Monarch®
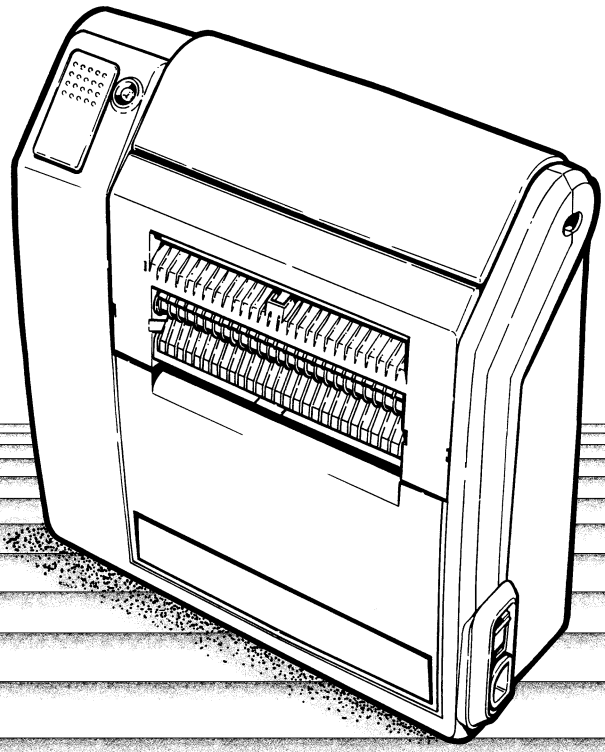**PAXAR**

Monarch® Renegade® 4 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 and 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 Réglement sur le brouillage radioélectrique édicte par le ministère des Communications du Canada.

DECLARATION OF CONFORMITY
according to ISO/IEC Guide 22 and EN 45014

Manufacture's Name   :   Monarch Marking Systems, Inc.

Manufacture's Address   :   170 Monarch Lane, at I75 and SR725
Miamisburg, Ohio 45342
U.S.A.

Declares that the product :

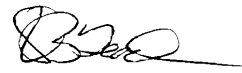Product Name :   Portable Thermal Printer

Model Number :   M9490

Conforms to the following Product Specifications :

Safety :   EN60950 1988 / AM1: 1991 / AM2: 1991

EMC :   CISPR 22, EN 55022 Class B / 1985
FCC Part 15, Subpart B, Class A

EMI :   EN 50082-1 Generic Immunity Standard / Jan. 1992
IEC 801-2 ESD 8KV Contact, 8KV Air Discharge
IEC 801-3 Radiated Electromagnetic, 3V/m
IEC 801-4 Electrical Fast Transient / Burst

Ergonomics :   **NA**

Supplementary Information :

Miamisburg, Ohio	March 9, 1995	
Location	Date	Signature

Table of Contents

Chapter 1.   Getting Started

This printer is a portable, online-only unit used to print labels. The host must download data to the printer before the printer can print.

When you first receive the printer:

✦ Charge and load the battery or load the AC power pack. See "Loading and Removing the Battery" or "Connecting the AC Power Supply."

✦ Load supplies. See Chapter 2, "Loading Supplies."

✦ Connect the printer to a host to receive print jobs. See Chapter 3, "Printing."

✦ Make sure communication values at the printer and the host are the same. Ask yor System Administrator or see the *MPCL II Programmer's Manual* for information on setting these values.

Additional Optional Manuals

✦ *MPCL II Programmer's Manual* (TCMPCL2PM): explains how to design labels, create formats, and use online commands to control the printer.

✦ *MPCL II Optional Fonts Manual* (TCMPCL2OF): explains how to use the optional fonts you can purchase separately.

Audience

The *Operator's Handbook* is designed for the person printing and applying labels.

This chapter tells you how to:

- ✦ charge, load, and remove the battery
- ✦ connect the AC power supply
- ✦ attach the shoulder strap
- ✦ use the printer's trigger and LED.

Charging the Battery

The printer is shipped with a 13.2VDC NiCd battery and an 8-hour "trickle" battery charger. The battery can be used and recharged daily for approximately two years. When the battery is not in use and not recharging, the battery loses 2-3% of its charge per day. Environments with extreme heat increase the discharge rate.

Before operating the printer, you must charge the battery and load it into the printer. You can use any of these chargers:

- ✦ 8-hour "trickle" charger
- ✦ 1-hour "fast" charger
- ✦ 4-station charger.

See Chapter 6, "Specifications," for information on charger options.

