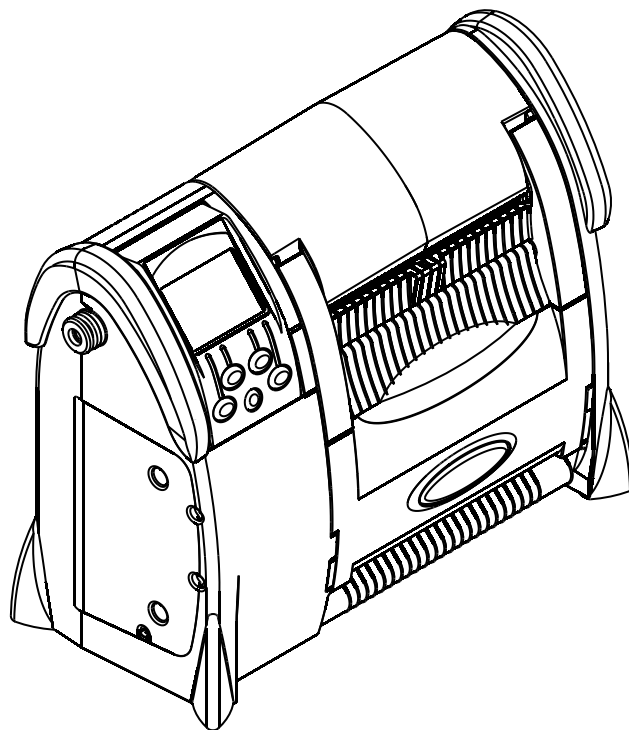


System Administrator's Guide

Monarch® Sierra Sport4™
9493™ Printer



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WARNING

This equipment has been tested and found to comply with the limits for a Class B 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.

RF Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference including interference that may cause undesired operation of the device.

CANADIAN D.O.C. WARNING

This digital apparatus does not exceed the Class B 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 B prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

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Avery Dennison Printer Systems Division
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INTRODUCTION

This *System Administrator's Guide* for the Monarch® Sierra Sport4™ 9493™ printer shows you how to configure your printer and perform diagnostic tests. Review the printer information in the *Operator's Handbook* available on our Web site before you read this manual.

Before you begin, review the safety information in the *Regulatory Compliance* document provided with your printer.

Information in this document supercedes information in previous versions. Refer to our Website for the latest documentation and release information.

Using This Manual

Following is a summary of the contents of this manual:

	Chapter	Contents
1	Introduction	Information you should know before using the printer.
2	Setting Up the Printer	Using the setup menu to adjust the supply and printer settings.
3	Using Diagnostics	Using printer diagnostics to print test labels, check sensors, view inches printed, etc.
A	Appendix	Serial and USB cable information.

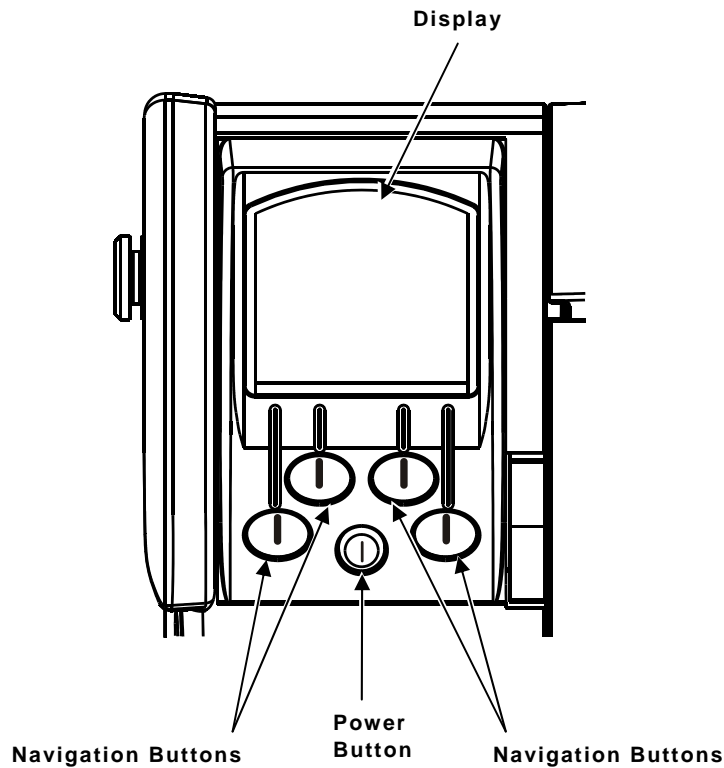
Audience

This *System Administrator's Guide* is for the person who sets up and configures the printer.



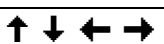











Refer to the *Network System Administrator's Guide* (TC9460SNPSA) available on our Web site for information on setting up your network printer.

