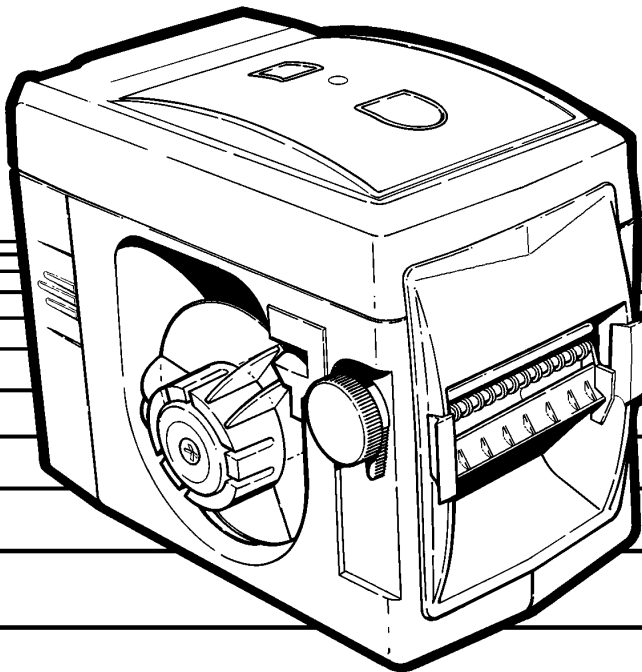


Monarch®
PAXAR

Monarch® 9450™ *RASCAL*® Printer



Operator's Handbook

Each product and program carries a respective written warranty, the only warranty on which the customer can rely. Monarch reserves the right to make changes in the product, the programs, and their availability at any time and without notice. Although Monarch has made every effort to provide complete and accurate information in this manual, Monarch shall not be liable for any omissions or inaccuracies. Any update will be incorporated in a later edition of this manual.

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 édicte par le ministère des Communications du Canada.

**NICKEL - CADMIUM RECHARGEABLE BATTERY.
FOR PROPER RECYCLING OR DISPOSAL, CALL
YOUR LOCAL SERVICE OFFICE.**



Ni-Cd

Trademarks

Monarch and RASCAL are registered trademarks of Monarch Marking Systems, Inc.
9450 and 9459 are trademarks of Monarch Marking Systems, Inc.
Paxar is a trademark of Paxar Corporation.

Preface

This *Operator's Handbook* describes how to

- ◆ charge the battery.
- ◆ load supplies.
- ◆ set up communications.
- ◆ send a print job.
- ◆ care for and maintain the printer.
- ◆ solve any problems that may occur.

It also contains product specification and accessories information.

Audience

This manual has a dual-purpose audience. It is intended primarily for Operator of the printer. However, the System Administrator who sets up print jobs for the Operator should be familiar with the following topics:

- ◆ "About Sleep Mode" (Chapter 1)
- ◆ "Loading Supplies" (Chapter 2)
- ◆ "Printing" (Chapter 4)
- ◆ "Care and Maintenance" (Chapter 5)
- ◆ "Problems and Solutions" (Chapter 6)

Also, "Setting Communications Parameters" (Chapter 3) is included, and is intended for the System Administrator only.

Terms to Know

The following terms are used in this manual.

Communications Parameters	Settings that define how the printer and host communicate with each other. The parameters (baud rate, flow control, data bits, and stop bits) must match on both devices.
Continuous Mode	Default print mode in which the printer feeds one or more supplies without operator intervention.
Format	The design of a printed label.
Host	Any mainframe, minicomputer, data collection terminal, or personal computer attached to the printer.
Indexed supply	Supplies that enable the printer to sense where a label begins or ends. One type of indexed supplies have black marks on the back to accomplish this task.
Non-indexed supply	Supplies that do not enable the printer to sense where a label begins or ends.
Non-peel Mode	Feed mode in which the printer does not peel labels from the backing paper while printing.
On-demand Mode	Print mode in which the printer prints one label each time you press [Feed] .
Online	Direct communication between host and printer.
Peel Mode	Feed mode in which the printer peels labels from the backing paper while printing.

Print Job	A command or commands sent from the host to the printer that results in one or more labels being printed.
Sleep Mode	Operation mode in which the printer conserves energy while retaining the print job.
Supplies	The media (paper or synthetic) the printer prints on.
Top-of-form	Position where the supply stops before printing the next label. You may adjust the top of the form to compensate for supply variations and the peel mode used.

Table of Contents

Chapter 1. Getting Started	1-1
Using the Buttons	1-2
Charging the Battery	1-3
Removing and Loading the Battery	1-5
Removing the Battery	1-5
Loading the Battery	1-6
About Sleep Mode	1-6
Attaching the Belt	1-7
Chapter 2. Loading Supplies	2-1
Loading for Peel Mode	2-2
Loading for Non-Peel Mode	2-6
Removing Supplies	2-8
Chapter 3. Printer Communications	3-1
Setting Communications Parameters	3-1
Connecting the Communications Cable	3-3
Removing the Communications Cable	3-4
Chapter 4. Printing	4-1
Printing in On-demand Mode	4-1
Removing Backing Paper	4-2
Printing in Continuous Mode	4-2
Pausing the Printer	4-2
Clearing a Print Job	4-2

Chapter 5. Care and Maintenance	5-1
Clearing Jams	5-1
Inserting the Supply Guide	5-3
Cleaning the Printhead	5-4
Cleaning the Platen Roller and Peel Blade	5-5
Chapter 6. Troubleshooting	6-1
Printing a Test Label	6-1
LED Indicator	6-2
Problems and Solutions	6-3
Chapter 7. Specifications	7-1
Printer Specifications	7-1
Supply Sizes	7-2
Accessories	7-2
Communications Cable Pin Definitions	7-3

Chapter 1.

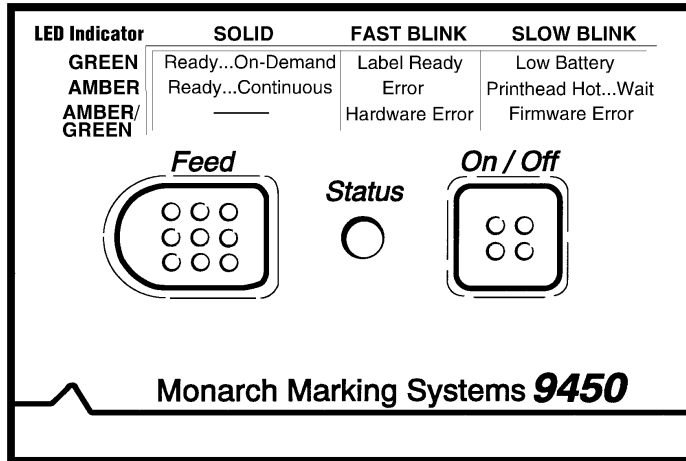
Getting Started

The 9450™ RASCAL® printer is a portable, thermal-direct printer. This chapter tells you how

- ◆ to use the buttons on top of the printer.
- ◆ to charge and use the battery.
- ◆ sleep mode works.
- ◆ to attach the belt.

Using the Buttons

On the top of the printer, there are two buttons and an LED indicator, as shown.



[Feed]

Use to

- ◆ feed or advance the supply for printing. See Chapter 4, "Printing," for information about the different print modes.
- ◆ pause the printer during printing.
- ◆ set the communication parameters in the printer to match your host. See "Setting Communications Parameters" in Chapter 3.
- ◆ clear most error conditions.
- ◆ print a test label. See Chapter 6, "Troubleshooting," for information.

[On/Off]

Use to

- ◆ turn the printer on and off.
- ◆ wake the printer from sleep mode. See "About Sleep Mode," later in this chapter.
- ◆ reset the printer to normal operation mode after printing a test label. See Chapter 6, "Troubleshooting," for information.

LED Indicator

Indicates certain printer conditions or communication problems. The LED indicator can be amber, green, or alternate between these colors. It can also blink or be a solid color.

See Chapter 6, "Troubleshooting," for a list of possible LED indicator conditions and descriptions.

Charging the Battery

A 6-volt NiCd battery powers the printer. Charge the battery

- ◆ when you receive the printer.
- ◆ when the LED indicator shows a battery condition (slow blinking green or blank).