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

Charge the battery:

+ before using it for the first time
+ before lengthy printing sessions
+ as soon as the LED indicates a "low battery" condition (slow flashing green for a low battery, fast alternating green/amber flashing for a "too low to operate" battery, or no LED for a dead battery).

NOTE

If you continue to print with a low battery, your print quality may deteriorate.

When using or storing the charger:

+ **Do Not** wrap the cord around the charger.
+ **Do Not** pull or put unusual stress on the cord.

CAUTION !

Before loading or removing the battery, turn the printer off.

To charge the battery:

1. Turn the printer off. (|) indicates on and (O) indicates off.

2. The battery can be charged on or off the printer. Plug the connector on the charger cord into the socket on the battery as shown.

3. Plug the charger into a grounded electrical outlet of the correct voltage. Allow the battery to charge for a full 8 hours (when using the standard "trickle" charger).

NOTE If you have a problem with short battery life, clean the battery contacts. See Chapter 4, "Care and Maintenance."
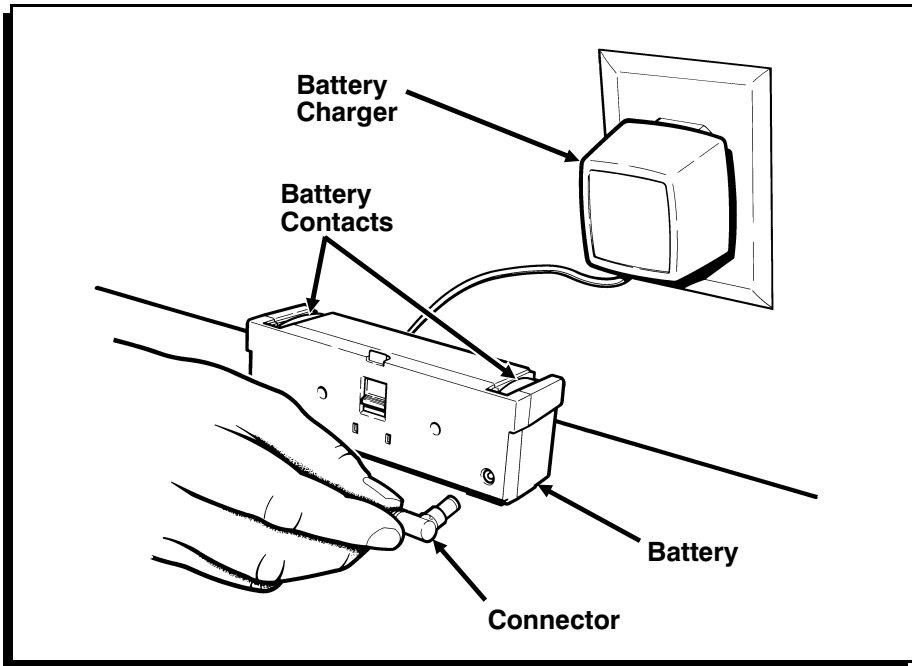
Loading and Removing the Battery

To load a battery:

1. Turn the printer off. (|) indicates on and (O) indicates off.

2. Turn the printer so the back of the printer faces you.

3. Insert the tabs on your battery into the slots of the battery well in the base of the printer. Push down until the latch clicks.
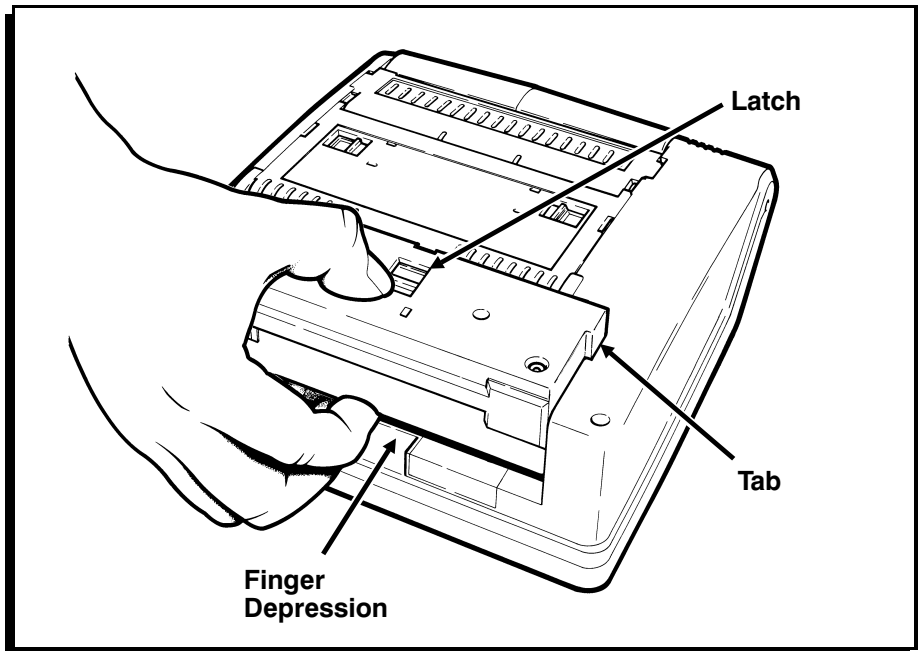
To remove the battery, press down on the latch with your thumb while inserting your fingers into the depression. Lift the battery out of the well as shown.