Using the Display and Buttons

- ① The power button turns the printer on and off.
- ② Four navigation buttons select options on the display.





The following table describes the icons you may see on the display:

When you see	Press the navigation  button under the icon as described
	Selects (enters) the displayed menu or option.
	Scrolls through the options in the direction indicated by the arrow.
	Enters the main menu.
	Feeds the supply.
	Enters the Pause screen.
	Returns to the Ready screen.
	Reprints the last batch. The reprint batch feature is optional.
	Turns the backlight on and off.
	Rotates the display 180°.
	Press both left navigation buttons to delete the selected character.
	Press both right navigation buttons to insert a new character.
	Clears an error and exits the current option without saving changes.
	Returns to the previous menu.



Selecting an Option

- ◆ When the display shows a down arrow, press  under  to scroll down through the list of options.








- ◆ When the displays shows an up arrow, press  under  to scroll up through the list of options.



- ◆ When the option you want is highlighted, press  under  (enter) to select it.

Exiting an Option

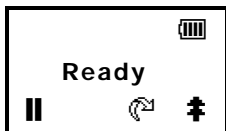
To exit an option, press  under  once. You return to the previous menu. When you press  or , you lose any entries you have made since the last time you pressed .

Printing

The host sends online packets containing print jobs to the printer.

1. Turn on the printer.



The display flashes printer version information, battery charging status, and then you see



2. Download a format and a batch.

For information on creating packets and downloading print jobs, refer to the *Packet Reference* manual available on our Web site.

The printer prints either a strip of supplies (non-peel mode) or one at a time (peel/on-demand mode).

- Note:** Before you start printing a new batch, you can reprint the last batch. Press  under  to reprint the last batch. If your last batch contained 10 labels, pressing this button reprints the previous batch of 10 labels. The reprint batch feature is optional.

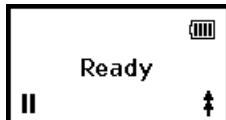
3. Remove the printed supplies.



Selecting a Language

You can change the printer's messages to English, French, German, Spanish, Chinese, or Japanese.

1. Turn on the printer.

The display flashes printer version information, battery charging status, and then you see



2. Press  under . You see the Pause screen.




3. Press  to enter the main menu.







4. Press  to highlight **Language**.



5. Press  to select **Language**.



A checkmark indicates the current setting.

6. Press  or  to scroll through the options.
7. When the option you need is displayed, press  to enable the option or press  to cancel without saving changes. You return to the main menu.

SETTING UP THE PRINTER

2

This chapter explains how to use the Setup menu to configure the printer.


1. Turn on the printer by pressing .

The display flashes printer version information, battery charging status, and then you see




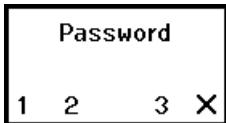
2. Press  under . You see the Pause screen.




3. Press  to enter the menu.



4. Tools is highlighted. Press  to select **Tools**.



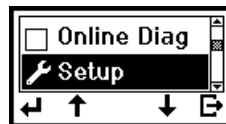
5. Press  under the corresponding number to enter the following default password:


1, 1, 1, 3, 1

You see



6. Press  until Setup is highlighted.



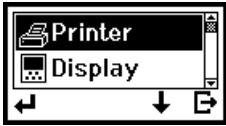
7. Press  to select **Setup**.


You are now in the Setup menu.

Printer

Use this menu to change your printer's contrast, print positions, ribbon settings, and to select a stock sensor.

From the Setup menu, select **Printer**.



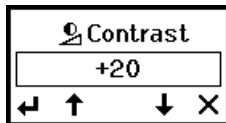
To exit, press  until you return to the Pause menu.





Contrast

Contrast controls the darkness of the printing on your supply. The range is -99 to 99. The default is 00.

You may need to adjust your contrast based on the type of supplies you are using. Synthetic supplies may need a higher contrast setting. Receipt paper requires a lower contrast setting. For synthetic supplies, you must select High Energy from the Ribbon Setup menu.

1. From the Printer menu, select **Contrast**.



2. Press  or  to decrease or increase the contrast in one-step increments. Hold down the buttons to decrease or increase in five-step increments.
3. When the setting you need is displayed, press  to save the setting or press  to cancel without saving changes. You return to the Printer Setup menu.

Ribbon





Use this option to enable or disable the ribbon based on the type of supplies you are using. The printer supports thermal direct, thermal transfer, or high-energy supplies.

Use the None setting for thermal direct supplies (do not require a ribbon). Use the High Energy setting for synthetic thermal transfer supplies. Use the Standard setting for standard thermal transfer supplies, such as tags, labels, or receipt paper. The default is Standard.

1. From the Setup menu, select **Printer, Ribbon**.



A checkmark indicates the current setting.