In general, NiCd batteries require 5-8 charge/deplete cycles to reach full charge.



When first charging a battery, charge it for 14 hours, regardless of whether you're using the fast or trickle charger.

When you're not charging or using the battery, it loses 2-3% of its charge daily. Extremely hot environments increase this charge loss rate and extremely cold environments decrease this charge loss rate.

If the battery loses power in the middle of a printing session, replace or recharge the battery. The printer remembers the print job.

When you use or store your charger, **do not**:

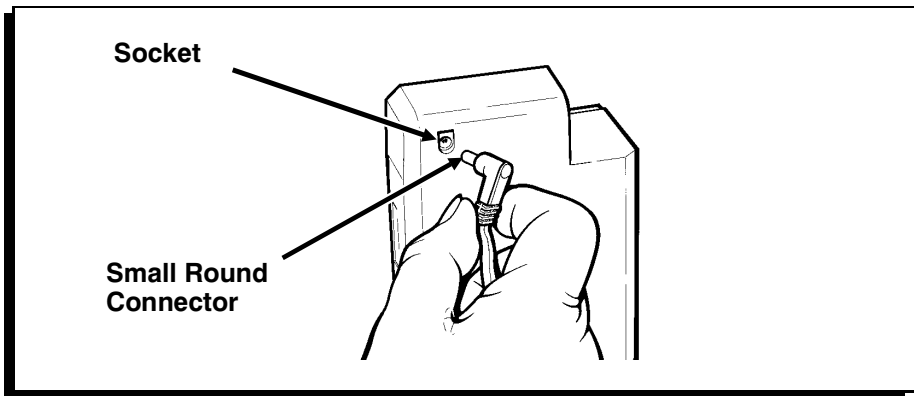
- ◆ wrap the cord around the charger.
- ◆ pull or put unusual stress on the cord.



Before using the charger, inspect the cord for bare wires. **Do Not** use a charger with bare wires. Only use a charger approved for use with this printer.

To charge the battery:

1. Remove the battery, as described in "Removing the Battery."
2. Plug the small, round connector on the charger cord into the socket on the battery, as shown. The charger's LED indicator is solid amber when the charger is fully connected.



3. Plug the charger into a 115V electrical outlet. A full initial charge takes approximately 14 hours.



Areas using 220V or 240V electrical outlets will receive a charger designed for these voltages. See Chapter 7, "Specifications," for information.

4. When charging is complete, unplug the charger from the battery.
5. Load the battery, as described in "Loading the Battery."
6. Press **[On/Off]** to resume printing.

For more information, see your *Fast Charger Addendum*.

Removing and Loading the Battery

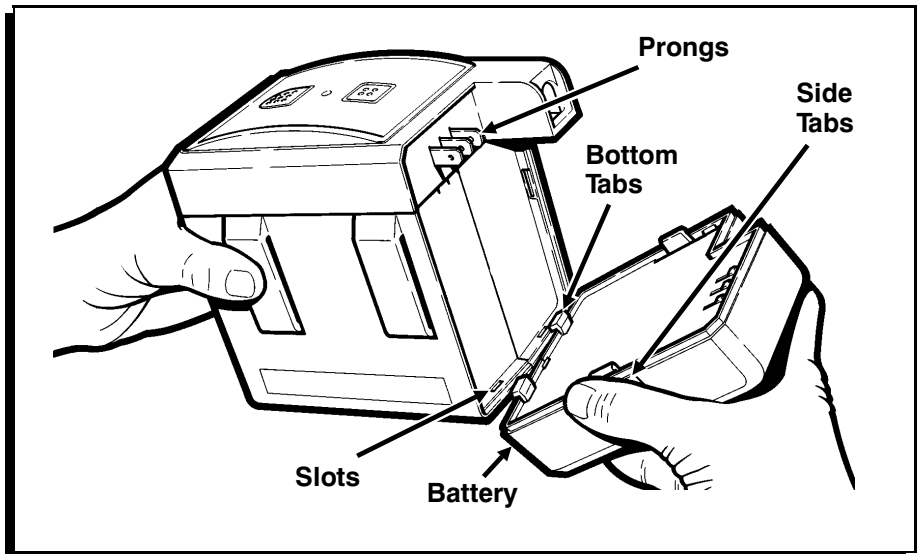
You don't need to turn off the printer before removing or loading a battery.

Removing the Battery

The battery side tabs are stiff and require more force to press when new. After you remove the battery for charging a few times, the tabs become easier to press, requiring less force to remove.

To remove the battery:

1. Hold the printer as shown.



2. Squeeze the side tabs on the battery and pull the battery away from the printer.

Loading the Battery

To load the battery:

1. Insert the bottom tabs on the battery into the slots at the bottom of the battery well.
2. Push the top of the battery onto the prongs until the battery snaps into place.

About Sleep Mode

When the printer is inactive for a certain period, it goes into sleep mode to conserve battery power. During sleep mode, the printer retains all print jobs, but isn't operational.

See your System Administrator to set the time the printer waits before going into sleep mode. The default is 2 minutes, but it can range from 10 seconds to 2.7 hours. Your System Administrator can also disable sleep mode entirely. If sleep mode is disabled, an F appears on the test label before the delay time.

To recover from sleep mode, press **[On/Off]**. The printer takes 100 milliseconds to recover.



Do Not send a print job during this interval. It will be lost.

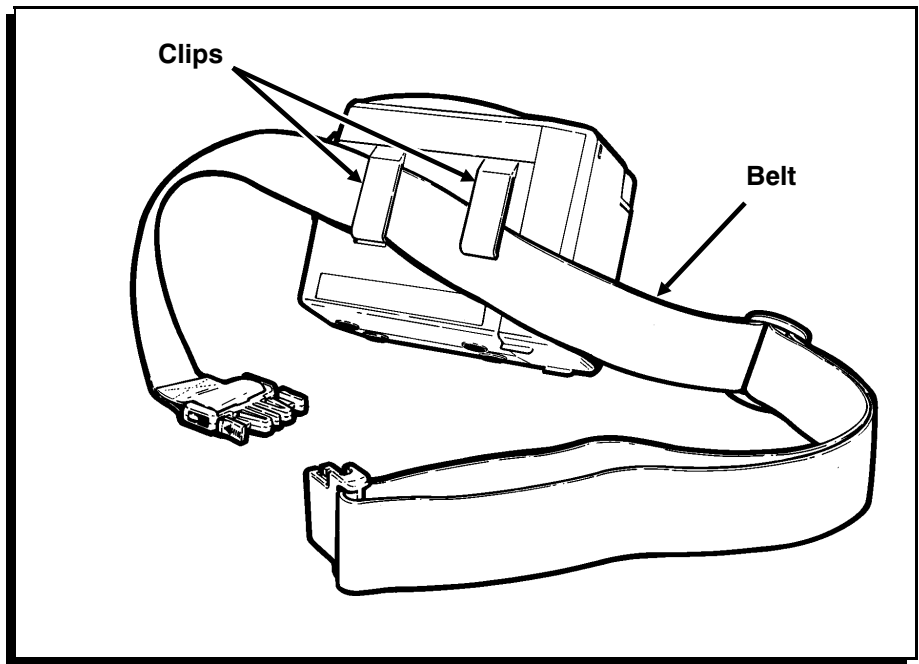
Attaching the Belt

Your printer comes with a belt for portable printing.

To attach the belt:

1. Lift one of the clips and slip the belt under it.
2. Release the clip.
3. Repeat these steps for the other clip.

Make sure the belt is completely under the clips.



The printer accepts labels, tags, and thermal paper. Labels can be indexed or non-indexed. They also can have a core or be coreless. Use synthetic (non-paper) labels to print serial or high-density bar codes.

You can load supplies two ways:

- ◆ *Peel mode* peels the label from the backing paper while it feeds through the printer. This mode requires indexed labels. The printer must be in On-demand mode. A solid green LED indicator implies On-demand mode. Ask your System Administrator to set the mode, if necessary.
- ◆ *Non-peel mode* feeds without peeling labels from the backing paper. Use this mode for printing label strips or printing on tags or thermal paper. The printer must be in Continuous mode. A solid amber LED indicator implies Continuous mode. Ask your System Administrator to set the mode, if necessary.



