and a 9825, 9855, or 9860 printer, the keyboard receives power from the auxiliary power supply.

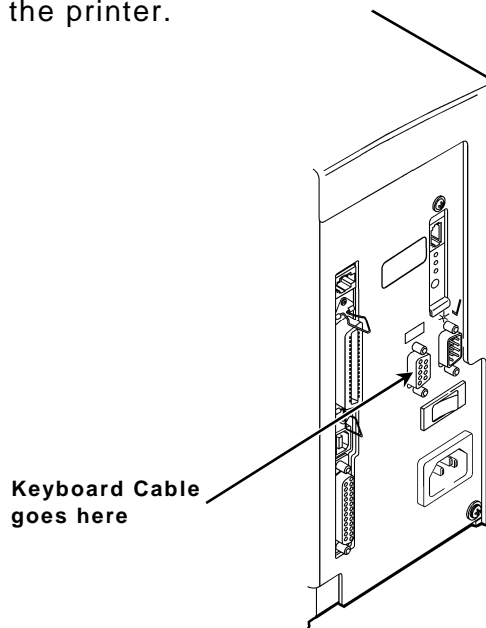
1. Turn **OFF** the printer before you connect the keyboard's cable.
2. Plug the 9-pin coiled keyboard cable into the adaptor cable.
3. Plug the 25-pin serial cable into the back of the printer.
4. Tighten the screws on the cables.
5. Plug the auxiliary power supply into the adaptor cable as shown.
6. Plug the power supply into an electrical outlet.
7. Turn **ON** the printer. On the back of the printer, press (I) to turn on and (O) to turn off the printer.



Connecting the 939I in Terminal Mode to a 9855/9860 Printer

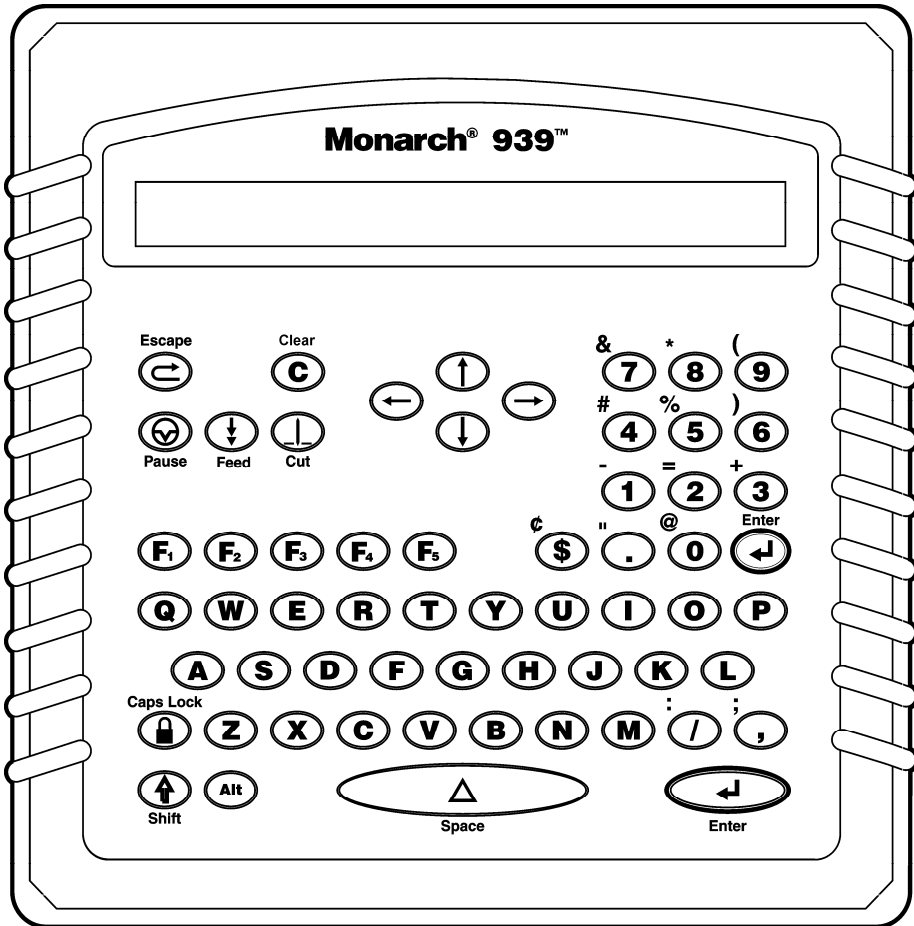
When using the keyboard in terminal mode (no script) with a 9855 or 9860 printer, the keyboard receives power from the printer.