2. Press  or  to display the setting you need.
3. Press  to save the setting or press  to cancel without saving changes. You return to the Printer Setup menu.

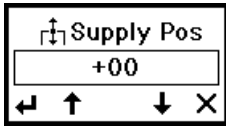
Adjusting the Supply Position

Use this option to adjust how much of a label or tag feeds out of the printer.

The range is -10 to 99. The default is 00. You may need to adjust the supply in or out to allow

- ♦ tags and labels to be removed.
- ♦ die cut labels to be removed easily.

1. From the Printer Setup menu, select **Supply Pos**.



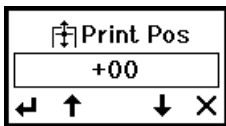
2. Press **↓** or **↑** to decrease or increase the amount of supply that feeds out of the printer in one-step increments. Hold down the buttons to decrease or increase in five-step increments.
3. When the setting you need is displayed, press **←** to save the setting or press **X** to cancel without saving changes. You return to the Printer Setup menu.

Adjusting the Print Position

Use this option to adjust where data prints vertically on the supply.

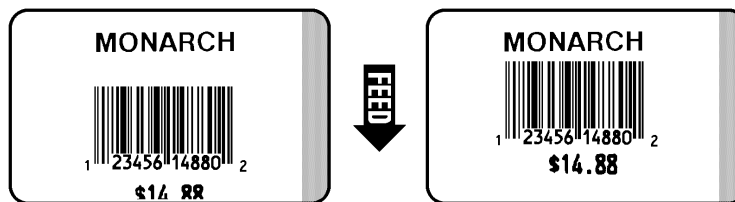
The range is -99 to +99. The default is 0. Adjust the print if it is too close to the top or the bottom of the supply, or overtypes a pre-printed area.

1. From the Printer menu, select **Print Pos**.



2. Press **↓** or **↑** to decrease or increase the setting in one-step increments. Hold down the buttons to decrease or increase in five-step increments.

Decreasing the value moves the printed data toward the bottom of the supply (in the feed direction), increasing the value moves the printed data toward the top of the supply (opposite the feed direction).

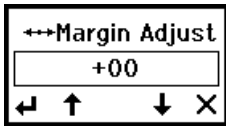


3. When the setting you need is displayed, press **←** to save the setting or press **X** to cancel without saving changes. You return to the Printer Setup menu.

Setting the Margin Adjust

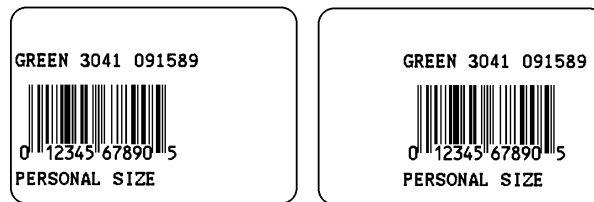
Use this option to adjust where the format prints horizontally on the supply. The range is -99 to +99. The default is 00. Adjust the print if it is too close to the left or right of the supply, or overtypes a pre-printed area.

1. From the Printer Setup menu, select **Margin Adj.**



2. Press **↓** or **↑** to decrease or increase the setting in one-step increments. Hold down the buttons to decrease or increase in five-step increments.

Decreasing the value moves the printed data to the left, increasing the value moves the printed data to the right.



3. When the setting you need is displayed, press **↵** to save the setting or press **X** to cancel without saving changes. You return to the Printer Setup menu.

Enabling the Demand Sensor

Use this option to enable or disable the on-demand sensor.

When the demand sensor is

- ◆ disabled, printing is activated by pressing **↑**.
- ◆ enabled, printing is automatic when the previously printed supply is removed.

To set the on-demand sensor:

1. From the Printer Setup menu, press **↓** or **↑** until **Demand Sensor** is highlighted.
2. Press **↵** to enable or disable the on-demand sensor.



A checkmark appears when the sensor is enabled.

3. Press **↵** to return to the Printer Setup menu.

Setting the Stock Sensor

Use this option to set the sensor for die cut, black mark, or non-indexed (continuous) supplies. The default is black mark. Select the correct sensor for the supply type you are using.

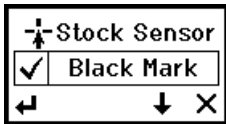
Select the:

- ◆ Die-cut sensor for die cut supplies (labels on a liner with gaps between the labels).
- ◆ Black mark sensor for black mark supplies (supplies with rectangular marks on the back side of the liner or on the supply).
- ◆ Non-indexed sensor for non-indexed (continuous) supplies *without* a black mark or perforations.

Note: If you have die cut supplies with black marks, select the black mark sensor.

Enabling a sensor

1. From the Printer Setup menu, select **Stock Sensor**.



A checkmark indicates the current setting.