Before loading supplies, make sure the supply chute is clean. Refer to Chapter 5, "Care and Maintenance."

Loading for Peel Mode

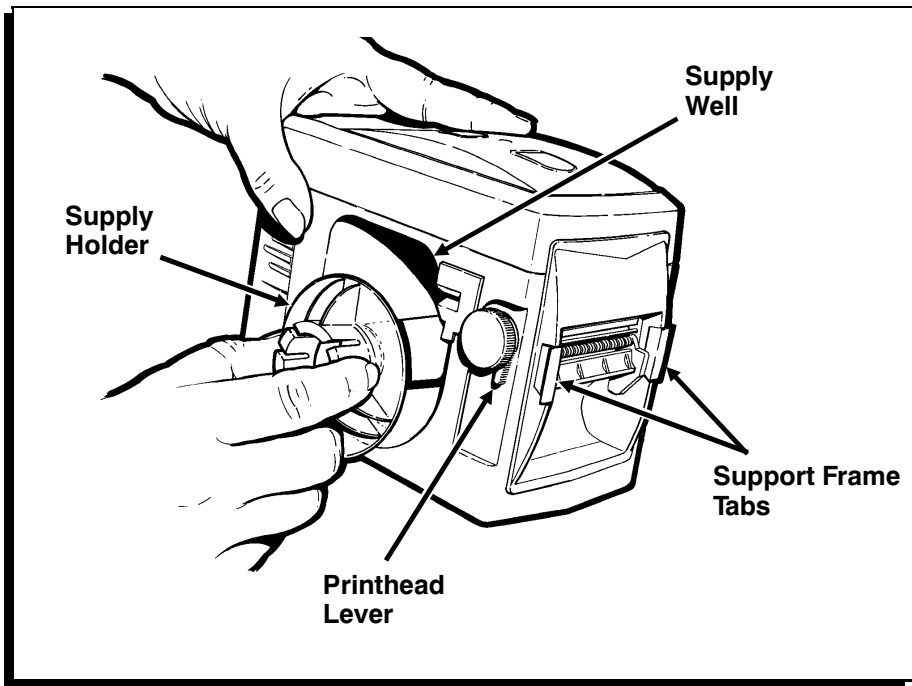
In Peel mode, use die-cut labels only. Use supplies up to a maximum of 2.05 inches. Contact Monarch at the number at the back of this manual if you have special label requirements.



It doesn't matter if the printer is off or on while you are loading supplies.

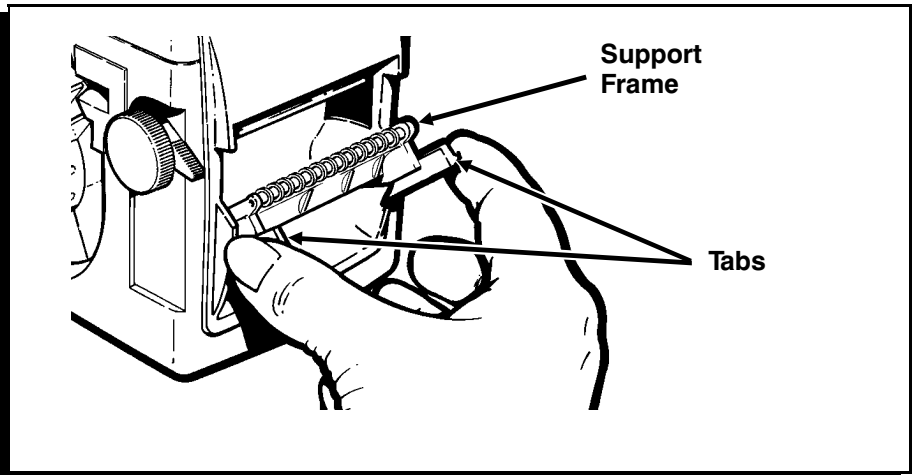
To load supplies for Peel mode:

1. Remove the supply holder from the supply well as shown.

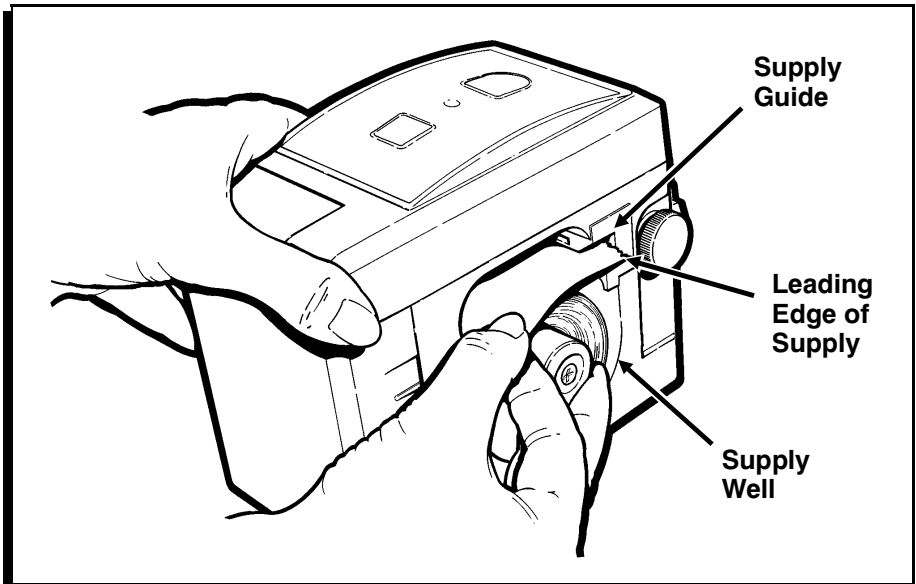


2. Push the printhead lever up to open the printhead.

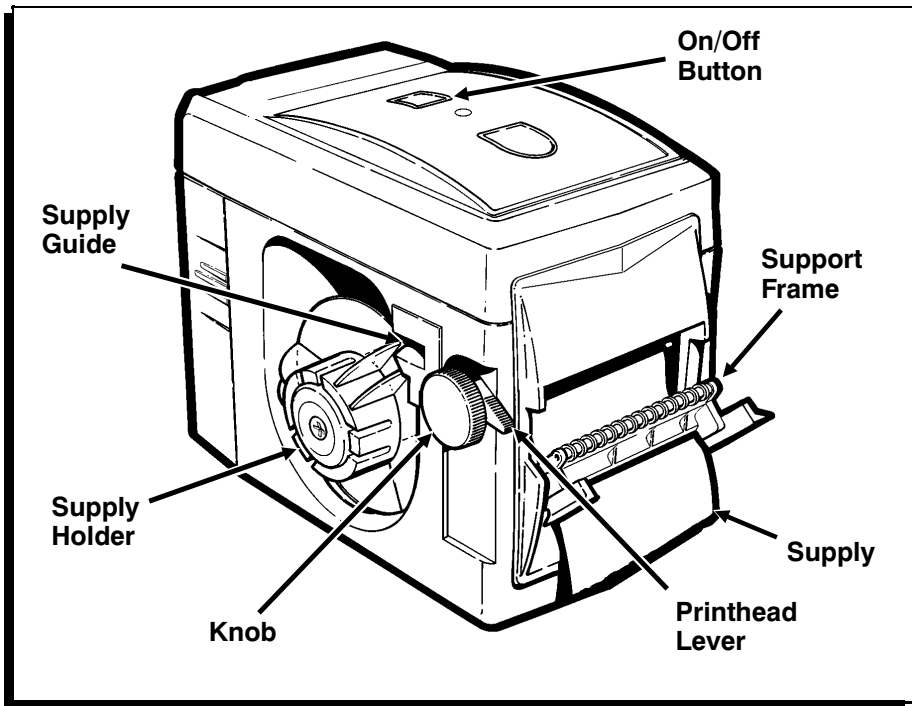
3. Squeeze the tabs on both sides of the support frame and pull it open.



4. Insert the leading edge of the supply into the supply guide while dropping the supply roll into the supply well. Push the supply against the back of the well. Use your finger to push the supply through the supply chute.