Connecting the AC Power Supply

CAUTION ! Before you plug or unplug the power supply, turn the printer off. Only AC power supplies approved for this printer should be used. Using any other AC power supply may damage the printer.

To load the AC power pack:

1. Turn the printer off. (|) indicates on and (O) indicates off.

2. Turn the printer so the back of the printer faces you.

3. Insert the tabs on the AC power pack into the slots of the battery well in the base of the printer. Push down until the latch clicks.

NOTE To remove the AC power pack, press down on the latch with your thumb while inserting your fingers into the depression. Lift the power pack out of the well as shown.
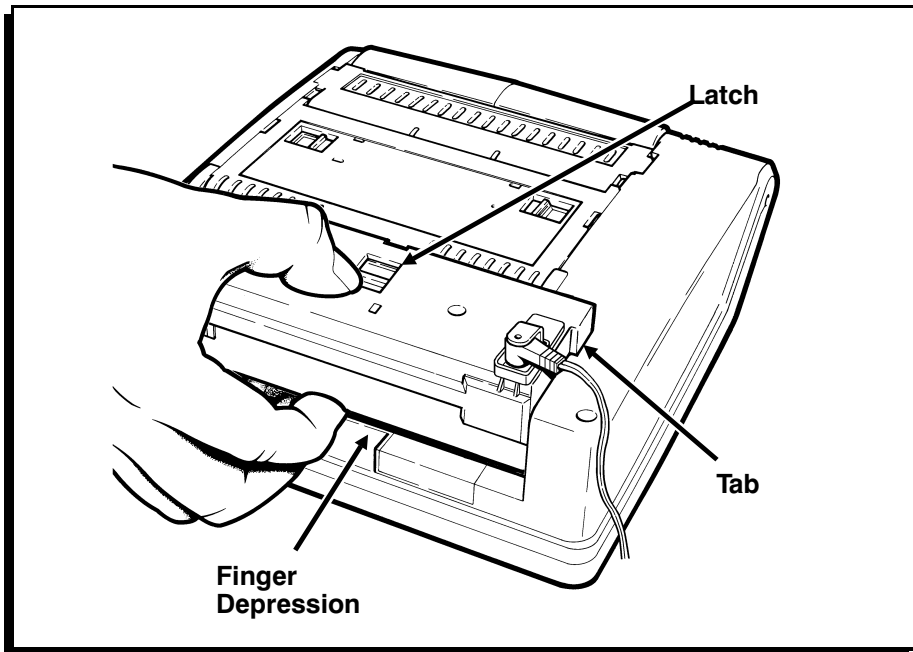
4. Plug the AC power supply into a grounded electrical outlet of the correct voltage.

AC Power Supply

AC Power Pack
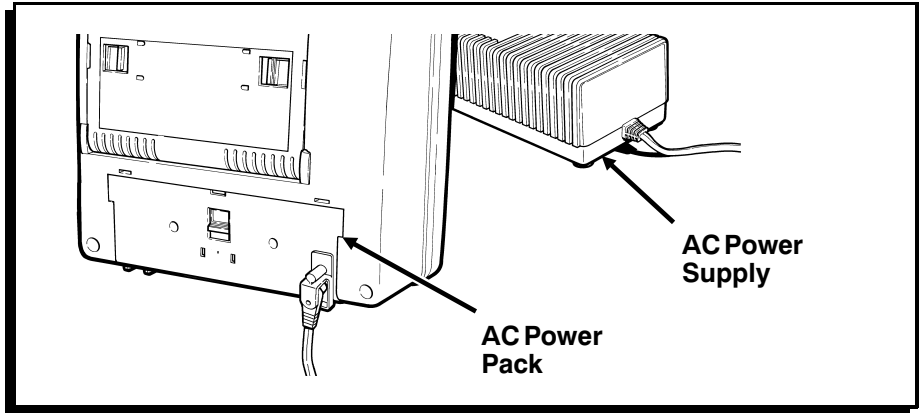
Connecting the Shoulder Strap