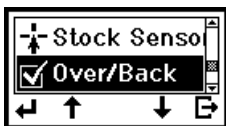
2. Press **↓** or **↑** until you see the sensor you need.
3. Press **←** to save the setting or press **X** to cancel without saving changes. You return to the Printer Setup menu.

Over/Back

You must enable the Over/Back option to use overfeed and backfeed.

The default is disabled. When this option is enabled, use the Overfeed and Backfeed menu options to set the distance for each option.

1. From the Printer Setup menu, press **↓** or **↑** until **Over/Back** is highlighted.
2. Press **←** to enable or disable overfeed and backfeed.



A checkmark appears when overfeed and backfeed are enabled.

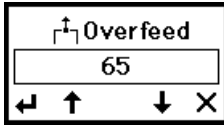
Refer to the *Packet Reference* manual for more information about overfeed and backfeed.

Overfeed

Overfeed sets the distance in dots that the supply feeds out past the printer after printing so labels can be removed more easily. A dot is approximately 0.005 inches. The range is 10 to 200 dots. The default is 65 dots (0.34 inches).

Note: The overfeed distance should match the backfeed distance. Refer to the *Packet Reference* manual for more information on using these options.

1. From the Printer Setup menu, select **Overfeed**.



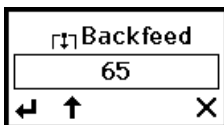
2. Press **↓** or **↑** to decrease or setting in one-step increments. Hold down the buttons to decrease or increase in five-step increments.
3. When the setting you need is displayed, press **↵** to save the setting or press **X** to cancel without saving changes. You return to the Printer Setup menu.

Backfeed

Backfeed sets the distance in dots to move the supply backwards underneath the printhead before printing. This moves the print closer to the edge of your supplies. A dot is approximately 0.005 inches. The range is 10 to 200 dots. The default is 65 dots (0.34 inches).

Note: The backfeed distance should match the overfeed distance. Refer to the *Packet Reference* manual for more information on using these options.

1. From the Printer Setup menu, select **Backfeed**.



2. Press **↓** or **↑** to decrease or increase the setting in one-step increments. Hold down the buttons to decrease or increase in five-step increments.
3. When the setting you need is displayed, press **↵** to save the setting or press **X** to cancel without saving changes. You return to the Printer Setup menu. Press **⏪** to return to the Setup menu.

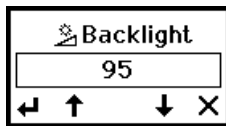
Display

Use this menu to change the display contrast and backlight settings.

Contrast

This option adjusts the display contrast depending on your viewing angle. The range is 0 to 100. The default is 50.

1. From the Setup menu, select **Display, Contrast**.

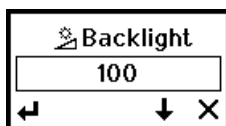


2. Press **↓** or **↑** to decrease or increase the setting. The contrast changes in five-step increments.
3. When the setting you need is displayed, press **←** to save the setting or press **X** to cancel without saving changes. You return to the Display Setup menu.

Backlight

Use this option to adjust the brightness level of the backlight. The range is 0 to 100. The default is 100. To turn the backlight on and off, see Chapter 1, "Using the Display and Buttons."

1. From the Setup menu, select **Display, Backlight**.



2. Press **↓** or **↑** to decrease or increase the setting. The brightness changes in five-step increments.
3. When the setting you need is displayed, press **←** to save the setting or press **X** to cancel without saving change. You return to the Display Setup menu.

Power Management

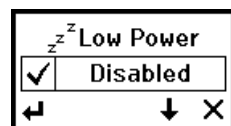
Use this menu to set the amount of time before the printer automatically shuts down to conserve power.

Low Power (Sleep Mode)

When the printer is inactive for one minute, it goes into low power mode, or sleep mode. During sleep mode, the printer is not operational and a coffee cup icon (☕) appears on the display. To wake the printer from sleep mode, press any button except the power (Ⓜ) button or send a print job.

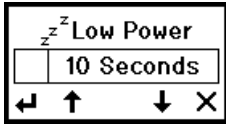
The default is disabled. However, you can set the printer to go into sleep mode after 10 seconds or up to one hour.

1. From the Setup menu, select **Power Mgmt.**
2. Select **Low Power**.



A checkmark indicates the current setting.

3. Press **↓** or **↑** until you see the setting you need. For example:



4. Press **⏻** under **←** to save the setting or press **⏻** under **X** to cancel without saving changes. You return to the Setup menu.

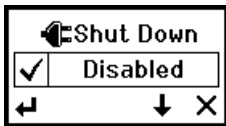
Shut Down

You can set the printer to automatically shut down (turn off) completely after the printer has been in sleep mode for a selected period of time. To continue using the printer, press **⏻** to turn it back on.

The default is disabled (the printer does not automatically shut down). However, you can set the printer to shut down after being in sleep mode for 10 seconds or up to one hour.