5. Place the supply holder against the supply roll in the supply well. Make sure the supply turns freely in the well.
6. Feed the supply through the printer, as follows.
 - ◆ Push the printhead lever down to close the printhead. If the printer is off, turn the knob clockwise to manually feed the supply through the supply chute.
 - ◆ Push the printhead lever down to close the printhead. If the printer is on, the printer feeds the supply automatically.
7. Feed the supplies behind the support frame as shown.

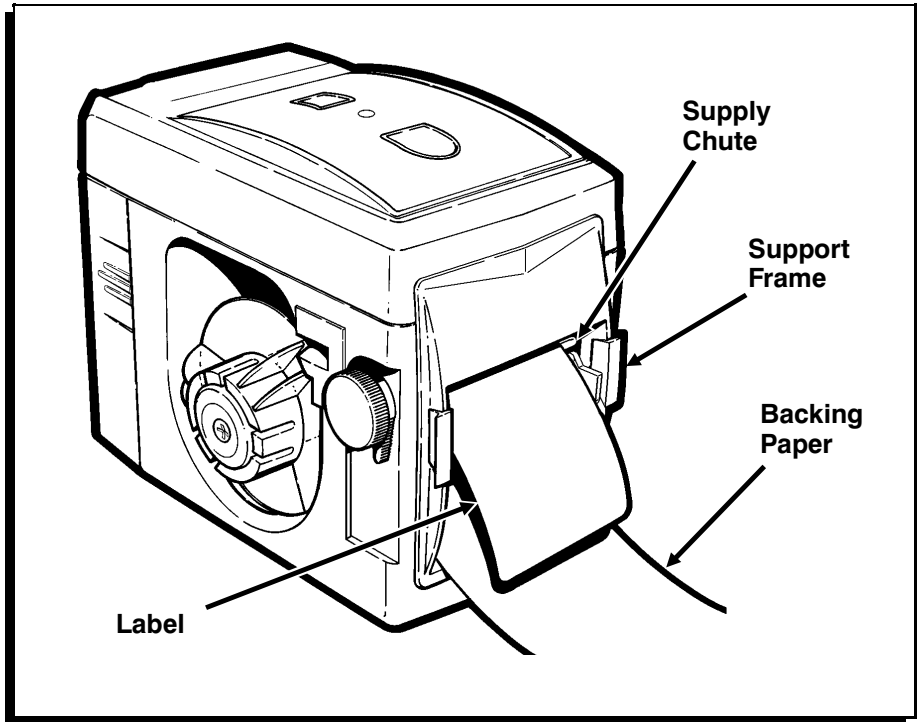


8. Remove labels from the backing paper.



Make sure the supplies rest against the back wall of the printer as they exit the supply chute. If not, open the printhead and realign the supplies. Close the printhead.

9. Snap the support frame back into place. Gently pull on the backing paper to make sure it is tight.



Loading for Non-Peel Mode

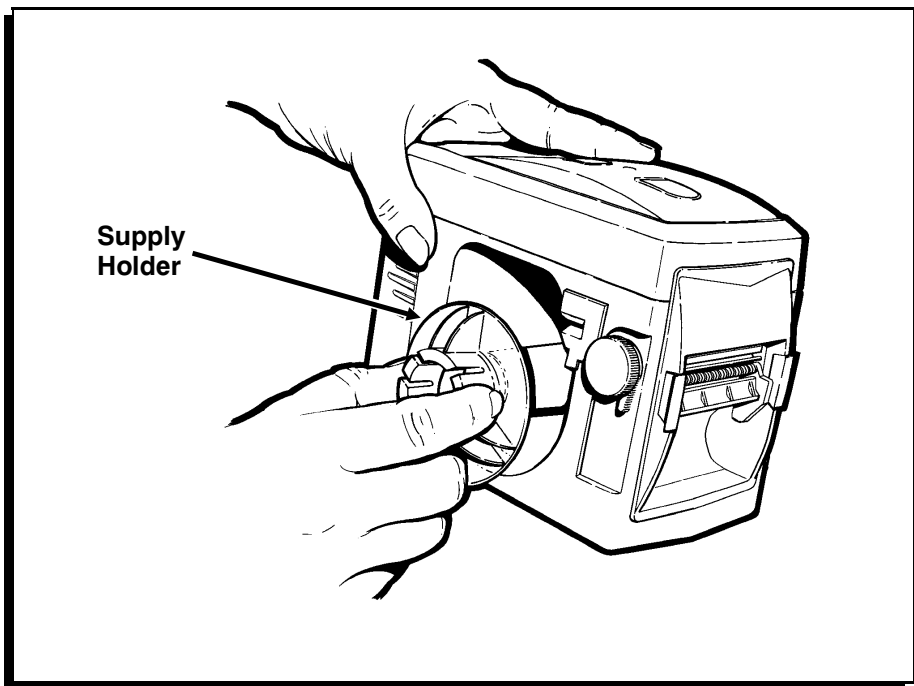
In non-peel mode, supplies can be either die-cut or butt cut with a maximum size of 2.2 inches.



If you have special label requirements, contact Monarch at the number listed in the back of the handbook.

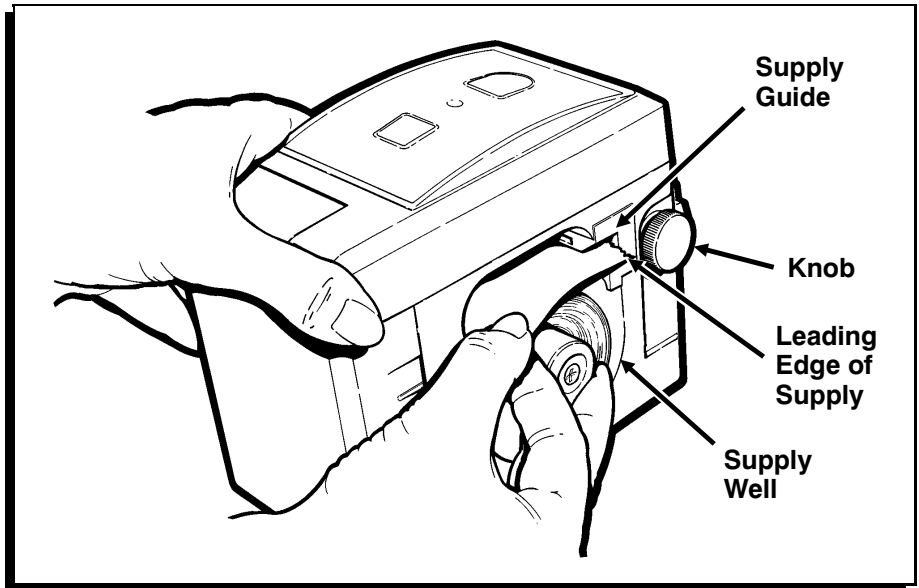
To load supplies for non-peel mode:

1. Remove the supply holder and any supply that remains.



2. Turn printer on.
3. Tilt the top of printer slightly back.

4. Drop the new supply roll into the supply well until it rests on the back wall.
5. With thumb and forefinger, insert the leading edge of the supply into the supply guide until the printer begins to feed the supply. Make sure the supply roll is flush against the back wall when you begin to insert the leading edge.