1. Turn **OFF** the printer before you connect the keyboard's cable.
2. Plug the 9-pin coiled keyboard cable into the back of the printer.
3. Tighten the screws on the cable to secure the cable to the printer.
4. Turn **ON** the printer.




















Using the Keyboard

The keyboard has full alphabetic keys with 10 numeric keys, five function keys, four arrow keys, and several special keys.



Control Keys

-  Escape. Returns the display to the previous menu. Also clears an error.
-  Clear. Clears the entire field.
-  Pause. Stops printing.
-  Feed. Feeds a blank label if there is no print job. Prints a label in on-demand mode. Prints a label with error information that is useful to your System Administrator if an error is displayed.
-  Cut. Cuts the supply.
-   Displays menu items and allows you to move the cursor.
-   Moves between fields in Batch Entry.
-  Enter. Selects the displayed menu item.
-  Shift. Toggles between upper and lower-case. Use with other keys to display ¢, ", @, :, ;, -, =, +, #, %, (,), &, *.
-  Caps Lock. Allows you to type all upper-case characters. When the caps lock is on, a padlock symbol is displayed in the upper right hand corner.
-  Returns to the Format Menu or exits the application.
-  Configuration Menu. Allows you to change the printer settings. See Chapter 2, "[Setting Up the Printer](#)" for more information.
-  Reset defaults.
-  Enters an international character for printing when pressed and held along with a character code.
-  Space. Inserts a blank space between characters.

SETTING UP THE PRINTER

2

You must configure the printer before printing formats.
The most common configuration options are listed in the following table:

Option	Choices	Default
Baud Rate	1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200	19200
Format Sending Mode	As Needed/Always	As Needed
Separators	Enabled/Disabled	Disabled
Preloading	Enabled/Disabled	Disabled
Print Mode	Continuous/On Demand	Continuous
Supply Type	Black Mark/Die Cut	Black Mark
Ribbon	With Ribbon/Without	Without

Setting the Baud Rate

To print, you must change the baud rate setting to 9600 from the default setting of 19200.

1. Press **F1** from the Main Menu. You see

```
Exit – Are you
sure? Y/N
```

2. Press **Y**. You see

```
←          MAIN MENU          →
          Scripts
```

3. Press **←** or **→** until you see

```
←          MAIN MENU          →
          Setup
```

4. Press **Enter**. You see

```
          SETUP
          Comm 1          →
```

5. Press **Enter**. You see

```
COMM 1
Baud Rate      →
```

6. Press **Enter**. You see

```
← BAUD RATE →
   19200
```

7. Press ← until you see

```
← BAUD RATE →
   9600
```

8. Press **Enter** to select 9600, then press **Escape** twice until you see the Main Menu.

9. Press → until you see

```
← MAIN MENU
   Exit
```

10. Press **Enter** to save your new settings and return to your application.

Note: You must select **Exit** to save your settings or the keyboard will return to the default settings the next time it is turned on.

Using the Configuration Menu

To access the printer configuration menu:

1. Press **F₂** from the Main Menu. You see

```
-=Config Menu=-      --Esc to exit
1. Format Sending Mode
```

2. Press ← or → to move through the Configuration Menu.

Selecting the Format Sending Mode

There are two Format Sending Modes: As Needed and Always. To send all formats at once, select Always. To send only the correct format, select As Needed. The default is As Needed.

1. From the Config Menu, press ← or → until you see

1. Set Format Sending Mode

2. Press **Enter**. You see

Select format sending mode
1=AS NEEDED, 2=Always >

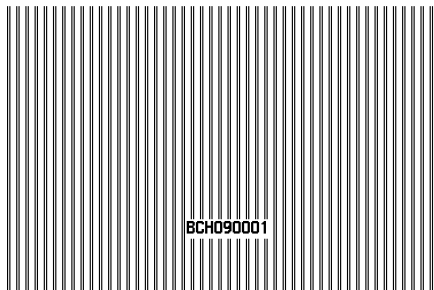
The current setting is displayed in all caps.

3. Press **1** or **2** to select the mode you need. You return to the Config Menu.

Using Batch Separators

A batch separator is an extra label printed in between batches (print jobs) with a pinstripe pattern. Only the 9825 and 9855 printers use this option. For non-indexed supply, the batch separator is always six inches long. The name of the print job is shown on the batch separator.