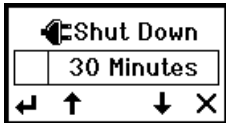
Note: Low Power mode *must* be enabled to use Shut Down mode.

1. From the Setup menu, select **Power Mgmt.**
2. Select **Shut Down.**



A checkmark indicates the current setting.

3. Press **↓** or **↑** until you see the setting you need. For example:



4. Press **⏻** under **←** to save the setting or press **⏻** under **X** to cancel without saving changes. You return to the Setup menu.

Serial Port

Use this menu to set the serial port communication values. These values provide the link for normal online printing.

You need to set the printer's serial communication values to match your computer's online communications.

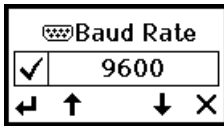
The serial communication values are shown below.

Option	Choices	Default
Baud Rate	1200/2400/4800/9600/ 19200/38400/57600/115200	9600
Data Bits	7 Bits/8 Bits	8 Bits
Parity	None/Odd/Even	None
Stop Bits	1 Bit/2 Bits	1 Bit
Flow Control	None/DTR/RTS/Xon/Xoff/Special	DTR

Baud Rate

Use this option to set the printer's baud rate in bits per second (BPS). The default is 9600. Make sure the printer settings match those at the host.

1. From the Setup menu, select **Serial Port, Baud Rate**.



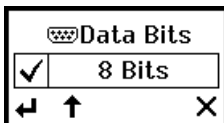
A checkmark indicates the current setting.

2. Press **↓** or **↑** until you see the setting you need.
3. Press **←** to save the setting or press **X** to cancel without saving changes. You return to the Serial Port Setup menu.

Data Bits

Use this option to set the printer's data bits. The default is 8 bits. Make sure the printer settings match those at the host.

1. Select **Data Bits**.



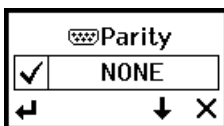
A checkmark indicates the current setting.

2. Press **↓** or **↑** until you see the setting you need.
3. Press **←** to enable the setting or press **X** to cancel without saving changes. You return to the Serial Port Setup menu.

Parity

Use this option to set the printer's parity. The default is None. Make sure the printer settings match those at the host.

1. Select **Parity**.



A checkmark indicates the current setting.

2. Press **↓** or **↑** until you see the setting you need.
3. Press **←** to save the setting or press **X** to cancel without saving changes. You return to the Serial Port Setup menu.

Stop Bits

Use this option to set the printer's stop bits. The default is 1 bit. Make sure the printer settings match those at the host.

1. Select **Stop Bits**.



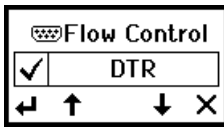
A checkmark indicates the current setting.

2. Press **↓** or **↑** until you see the setting you need.
3. Press **←** to save the setting or press **X** to cancel without saving changes. You return to the Serial Port Setup menu.

Flow Control

Use this option to set the printer's flow control. The default is DTR. Make sure the printer settings match those at the host.

1. Select **Flow Control**.



A checkmark indicates the current setting.

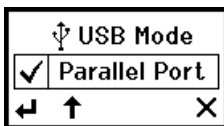
2. Press **↓** or **↑** until you see the setting you need.
3. Press **←** to enable the setting or press **X** to cancel without saving changes. You return to the Serial Port Setup menu.

USB Mode

Use this option to set the printer's USB mode. The USB port functions as a serial port or a parallel port. The default is parallel port.

Note: Serial mode for Service only.

1. From the Setup menu, select **USB Mode**.



A checkmark indicates the current mode.

2. Press **↓** or **↑** until you see the mode you need.
3. Press **←** to save the setting or press **X** to cancel without saving changes. You return to the Setup menu.

Network

If you have a network printer, refer to the *Network System Administrator's Guide* available on our Web site and on the documentation CD-ROM included with your printer for information about configuring your network settings.

Bluetooth®

Bluetooth® wireless technology is a low-power consuming way to communicate between devices. It has a maximum range of 30 feet (10m). The Bluetooth device connects to your printer's serial port and conforms to version 2.0 of the Bluetooth specification.

The printer defaults to receiving unencrypted data for the Bluetooth device. Refer to the *Bluetooth Installation Guide* (TC7510IG) included with your Bluetooth module for more information on configuring your printer for Bluetooth.

Defaults

The following defaults are set in the Bluetooth printer:

Function	Default
Security	none
PIN	0
Local Name	MONARCH PRINTER

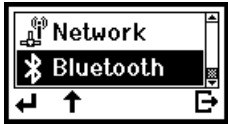
Changing the Communication Settings

To communicate with the Bluetooth device, make sure the communication values are set to 9600, N, 8, 1, None. See "Serial Communications" earlier in this chapter for more information.