6. Replace the supply holder.

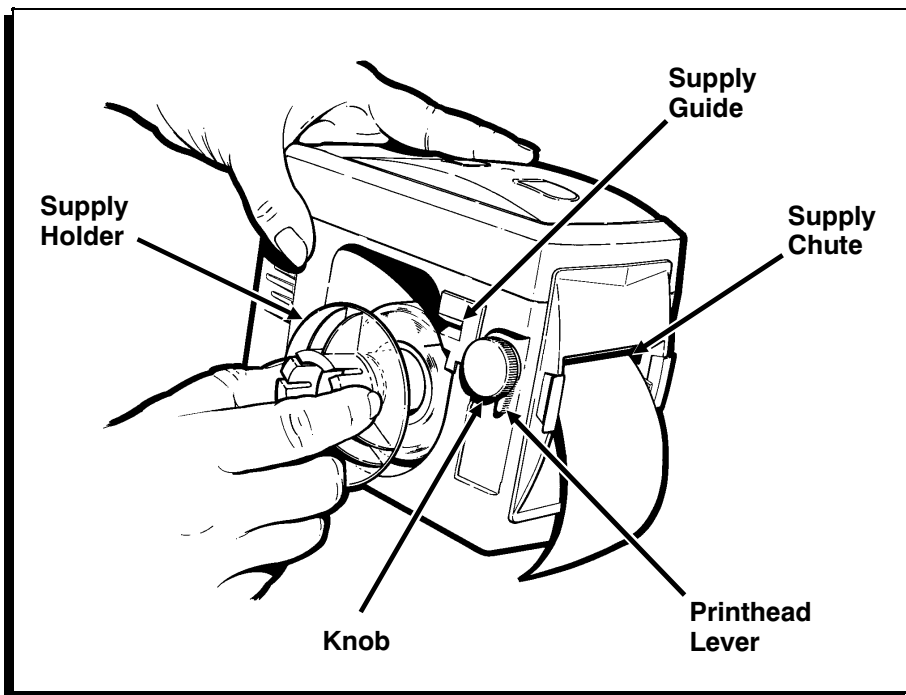


To manually load supplies with the printer turned off, you must insert the leading edge of supply into the supply guide and then turn the printhead knob clockwise. This will manually feed the supply through.

Removing Supplies

To remove supplies:

1. Remove the supply holder as shown.



2. Cut or tear the supplies as close to the supply guide as possible, and remove the supply roll.
3. Push the printhead lever up to open the printhead.



Do Not back the labels through the printhead or a supply jam may occur.

4. Turn the knob clockwise to feed the supply out the supply chute.

Chapter 3. Printer Communications

System Administrators Only. Before the printer can receive a print job from the host, you must:

1. Set the communications parameters.
2. Attach the communications cable.
3. Turn the printer on.

Setting Communications Parameters

Before sending a print job from the host, set the communications parameters (flow control, baud rate, data bits, and stop bits) in the printer to match the parameters set at the host. You can set the printer's communications parameters manually or by using online commands.

To see the printer's current communications parameters, print a test label. See Chapter 6, "Troubleshooting," to learn how to print a test label. The printer's default parameters are **9600,N,8,1**.



- ◆ If the flow control parameter for the host and printer do not match, the LED indicator blinks 1/4 second amber, and the printer will not print. Press **[Feed]** to reset the printer.
- ◆ Follow these instructions exactly. **Do Not** omit any parameters.

To set the communications parameters manually:

1. Turn the printer off and remove the battery.
2. Press **[Feed]** while re-connecting the battery. Continue to press **[Feed]** until the LED indicator changes from amber to green. Release the button.

3. Press [**Feed**] once. The LED indicator blinks once.

Press [Feed] ...	To set the baud rate to ...
Once	38,400
Twice	19,200
Three times	9600
Four times	4800
Five times	2400
Six times	1200

The printer verifies your selection by flashing the LED indicator once for each time you pressed [**Feed**].

4. Press [**Feed**] twice. The LED indicator blinks twice.

Press [Feed] ...	To set ...
Once	No parity, 8 data bits, 1 stop bit
Twice	Even parity, 7 data bits, 1 stop bit

The printer verifies your selection by flashing the LED indicator once for each time you pressed [**Feed**].

5. Press [**Feed**] three times. The LED indicator blinks three times.

Press [Feed] ...	To set flow control to ...
Once	XON/XOFF
Twice	DTR

The printer verifies your selection by flashing the LED indicator once for each time you pressed [**Feed**].

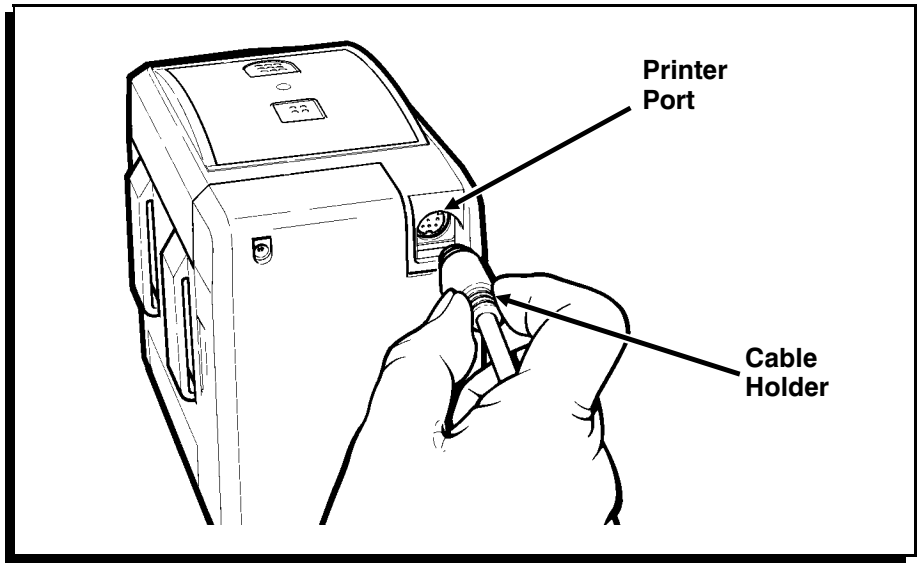
6. Press [**Feed**] four times to exit the communications parameter set mode. A test label prints automatically, showing the new communications parameters. The LED indicator goes off.

7. Remove the battery. Press **[On/Off]** while you re-connect the battery to return to normal print operations.

Connecting the Communications Cable

To attach the communications cable:

1. Grasp the cable holder and position the connector to match the frame around the printer port.



2. Insert the connector into the printer port until the connector locks into place. You may hear a click as the latch snaps into place.
3. Pull the cable holder gently to make sure it is secure.
4. Plug the other end of the cable into the host.



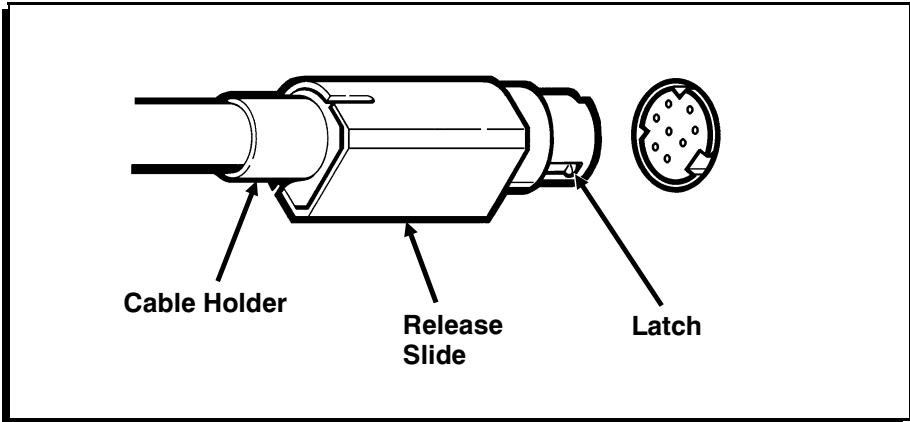
Do Not carry or drag the printer by the cable. Also, remove the cable when not using the printer.

See Chapter 7, "Specifications," for cable pin definitions.

Removing the Communications Cable

To remove the cable:

1. Hold the printer steady with one hand.



2. Grasp the cable holder with your other hand and push it in to unlock the latch.
3. Release the cable holder and grasp the release slide.
4. Pull the release slide **gently** to remove the cable.

Do Not yank the cable from the printer.



This chapter describes how to

- ◆ print in On-demand mode.
- ◆ remove backing paper.
- ◆ print in Continuous mode.
- ◆ clear a print job from the printer's memory.
- ◆ pause the printer while it prints.



See your System Administrator for a print job.

Printing in On-demand Mode

In On-demand mode, the printer prints one label at a time (when a label is ready to dispense, the LED indicator blinks). After the printer dispenses the first label, it waits for you to press **[Feed]** to print each successive label. You must load your labels in Peel mode.



The LED indicator is solid green in On-demand mode. Ask the System Administrator to set the mode, if necessary.

To print in On-demand mode:

1. Load supplies for Peel mode. See Chapter 2, "Loading Supplies."



Make sure the backing paper is pulled tight.