Note: The 9416 printer does not use batch separators and ignores this setting.



Batch Separator

1. From the Config Menu, press ← or → until you see

2. Set Separators

2. Press **Enter**. You see

Set Batch Separators
1=Enabled, 2=DISABLED >

The current setting is displayed in all caps.

3. Press **1** or **2** to enable or disable the separators. The default is Disabled. You return to the Config Menu.

Using Data Preloading

The Preload Data function keeps any data you enter in memory when enabled. The default is Disabled.

1. From the Config Menu, press ← or → until you see

3. Set Preloading

2. Press **Enter**. You see

Set Data Preloading
1=Enabled, 2=DISABLED >

The current setting is displayed in all caps.

3. Select 1 to retain data. If you press 2, the printer does not keep data you previously entered in memory. You return to the Config Menu.

Setting the Print Mode

There are two print modes: continuous (no peel) and on-demand (peel). Continuous mode prints labels or tags in continuous strips. On-Demand mode separates the backing paper from the label as each label prints.

1. From the Config Menu, press ← or → until you see

```
4. Set Print Mode
```

2. Press **Enter**. You see

```
Select Print Mode  
1=CONTINUOUS, 2=On-Demand >
```

The current setting is displayed in all caps.

3. Press **1** or **2** to select the print mode you need. The default is Continuous. You return to the Config Menu.

Setting the Supply Type

The printer has a black mark/die cut sensor, which it uses to properly calibrate supplies. Determine which type of supply you are using. Black mark supply has sense marks (black marks) on the back of them. Die cut supply does not have any black marks.

1. From the Config Menu, press ← or → until you see

```
5. Set Supply Type
```

2. Press **Enter**. You see

```
Select Supply Type  
1=BLACK MARK, 2=Die Cut >
```

The current setting is displayed in all caps.

3. Press **1** or **2** to select the supply you need. The default is Black Mark. You return to the Config Menu.

Setting the Ribbon

Thermal direct supply does not require a ribbon. Thermal Transfer supply does require a ribbon.

1. From the Config Menu, press ← or → until you see

6. Set Ribbon

2. Press **Enter**. You see

Set Ribbon Value
1=With Ribbon, 2=WITHOUT

The current setting is displayed in all caps.

3. Press **1** or **2** to choose the setting you need. The default is Without. You return to the Config Menu.

Sending the Printer Reset Command

This function resets the printer, which is the same as turning the printer off and then back on. The printer's LED turns amber and then green when the printer returns to Ready mode.

1. From the Config Menu, press ← or → until you see

7. Send Printer Reset

2. Press **Enter**. You briefly see

Command Sent

The printer resets and you return to the Config Menu.

Sending a Virgin Reset Command

A virgin reset sets the printer back to factory defaults.

Note: **Do not** virgin reset the printer. This function is for service use only and deletes any custom configurations from your printer.

Setting the Print Contrast

The print contrast controls the darkness of the printing on your supply. The range is -699 to +699 and the default is 0. The correct print contrast setting affects how well your bar codes scan and how long your printhead lasts.


Note: The specific range for the 9416 printer is -390 to +156. The printer ignores values set outside this range.

1. From the Config Menu, press ← or → until you see



11. Set Contrast

2. Press **Enter**. You see



Enter contrast
[-699/699] +0

3. Press ← or → to change the contrast in increments of 1. Press ↑ or ↓ to change the contrast in increments of 10. Pressing → or ↑ darkens the print; ← or ↓ lightens the print.
4. When you are finished, press **Enter**. You return to the Config Menu.

We recommend you check the bar code print quality with a bar code verifier. If you do not have a bar code verifier or scanner, check the bar code visually. A bar code that is in spec has complete bars, clear spaces, and small alphanumeric characters that look complete. An in spec bar code may not look as good as one that is too dark, but it has the highest scan rate.

BROADWAY SYSTEMS



DAYTON, OHIO

BROADWAY SYSTEMS



DAYTON, OHIO

BROADWAY SYSTEMS

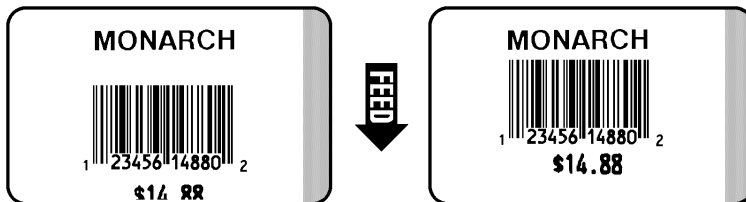


DAYTON, OHIO

Setting the Print Position

This function adjusts where data prints vertically on the supply. Adjust the print if it is too close to the top or bottom of the supply, or overtypes the pre-printed area. The adjustments are in dots (0.0049 inch). The range is -99 to +99 and the default is 0.