Bluetooth Settings

Use this menu to enable or disable Bluetooth security, change the PIN, modify the local name, view the local address, and print Bluetooth information labels.

From the Tools, Setup menu, select **Bluetooth**.



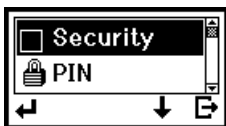
"Reading Bluetooth Settings" appears briefly on the display, then you see the Bluetooth menu.


If your printer is not a Bluetooth printer and you try to access the Bluetooth menu, "Read Error" appears on the display. Press  to return to the Setup menu.

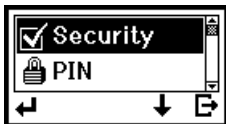
Enabling the Security

Use this option to enable or disable Bluetooth security.

1. From Setup menu, select **Bluetooth**. Security is highlighted.



2. Press  to enable or disable security.



A checkmark appears when security is enabled.

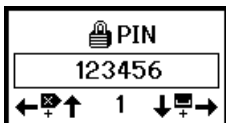
If security is enabled, you need to set a PIN. See "Changing the PIN," for more information.








Changing the PIN

Use this option to set the Bluetooth PIN. The PIN can be up to 15 characters: 0 to 9. Even though a space character is displayed while you scroll through the values, the PIN cannot contain a space.

If security is enabled, you need to set a PIN. If security is disabled, you do not need to set a PIN.

1. Select **PIN**. The previous PIN value appears, for example:



2. Press  or  to increase or decrease the highlighted number. Press  or  to highlight a different number.
3. When you are finished, press  until you see . Then, press  to save the setting. "PIN Changed" appears briefly on the display and you return to the Bluetooth menu.

If you need to clear digits from your PIN, make the second digit a space, save the setting, and then select **Change Pin** again.

Only your first digit was saved, because the space is a terminating character.

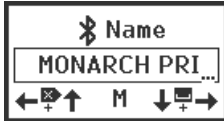
Name

Use this option to view and set the Bluetooth local name. The name can be up to 15 characters: upper-case letters A to Z, numbers 0 to 9, and the space character.

The name is used for identification purposes with the host, not authentication. You should use a logical name for each printer, such as "warehouse", "receiving dock", etc.

1. Select **Name**.

The default or last-saved local name appears, for example:



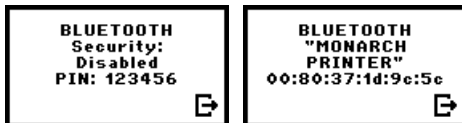
2. Press **↓** or **↑** to change the highlighted letter. Press **←** or **→** to highlight a different letter.

3. When you are finished, press **→** until you see **↵**. Then, press **↵** to save the setting. "Name Changed" appears briefly on the display and you return to the Bluetooth menu.

Press **X** to exit without saving changes.

Info

This option displays the security and PIN settings. Press **↵**. The next screen displays the local name and address of your Bluetooth printer.



Press **↵** again to return to the Bluetooth menu.

Printing Info

Use this option to print a Bluetooth information label.

1. Select **Print Info**.

"Reading" appears briefly on the display and then a Bluetooth information label prints.

The Bluetooth Information label prints the security setting, the PIN, the local name, and the address of the Bluetooth device.

Note: The Bluetooth information label also prints as a third test label when you select **Tools, Diagnostics, Printer, Test Label, Diag Label**.

2. You return to the Bluetooth menu.

3. "Please wait updating" appears briefly on the display.

```
Security Disabled
PIN:
123456
Name:
MONARCH PRINTER
Address:
0850123abc2
```

Interpreter

The printer supports both MPCL and MLI (Monarch Language Interpreter™) data. The default is MPCL. To configure the printer to receive MLI data, refer to the *MLI Quick Reference* available on our Web site and on the documentation CD-ROM included with your printer.

This chapter explains how to use the Tools, Diagnostics menu. Only System Administrators should perform these tests. You can view test results but you cannot change any of the settings. If there is a problem with the printer, give the results of these tests to Service.


Diagnostics

The Diagnostics menu helps diagnose problems with the printer.

1. Turn on the printer by pressing .

The display flashes printer version information, battery charging status, and then you see



2. Press  under **II**. You see the Pause screen.

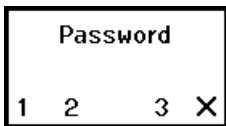



As you use the printer, the battery indicator line gets closer to E (empty), instead of F (full). Recharge the battery when the line is by the E.

3. Press  to enter the main menu.



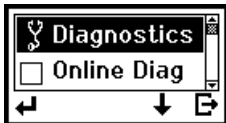
4. Tools is highlighted. Press  to select **Tools**.