2. Send the print job.
3. Press **[Feed]** to dispense a label.
4. Remove each label after it prints.

Repeat steps 3 and 4 to continue printing the batch.

Removing Backing Paper

To remove excess backing paper:

1. Tear the backing paper a few inches away from the support frame.



Do Not tear it against the support frame.

2. Gently pull the backing paper in the printer to make sure it is tight.

Printing in Continuous Mode

In Continuous mode (the default), the printer prints a strip of supply. Supplies may be strips of labels, tags, or thermal paper.



The LED indicator is solid amber in Continuous mode. Ask your System Administrator to set the mode, if necessary.

To print in Continuous mode:

1. Load the supplies for Non-peel mode. See Chapter 2, "Loading Supplies."
2. Send the print job.
3. Press **[Feed]**. When printing stops, press **[Feed]** again to advance the supply.
4. Cut the supply and remove the strip.

Pausing the Printer

To pause the printer while printing in Continuous mode, press **[Feed]**. To resume printing the current print job, press **[Feed]** again.

Clearing a Print Job

To cancel the current print job manually, press and hold **[Feed]** for 3 to 5 seconds.

Chapter 5. Care and Maintenance

This chapter explains how to:

- ◆ clear jams.
- ◆ clean the printhead.
- ◆ clean the peel blade and platen roller.

Clearing Jams

If the supplies jam during printing, the LED indicator blinks rapidly, alternating between amber and green.



Do Not feed supplies with exposed adhesive through the printer. Adhesive becomes exposed when you tear the supplies, causing a jam. To avoid a jam:

- ◆ when loading supplies, remove a few labels from the beginning of the roll.
- ◆ when removing a partial roll, tear the supplies carefully and feed the last few labels through the printer.

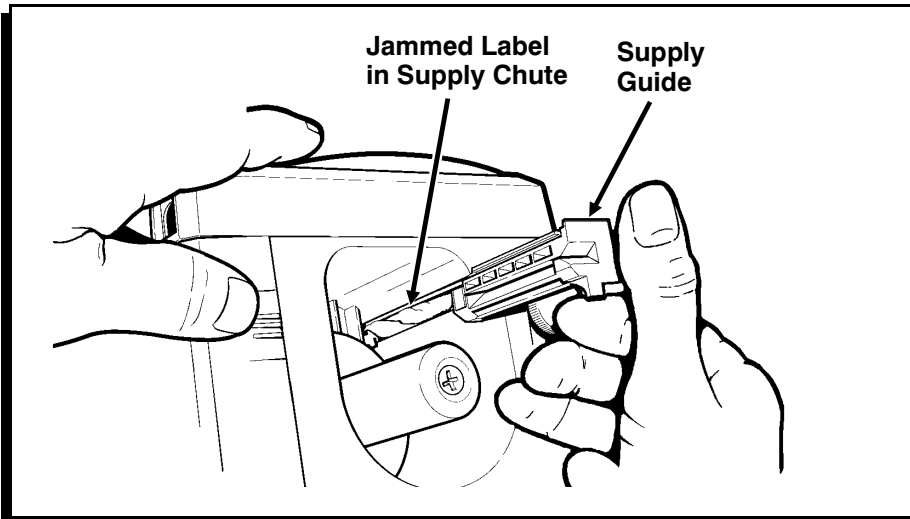
To clear a jam:

1. Turn the printer off, and remove the supplies. See "Removing Supplies" in Chapter 2 for more information.



Do Not back labels through the printhead or a jam may occur.

2. If your printer has a removable supply guide, grab the printer firmly with one hand. With the other hand, slide out the supply guide as shown.



Do Not pull the supply guide completely out of the printer.

3. Use your fingers (no sharp objects) to remove any jammed labels from the supply guide and supply chute.
4. Slide the supply guide back into the printer.
5. Use the cleaning card to clean the printhead and supply chute. See "Cleaning the Printhead" later in this chapter for more information.



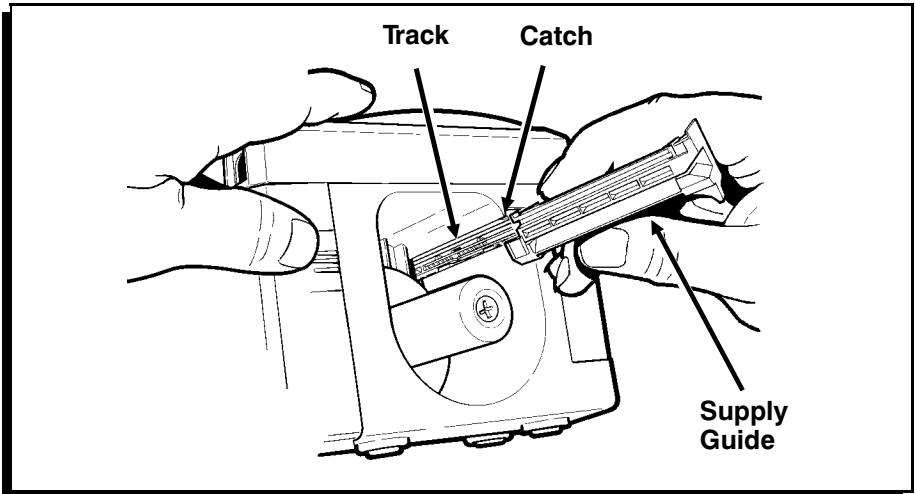
Do Not use anything other than the cleaning card to clean the supply path.

6. Reload the supplies and turn the printer on.
7. Press [**Feed**] to recalibrate the supply.

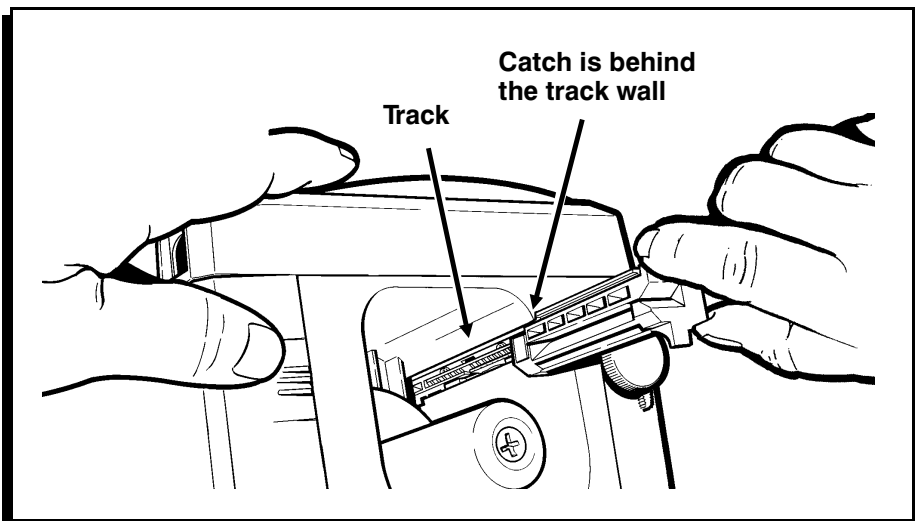
Inserting the Supply Guide

If the supply guide does come out of the printer:

1. Tilt the supply guide in a downward slant, and insert the catch into the top of the track.



2. Tilt the supply guide so it lines up with the track, and then gently slide it along the track, and into the printer.



Cleaning the Printhead

Clean the printhead daily when using the printer in excessively dirty, hot, or humid environments. Also clean it after every five rolls of supplies, or when you see voids in the print as shown.