To connect the shoulder strap:

1. Assemble the strap, knob, and washers as shown.

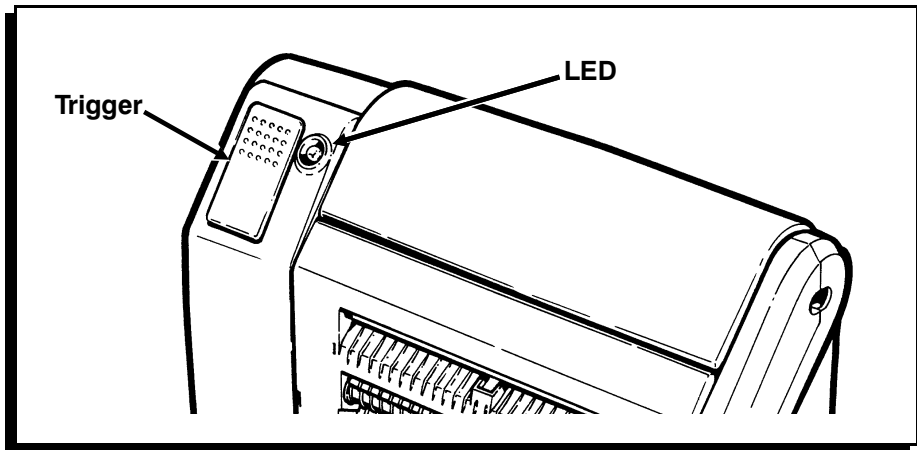**2.** Insert the assembly into the printer and tighten it.

Strap

Knob

Washers
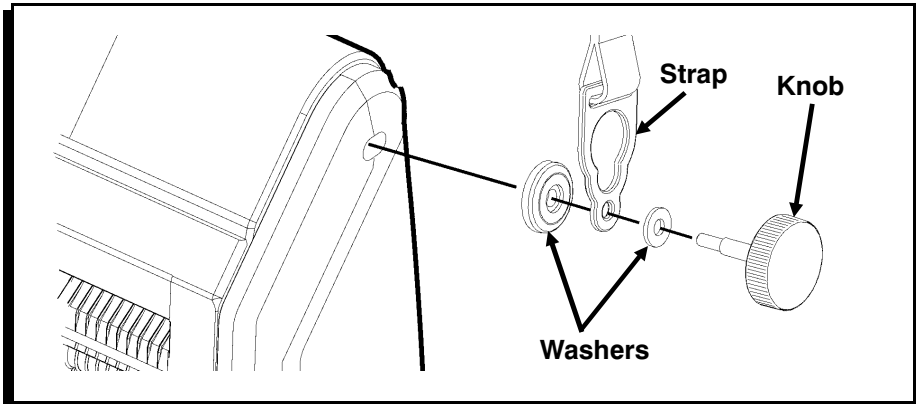
3. Repeat for the other side of the printer.

Do Not overtighten.

CAUTION
!

Using the Trigger and LED

The trigger and LED are located on the top of the printer as shown.

The trigger serves several purposes:

✦ calibrates the first label or tag after you load supplies into the printer. See Chapter 2, "Loading Supplies."

✦ prints labels. See Chapter 3, "Printing," for more information.

✦ clears most error conditions. See Chapter 5, "Troubleshooting," for more information.

✦ prints a test label. See Chapter 5, "Troubleshooting," for more information.

✦ pauses or cancels a print job. See Chapter 3, "Printing," for more information.

The LED light indicates certain printer conditions or problems. The LED blinks or displays solid amber, green, or a combination of these colors. For example, a solid green or amber LED means the printer is turned on and operational. A fast-blinking green LED means the printer contains a print job and is ready to print. See Chapter 5, "Troubleshooting," for a complete description of LED indications.

Chapter 2. *Loading Supplies*

The printer can print on labels. We recommend you use synthetic supplies to print serial or high-density bar codes.