- ◆ If the data is too close to the bottom, increase the number.
- ◆ If the data is too close to the top, decrease the number.



1. From the Config Menu, press ← or → until you see

12. Set Print Position

2. Press **Enter**. You see

Enter print pos
[-99/99] +0

3. Press ← or → to change the contrast in increments of 1 dot. Press ↑ or ↓ to change the contrast in increments of 10 dots. Pressing ← or ↓ decreases the value (moves the image down); → or ↑ increases it (moves the image up).
4. When you are finished, press **Enter**. You return to the Config Menu.

Setting the Supply Position

This function adjusts the printer to print at the vertical 0,0 point on the supply.

Note: The supply position adjustment should only be made on initial printer setup. For format adjustments, change the print position.

You may need to adjust the supply in or out to allow supplies to be removed. The adjustments are in dots (0.0049 inch). The range is -300 to +300 and the default is 0.

1. From the Config Menu, press ← or → until you see

13. Set Supply Position

2. Press **Enter**. You see

Enter supply pos
[-300/300] +0

3. Press ← or → to change the contrast in increments of 1 dot. Press ↑ or ↓ to change the contrast in increments of 10 dots. Pressing ← or ↓ decreases the value (feeds less supply); ← or ↑ increases it (feeds more supply).
4. When you are finished, press **Enter**. You return to the Config Menu.

Resetting the Configuration

To change all configurations back to the default settings:

1. From the Main Menu, press **F3**. You see


Reset Defaults – Are you
sure? Y/N

2. Press **Y**. The application returns to the default settings. This may take a few minutes.

When it is finished resetting, you return to the Main Menu.

PRINTING LABELS

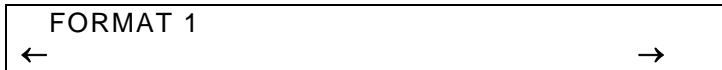
This chapter describes the data entry procedures for each format. Your keyboard may contain custom formats that do not match the ones shown in this manual. Follow the prompts as necessary for entering your data. See your System Administrator for details.



Note: Press  to backspace one character. If you make a mistake entering data, press the **Clear** key to clear the row.

Selecting a Format

You must select a format to print a job.

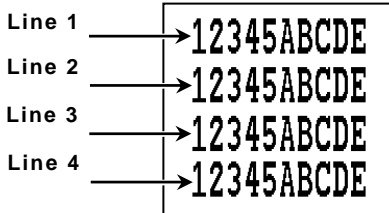
1. Turn **ON** the printer. On the back of the printer, press (I) to turn on and (O) to turn off the printer.



2. Press  or  to select the format you need, then press **Enter**. See the following Format descriptions to enter the data.

Format 1

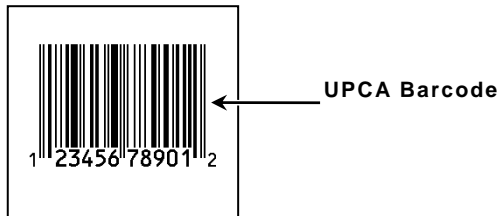
1. Load 1.2" width x 1.1" length supply.
2. Enter the data as prompted:



Prompt	What You Do
<i>LINE 1</i>	Enter up to ten characters. Press Enter .
<i>LINE 2</i>	Enter up to ten characters. Press Enter .
<i>LINE 3</i>	Enter up to ten characters. Press Enter .
<i>LINE 4</i>	Enter up to ten characters. Press Enter .
<i>PRINT QTY</i>	Enter up to three numeric digits. Press Enter .

Format 2

1. Load 1.2" width x 1.1" length supply.
2. Enter the data as prompted:



Prompt	What You Do
<i>UPCA Barcode</i>	Enter up to 12 numeric digits. Press Enter .
<i>PRINT QTY</i>	Enter up to three numeric digits. Press Enter .