Voids

Correct Print

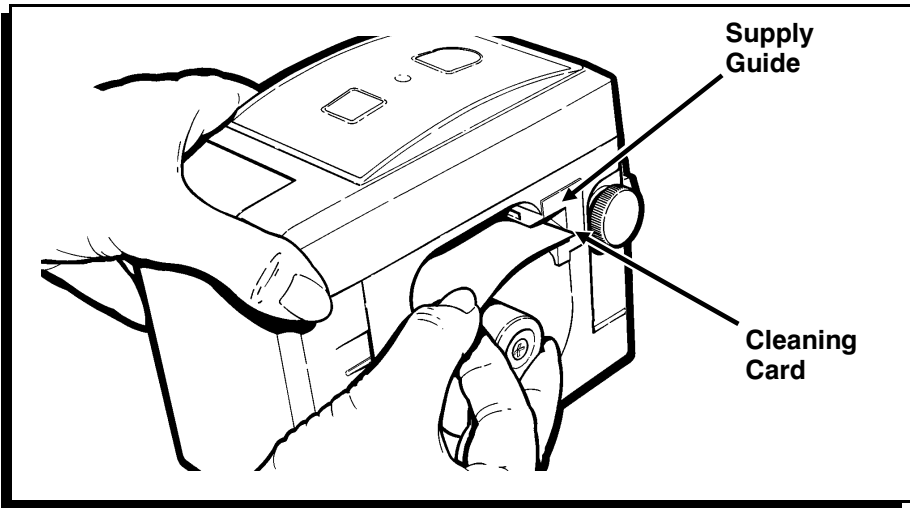
To clean the printhead, use the cleaning card provided.

1. Remove the supplies as shown in Chapter 2.



Do Not back labels through the printhead or a jam may occur.

2. Feed the cleaning card through the supply guide and out the supply chute to remove buildup. Repeat as needed.



3. Let the printer dry briefly. Then, reload your supplies.



Do Not use sharp objects to clean the printhead. This may damage the printer and require a service charge.

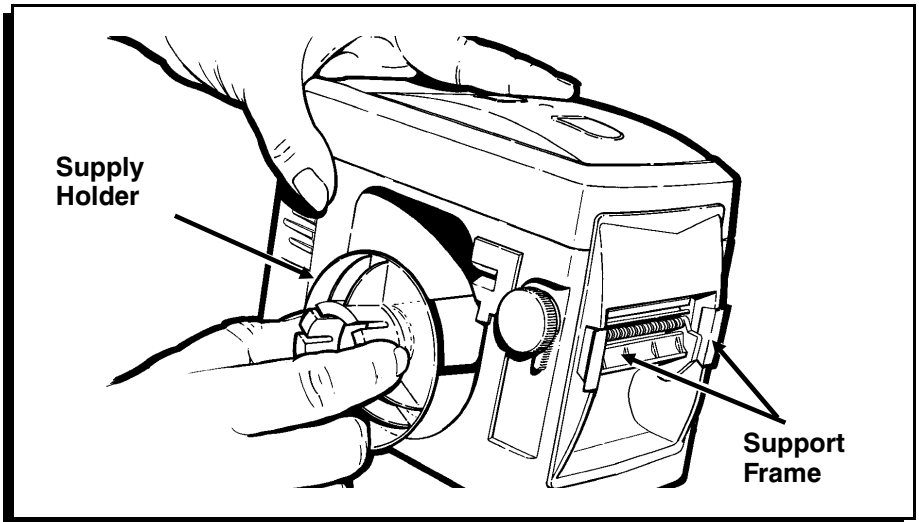
Cleaning the Platen Roller and Peel Blade

To clean the platen roller and peel blade:

1. Turn the printer off.
2. Remove the supplies, if you haven't already. See "Removing Supplies" in Chapter 2 for more information.

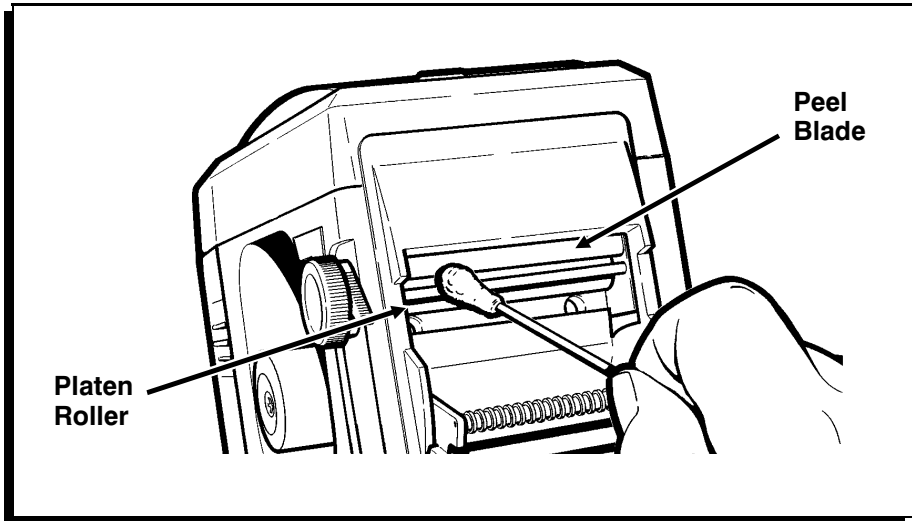


Do Not back labels through the printhead or jamming may occur. See "Removing Supplies" in Chapter 2 for more information.



3. Open the support frame to better expose the platen roller and peel blade.
4. Moisten a cotton swab with isopropyl alcohol.

5. Rub the cotton swab back and forth across the platen roller and peel blade to remove any buildup.



6. Let the printer dry briefly. Then, reload your supplies.

Chapter 6.

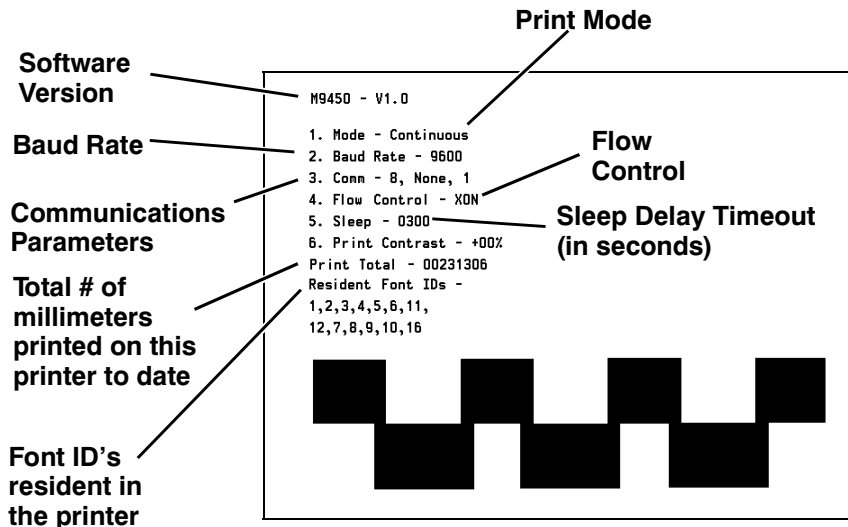
Troubleshooting

This chapter explains how to

- ◆ print a test label.
- ◆ read the LED indicator.
- ◆ clear errors.
- ◆ solve any problems that may occur.

Printing a Test Label

To print a test label, press **[Feed]** while you connect the battery. Continue to press **[Feed]** until the LED indicator turns amber. The LED indicator goes out. A test label prints automatically and the printer goes into sleep mode.



If the LED indicator does not come on when you print a test label, press **[On/Off]** and **[Feed]** at the same time and reattach the battery. Release **[On/Off]** and wait for the LED indicator to turn amber before releasing **[Feed]**. The test label prints automatically.



For resident Font IDs, the first number is the Font ID number, and the second is the Monarch internal font number used for internal use only. For example, 1:1000 indicates Font ID 1, and Monarch internal font 1000. Font 16 is for Monarch internal use only.

LED Indicator

The LED indicator is located on top of the printer, between **[Feed]** and **[On/Off]**. This LED indicator displays a variety of printer states. To clear an error, press **[Feed]**. The table below explains each state and its meaning.

LED Indicator	Status
Solid green	Operational; On-demand mode
Solid amber	Operational; Continuous mode
1/4 second blinking green	Label ready to dispense
1/4 second blinking amber	Online error (e.g., syntax, printing out of range)
1/4 second amber/green	Hardware error (e.g., out of supply, jam, printhead open)
2 second blinking green	Low or dead battery
2 second blinking amber	Printhead overheat
2 second amber/green	Firmware failure



Do Not ignore the low battery condition. If you continue to print with a low battery, the printer will eventually lock up with a solid green LED indicator and won't respond to key presses. If this occurs, put a new, fully charged battery on the printer.

Problems and Solutions

Some common printer problems and their solutions are listed below.