Opening the Printer

Before loading ribbon or supplies, you must open the printer:

1. Insert your fingers into the depression beneath the faceplate and pull up.

Supply Guide

Faceplate
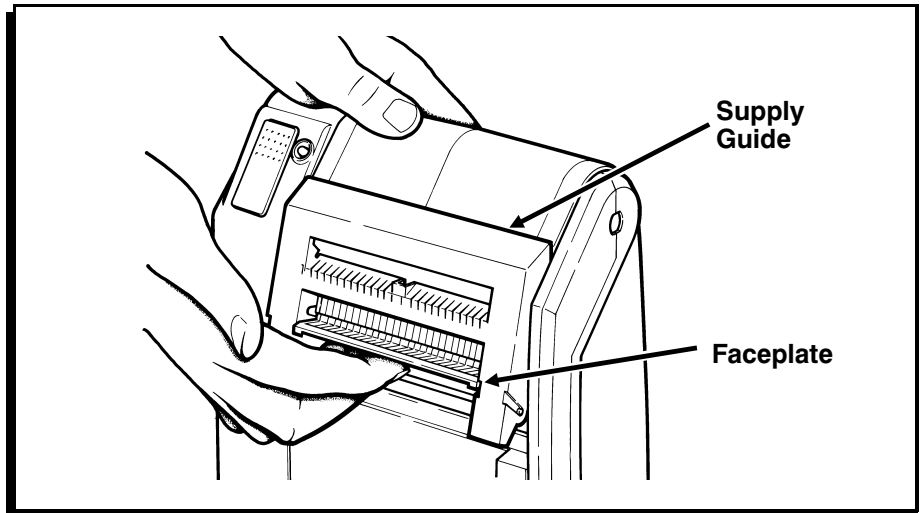
2. Pull the supply guide forward and down as shown.

Supply Guide
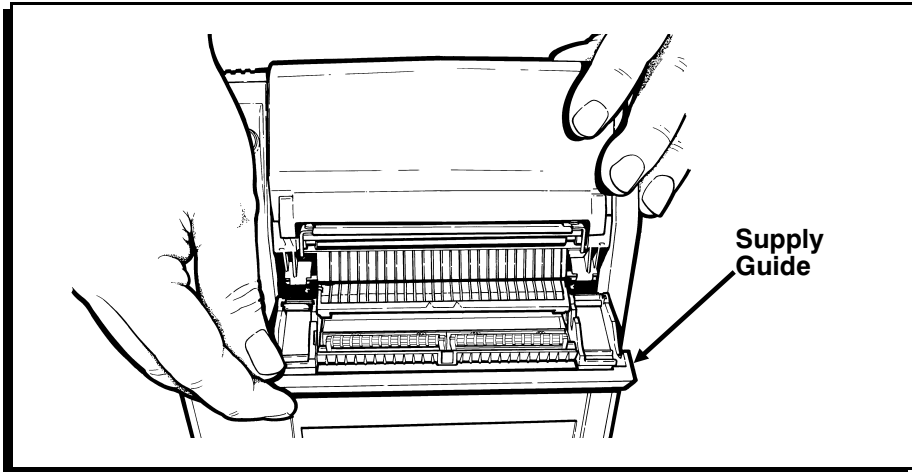
3. Tip the printhead assembly up and over the platen roller as shown.

Printhead Assembly

Platen Roller

Pinch Rollers

Peel Bar
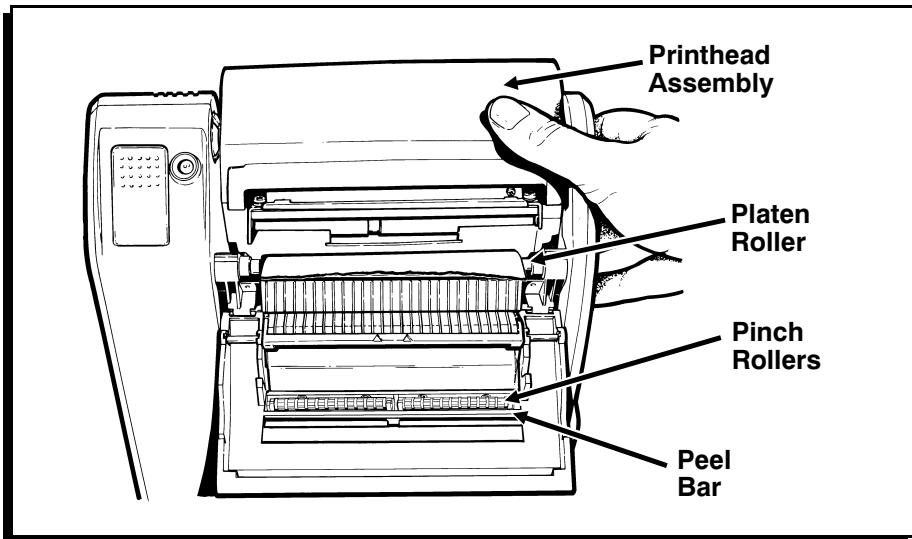
4. Slide the latches on the back of the printer toward the center.