5. Press  under the corresponding number to enter the following default password:

1, 1, 1, 3, 1

You see



6. Diagnostics is highlighted. Press  to select **Diagnostics**.

You are now in the Diagnostics menu.

Printer

Use this menu to print a test label, check the sensors, printhead, battery, and view totals.

Test Label

This option allows you to print three different types of test labels: diagnostic labels, the test pattern, and the grey scale test label.

1. From the Diagnostics menu, select **Printer, Test Label, Diag Label**. Two diagnostic labels print and you return to the Test Label menu.

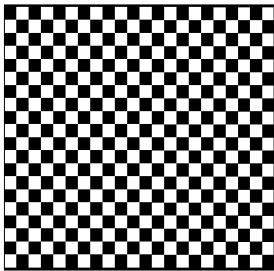
```
MONARCH
Version: 1.0
A,0,0,0,0,0; B,0,1,0,0,0;
C,0,0,0,30,0,0;
D,1,0,2;
E,{,,",,},~,^,--,0d/Oa;
F,3,1,0,0,1;
G,0,65,65;
H,D,R,635; H,F,R,635;
M,I,R,1285; M,R,R,635;
M,T,R,10; M,V,R,10235;
```

```
MONARCH
Version: 1.0
TOTAL INCHES: 0000119
HI ENERGY INCHES: 0000000
VOLTAGE: 15.79
CONTRAST POT: N/A
PH RESISTANCE: (0832) 0481
BAD DOTS: 000
MEMORY: 32768KR/32768KN
OPTIONS: --
SMID: 127654
```

The first label shows the printer's configuration by packet (A-M). Refer to the *Packet Reference* manual available on our Web site for more information.

The second label shows the model number, software version, total number of inches printed, number of high-energy inches printed, voltage, contrast, printhead resistance, number of bad dots, memory, and any options.

2. Select **Test Pattern**.

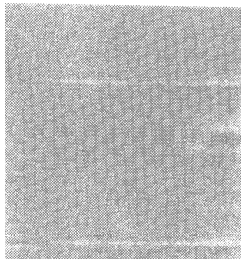


A test pattern label prints and verifies the dots on the printhead are working. You return to the Test Label menu.

If your printed sample has fewer lines or no lines, keep the sample and call Service.

Note: You may receive a "Memory Full" error if you are using MPCL because you need to reallocate memory. Refer to the *Packet Reference* manual for more information.

3. Select **Grey Scale**.



Label with voids

A grey scale label prints to check the uniformity of the printing. You return to the Test Label menu.

The test sample should be uniformly grey across the supply.

If you see voids, especially on the edges, save your sample and call Service.

Note: You may receive a "Memory Full" error if you are using MPCL because you need to reallocate memory. Refer to the *Packet Reference* manual for more information.

4. Select **MIF Info**.

MIF stands for Monarch Initialization Files. MIF files specify custom settings for the printer.

A test label prints displaying the settings for the printer. The line beginning with SWID shows the software control number for the firmware or if a Customer MIF file is loaded. If there is no MIF file, you see the SWID for the printer application firmware and "No MIF" when you try to print a test label.

You return to the Test Label menu.

5. Press **↩** to return to the Diagnostics menu.

Sensors

Use this option to view the black mark, die cut, and on-demand sensor settings.

1. From the Diagnostics menu, select **Printer, Sensors, Black Mark**.

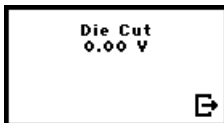


The acceptable range is between .02 to 5 volts and the volt reading changes as the supply moves past the sensors.

The count changes by at least 1.0 volts when a black mark is under the sensor. If you do not notice at least a 1.0 volt difference, you may need to call Service.

2. Press **↩** to return to the Sensors menu.

3. Select **Die Cut**.

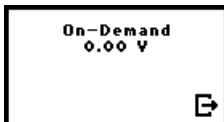


The acceptable range is between .02 to 5 volts and the volt reading changes as the supply moves past the sensors.

The count changes by at least 1.0 volts as supply moves past the sensor from liner to label to liner. If you do not notice at least a 1.0 volt difference, you may need to call Service.

4. Press **↩** to return to the Sensors menu.

5. Select **On-Demand**.



The acceptable range is between .02 to 5 volts and the volt reading changes as the supply moves past the sensors.

The count changes by at least 1.0 volts when a label is over the sensor. If you do not notice at least a 1.0 volt difference, you may need to call Service.

6. Press **↩** until you return to the Diagnostics menu.


Printhead

Use this option to check the printhead for bad dots, view the printhead dot resistance and the printhead temperature.

1. From the Diagnostics menu, select **Printer, Printhead, Dot Test**.




To print, the number of bad dots must be less than 10. If you have more than 10 bad dots, call Service.

2. Press  to return to the Printhead menu.
3. Select **Dot Resist**.




The acceptable range is between 455 Ohms and 495 Ohms. If the resistance is not in this range, call Service.