Problem	Solution
Battery won't charge.	Make sure the battery is connected correctly.
	Make sure the charger is plugged into a live outlet.
	Always charge the battery when the LED indicator is off or slowly blinks green.
Label is jammed.	Remove jammed supplies.
	Clean the printhead.
Labels do not peel.	Make sure the backing paper is tight.
	Make sure the support frame is locked into place.
LED indicator is off.	Make sure the printer is on.
	Turn the printer off and change to a fully charged battery.
	Make sure the printer is not in sleep mode. Press [On/Off] .
Printer doesn't respond to host.	Make sure the communications cable is attached and locked into place.
	Make sure the communications parameters at the printer match the host.
Printer locks up with a solid green LED indicator and will not respond to key presses.	Put a new, fully-charged battery on the printer.

Problem	Solution
Print has voids or is too light.	Make sure the supplies are loaded correctly.
	Check the supplies for damage or defects. Reload supplies if necessary.
	Check the peel roller for jammed supplies.
	Check the supply type (i.e., indexed or non-indexed). Have the System Administrator set the supply type.
	Turn the printer off and switch to a fully charged battery.
	Clean the printhead.
Printer does not feed.	Turn the printer off and switch to a charged battery.
	Reload the supplies.
	Verify that a label is not jammed in the label path.
	Make sure the printer is not in sleep mode. Press [On/Off] .
	Make sure no foreign matter is in the supply spool.
	Make sure the supply turns freely in the supply well.
	Make sure the printhead is closed.

Problem	Solution
Printer does not print.	Charge the battery.
	Make sure the print job was correct.
	Make sure the supplies are loaded correctly.
	Make sure the printhead is closed.
Printer does not start.	Make sure the battery is charged and plugged into the printer.
	Make sure the printhead is closed.
Slow or sluggish feeding.	Make sure the supplies are loaded correctly.
	Make sure no foreign matter is in the supply spool.
	Make sure the supply turns freely in the supply well.
	Check for adhesive buildup in the feed path and on the peel blade.

If you continue to have problems:

- ◆ Remove the battery, wait a few seconds and re-connect it while pressing **[On/Off]**.
- ◆ Make sure the battery is fully charged.
- ◆ Call Monarch at the number at the back of this manual.

Chapter 7.

Specifications

This chapter includes information about:

- ◆ printer specifications
- ◆ supply sizes
- ◆ accessories
- ◆ cable pin definitions.

Printer Specifications

Height:	4.3 inches (108 mm)
Width:	3.3 inches (84 mm)
Depth:	5.4 inches (137 mm)
Weight: (without supplies)	27 oz. (765 g)
Storage Limits:	15°F to 120°F (1 year maximum) -10° C to 49° C 85°F (29°C) maximum wet bulb
Operating Limits:	40°F to 110°F dry bulb 5°C to 43°C dry bulb
Battery Power:	6-volt, 1400 mA-hr NiCd battery
Printing:	Thermal direct
Supply Types:	Paper and synthetic (non-paper) supplies (labels, tags, thermal paper)
Memory:	128K bytes of RAM 256K bytes of RAM (optional)

Supply Sizes

- ◆ **Tag Widths:**
1.0" to 1.4" (25 mm to 36 mm)
- ◆ **Label Widths:**
Non-peel mode - 1.0" to 2.2" (25 mm to 56 mm)
Peel mode - 1.0" to 2.05" (25 mm to 55 mm)
- ◆ **Tag and Label Lengths:**
.55" to 5.0" (14 mm to 127 mm)

Accessories

- ◆ RS-422 connection
- ◆ 256K memory
- ◆ 2-hour fast charger #116518
- ◆ AC adapter #116949
- ◆ Holster
- ◆ Waist strap #116519
- ◆ Cleaning card #116527
- ◆ 25-pin PC communications cable #11658715
- ◆ 9459™ Programmer's Kit, which includes:
 - 9450 Label Design Software
 - *9450 Label Design Software Manual*
 - *9450 Programmer's Manual*
 - *9459 Interface Manual*
 - 9-pin PC communication cable
- ◆ Communication cables for several data collection terminals.
- ◆ MONARCH® PLATFORM™ label design software for use in a Windows® environment.
- ◆ MONARCH PLATFORM Font Utility

Call your sales representative for details.

Communications Cable Pin Definitions

The printer has an 8 pin mini-DIN RS-232C locking connector with the following pin definitions.

Pin	Signal	Direction
1	CTS	from host
2	RTS	from printer
3	TXD	from printer
4	GND	GND
5	RXD	from host
6	DTR	from printer
7	DSR	from host
8	+5 Volts	from printer

Index

A -----

Accessories 7-2
Attaching the belt 1-7

B -----

Backing paper, removing 4-2
Battery
 charging 1-3, 6-3
 loading 1-6
 removing 1-5
BAattery power 7-1
Baud rate 3-2
Belt, attaching 1-7
Buttons 1-2 - 1-3

C -----

Cable, communications 3-3 - 3-4
Card, cleaning 5-4
Charger, trickle 1-4
Charging batteries 6-3
Charging the battery 1-3
Cleaning
 peel blade 5-5
 platen roller 5-5
 printhead 5-3
Cleaning card 5-4
Clearing a print job 4-3
Clearing jams 5-2, 6-3
Communications cable
 connecting 3-3
 pin definitions 7-3
 removing 3-4
Communications parameters
 setting 3-1
 values 3-2
Communications, establishing 3-1

Connecting the communications cable
3-3
Continuous mode, printing in 4-2

D -----

Depth of printer 7-1

E -----

Establishing communications 3-1

F -----

Feeding, slow or sluggish 6-5
Flow control 3-2

H -----

Height of printer 7-1

J -----

Jammed labels 5-2, 6-3
Jams, clearing 5-2, 6-3

L -----

Labels
 jammed 5-2, 6-3
 peeling 6-3
LED indicator 1-3, 6-2 - 6-3
Limits
 operating 7-1
 storage 7-1
Loading supplies 2-1
Loading the battery 1-6

M-----

Memory of printer 7-1

Modes

- continuous 4-2
- non-peel 2-1, 2-6
- on-demand 4-1
- peel 2-2
- sleep 1-6

N-----

Non-peel mode 2-1, 2-6

O-----

On-demand mode, printing in 4-1

Operating limits 7-1

P-----

Parameters, communications 3-1 - 3-2

Pausing the printer 4-3

Peel blade, cleaning 5-5

Peel mode 2-1 - 2-2

Peeling labels 6-3

Pin definitions of the communications cable 7-3

Platen roller, cleaning 5-5

Power, of battery 7-1

Print jobs, clearing 4-3

Printer

- depth 7-1
- height 7-1
- not feeding 6-4
- not printing 6-5
- not starting 6-5
- response to host 6-3
- specifications 7-1
- weight 7-1
- width 7-1

Printer, pausing 4-3

Printhead, cleaning 5-3

Printing a test label 6-1

Printing in Continuous mode 4-2

Printing in On-demand mode 4-1

Printing type 7-1

Printing, voids or too light 6-4

Problems

- battery won't charge 6-3
- common 6-3
- jammed label 6-3
- labels do not peel 6-3
- LED indicator is off 6-3
- no response to host 6-3
- print quality 6-4
- printer does not feed 6-4
- printer does not print 6-5
- printer does not start 6-5
- slow or sluggish feeding 6-5

R-----

Removing backing paper 4-2

Removing supplies 2-8

Removing the battery 1-5

Removing the communications cable 3-4

Responses to host, from printer 6-3

S-----

Setting communication parameters 3-1

Sizes, of supplies 7-2

Sleep mode 1-6

Solutions to common problems 6-3

Specifications, printer 7-1

Storage limits 7-1

Supplies

- loading 2-1
- removing 2-8
- sizes 7-2
- types 7-1

T-----

Test labels, printing 6-1


Trickle charger 1-4

Type of printing 7-1

Types of supplies 7-1

U-----
Using the buttons 1-2

W-----
Weight of printer 7-1
Width of printer 7-1



For supplies, service, or assistance call:

TOLL FREE:

1-800-543-6650 (In the U.S.A.)

1-800-263-4650 (In Canada)

www.monarch.com