Format 3

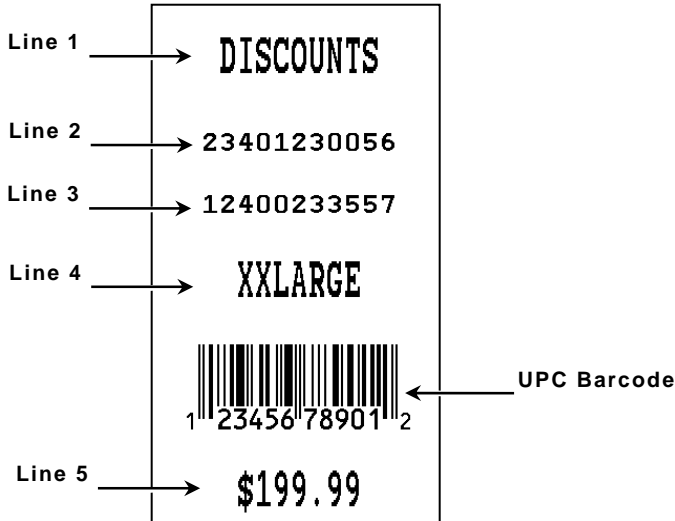
1. Load 1.2" width x 1.1" length supply.
2. Enter the data as prompted:



Prompt	What You Do
<i>LINE 1</i>	Enter up to 12 characters. Press Enter .
<i>UPCA Barcode</i>	Enter up to 12 numeric digits. Press Enter .
<i>LINE 2</i>	Enter up to 12 characters. Press Enter .
<i>PRINT QTY</i>	Enter up to three numeric digits. Press Enter .

Format 4

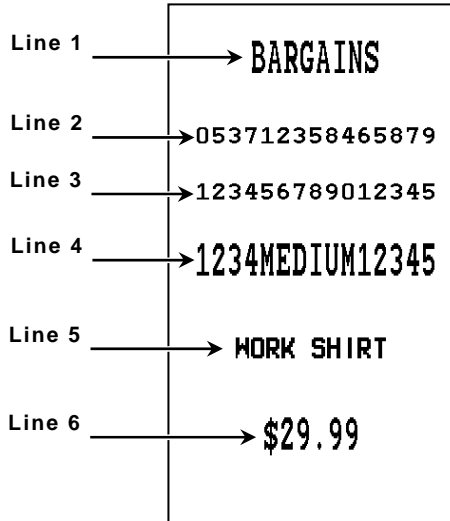
1. Load 1.5" width x 2.7" length supply.
2. Enter the data as prompted:



Prompt	What You Do
<i>LINE 1</i>	Enter up to 15 characters. Press Enter .
<i>LINE 2</i>	Enter up to 15 characters. Press Enter .
<i>LINE 3</i>	Enter up to 15 characters. Press Enter .
<i>LINE 4</i>	Enter up to 15 characters. Press Enter .
<i>UPC BARCODE</i>	Enter up to 12 numeric digits. Press Enter .
<i>LINE 5</i>	Enter up to 15 characters. Press Enter .
<i>PRINT QTY</i>	Enter up to three numeric digits. Press Enter .

Format 5

1. Load 1.5" width x 2.7" length supply.
2. Enter the data as prompted:



Prompt	What You Do
<i>LINE 1</i>	Enter up to 15 characters. Press Enter .
<i>LINE 2</i>	Enter up to 15 characters. Press Enter .
<i>LINE 3</i>	Enter up to 15 characters. Press Enter .
<i>LINE 4</i>	Enter up to 15 characters. Press Enter .
<i>LINE 5</i>	Enter up to 15 characters. Press Enter .
<i>LINE 6</i>	Enter up to 15 characters. Press Enter .
<i>PRINT QTY</i>	Enter up to three numeric digits. Press Enter .

TROUBLESHOOTING

4

Use this chapter to correct some problems that may occur.

Problem	Action
The keyboard display is blank.	Make sure the printer is on and the keyboard cable is attached securely to the printer. If the keyboard was attached while the printer was on, turn the printer OFF and then back ON .
You tried to skip a required field.	This field requires data before continuing to the next field. Enter data and press ENTER .
Letters are not in the expected case.	Make sure the caps lock is not on.
Script is not running.	Turn the printer OFF and then back ON . If this does not solve the problem, call Service.
Optional scanner does not work.	Make sure the scanner has been enabled. Refer to the <i>939i Operating Instructions</i> “ for more information.

Calling Technical Support

If these solutions do not work, call Service at the number listed on the back of this manual.



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