4. Press  to return to the Printhead menu.
5. Select **Temperature**.



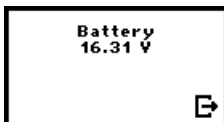
To print, the printhead temperature must be less than 60°C (140°F). The temperature is displayed in Celsius.

6. Press  until you return to the Printer menu.


Battery

Use this option to check the battery voltage.

1. From the Printer menu, select **Battery**.



To print, the voltage must be greater than 12 volts.


2. Press  to return to the Printer menu.

View Totals


Use this option to view the totals for printer inches, service inches, printer high energy inches, and service high energy inches. The high energy printing is used for linerless or synthetic labels.

1. From the Printer menu, select **Totals, Print Inch.**




2. Press  to return to the Totals menu.
3. Select **Service Inch.**




4. Press  to return to the Totals menu.
5. Select **Prt High In.**



6. Press  to return to the Totals menu.

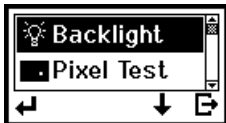



7. Select **Ser High In.**
8. Press  until you return to the Diagnostics menu.

Display

Use this menu to see if the backlight is working or if pixels are missing on the display.

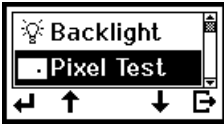
1. From the Diagnostics menu, select **Display, Backlight.**



2. Press . The backlight switches on and off and stops at the current setting (on or off).

Note: To turn the backlight on and off, see Chapter 1, "Using the Display and Buttons."

3. Select **Pixel**.



Each dot on the display is called a pixel. The display shows all pixels on (black screen) and then off (blank screen). You return to the Display menu.



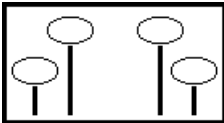
If one or more pixels are not working properly, call Service.

4. Press **↵** to return to the Diagnostics menu.

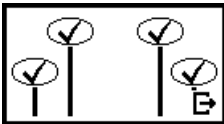
Keypad

Use this menu to see if the buttons on the keypad are working properly.

1. From the Diagnostics menu, select **Keypad**.



2. Press each button one at a time except for **Ⓞ** (power). The four boxes on the display represent a button. If the buttons are working correctly, a checkmark appears in the box.



If a checkmark does not appear in one of the boxes, that button is not working properly. Call Service.

3. Press **↵** to return to the Diagnostics menu.

Serial Port

Use this test to check the communications port and cable. You need a loopback plug for this test. The loopback plug can be purchased at your local electronics store. See Appendix A, "Specifications" for cable pin-out information.

1. From the Diagnostics menu, select **Serial Port**.



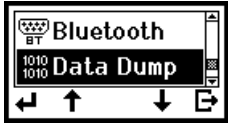
2. Follow the instructions on the screen, then press **↵** to continue.

The serial port test is performed. When it is finished, you return to the Diagnostics menu. Press **X** to cancel the test at any time.

Data Dump

Use this menu if you are having problems with a data stream. Data Dump captures the data from the communications port and prints that information to a label.

From the Diagnostics menu, select **Data Dump**.



A couple of labels print with data from the communication port and you return to the Diagnostics menu.

About

Use this option to view information about the printer model and software version.

1. From the Diagnostics menu, select **About**.
2. Press **↔** until you return to the Tools menu.

Online Diagnostics

Online Diagnostics is only for Service Representatives and requires additional computer software. It allows Service to diagnose printer problems.

Service Diagnostics

Service Diagnostics is only accessible to a Monarch Representative and requires a service password. Before calling Service, print a test label.

File System

The File System is only accessible to a Monarch Representative and requires a service password. It clears all files that are downloaded to flash, but keeps all application files.

APPENDIX



This appendix lists cable information for the 9493™ printer's cable ports. Refer to the *Operator's Handbook* available on our Web site for information about connecting cables.

Serial Port

The 9493 printer has a 9-pin serial port. For best results, use Monarch cables. Contact your Monarch representative to order cables.

9-pin (Female)

Pin #	Name	Description
1	N/A	Reserved – Do not connect
2	RXD	Received Data
3	TXD	Transmitted Data
4	DTR / 5V	Data Terminal Ready (user configurable)
5	GND	Signal Ground
6	DSR	Data Set Ready
7	RTS	Request to Send
8	CTS	Clear to Send
9	N/A	Not connected

USB Ports

The 9493 printer has both a Type-A and a Type mini-B USB port. For best results, use Monarch cables. Contact your Monarch representative to order USB cables. See “USB Mode” in Chapter 2 for information on setting up the USB port.

802.3 Ethernet Port

The 9493 printer uses an RJ-45 Ethernet plug. Refer to the *Network System Administrator's Guide* for information on using Ethernet.



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