Latches
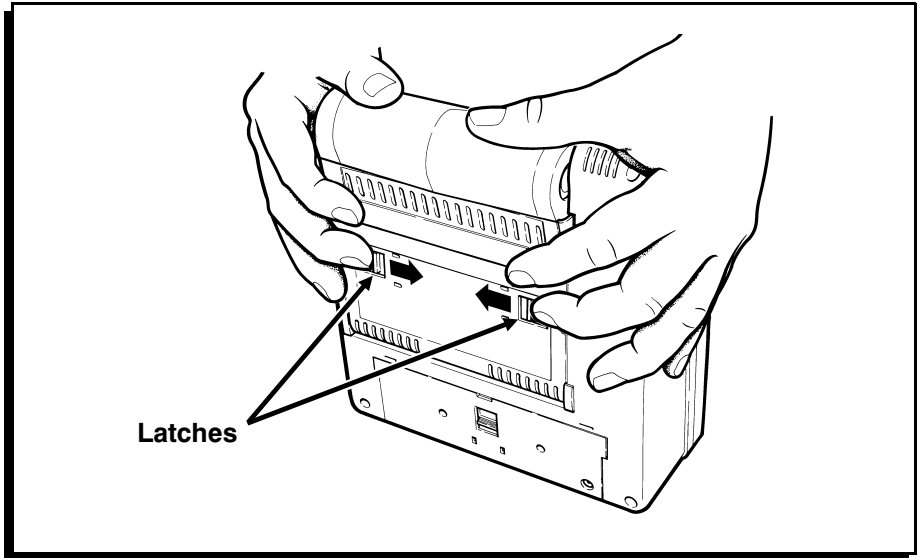
5. Continue to push the printhead assembly toward the rear of the printer until it opens completely.

Printhead Assembly
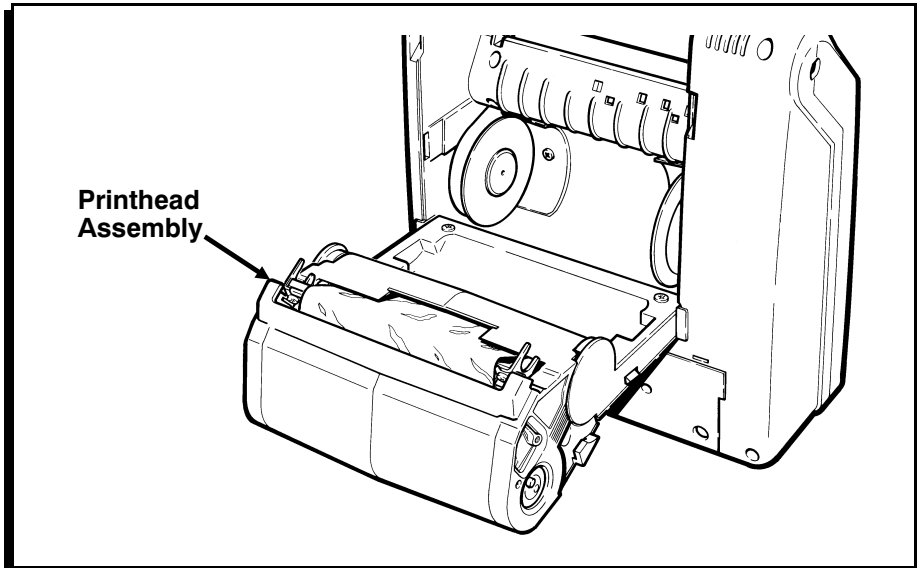
6. To close the printer, push the printhead assembly toward the printer, close the supply guide and latch the faceplate into place.

Loading Ribbon

Use ribbon when printing on thermal transfer supplies.

To load the ribbon cassette into the printer:

1. Open the printer and remove the ribbon cassette.
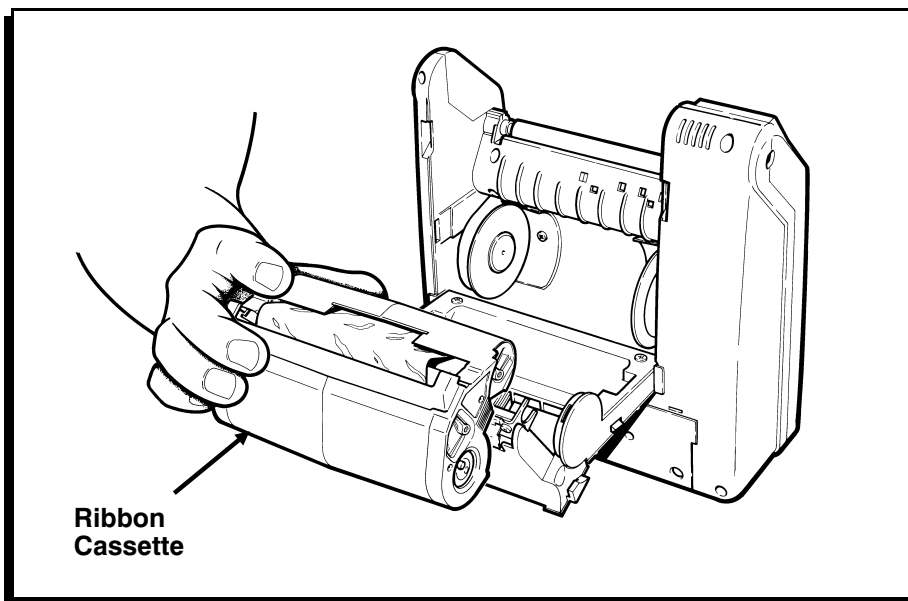
Ribbon Cassette

2. Slide a new ribbon cassette onto the printhead assembly until it slips into place.

3. Close the printer.

Reloading a Ribbon Cassette

To reload your ribbon cassette, remove the ribbon cassette from the printer and follow these steps:

1. Locate the end of the cassette with the two latches.

NOTE

Locate the International Symbols for opening and closing. ($\frac{\doteq}{\div}$) indicates the cassette is locked (closed). ($\frac{\doteqdot}{\div}$) indicates the cassette is unlocked (open).

2. Rotate both latches until they snap into the unlocked position.

3. Lift off the half of the cassette without the latches and set it aside.
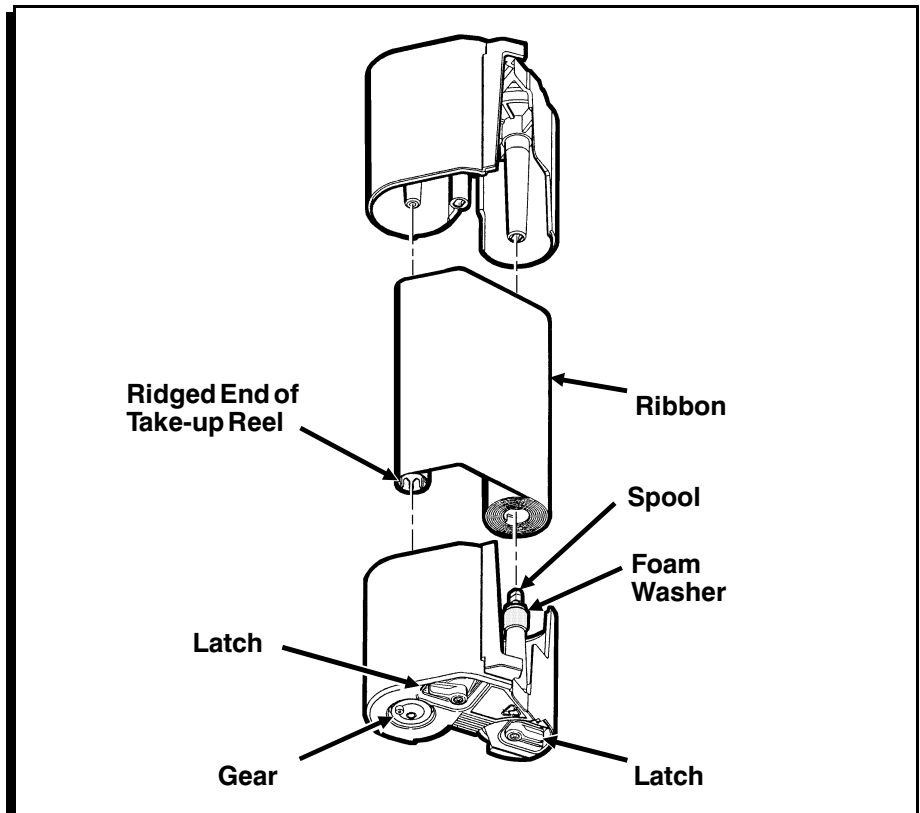
4. Remove the used ribbon and take-up reel and discard. Open a package of new ribbon.

NOTE

Do Not wrinkle or crush the ribbon.

5. With the ridged end of the take-up reel facing down, place the ribbon roll on the spool with the foam washer (on the half of the cassette with the latches). Do not push the ribbon roll down onto the spool yet.

6. Feed the ribbon around the guides and place the take-up reel onto the shorter spool.

7. Twist the ribbon roll back and forth as you firmly push it down until it is seated on the spool.

NOTE

✦ **Do Not** force the ribbon roll down onto the spool; you could damage the foam washer.

✦ Make sure the preprinted side of the ribbon faces out.

✦ Make sure the latches are still in the unlocked position (⇌) before fitting the two halves of the cassette together.

✦ If you are using a 2-inch or 3-inch-wide ribbon, push the core of the ribbon roll to seat the ribbon roll onto the cassette's spool. Do not touch the ribbon because it may wrinkle and twist.

8. Replace the other half of the cassette. The two halves should fit together completely. Rotate the latches until they click into the closed position (⇌).

9. Check to make sure that the ribbon is loaded correctly; the ribbon should be wound tightly inside the cassette. Turn the gear counterclockwise with your fingers until the black portion of the ribbon is exposed.

10. If the ribbon does not advance, or if it is hard to turn the gear, repeat the loading procedure.

Loading Supplies

We recommend synthetic supplies when printing serial or high-density bar codes. Use only paper labels for peel mode. For label sizes, see Chapter 6, "Specifications."

You can load supplies with the following widths:

✦ 2" (51mm)   ✦ 3.5" (89mm)

✦ 2.5" (64mm)   ✦ 4" (102mm)

✦ 3" (76mm)

You can load supplies two ways:

✦ *Peel mode* peels the label from the backing paper while it feeds through the printer. This mode requires paper, black-marked labels. Your printer must be set to On-demand mode. The LED is solid green.

✦ *Non-peel mode* feeds without peeling labels from the backing paper. This method is used primarily for printing label strips. Your printer must be set to Continuous mode. The LED is solid amber.

Loading for Peel Mode

Peel mode separates labels from the backing paper.

NOTE Use only paper labels for peel mode. Also, before loading labels, make sure the label path is clean. Refer to Chapter 4, "Care and Maintenance."

To load your labels:

1. Open the printer.

2. Squeeze the tabs on the supply holders and align the arrows to the width of your supply. The supply holders lock at each width.
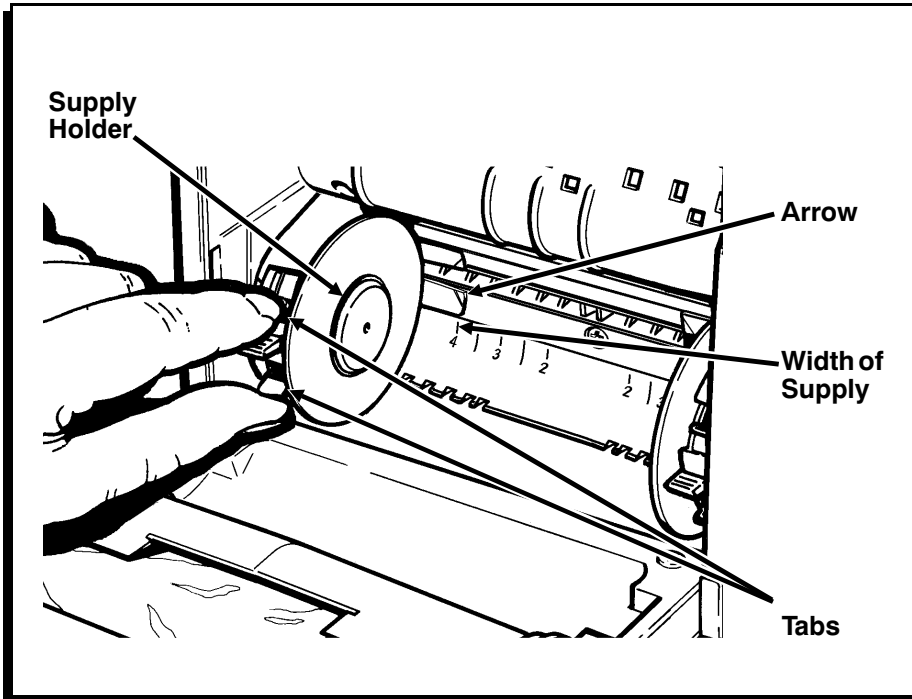
3. Insert the roll of labels between the supply holders and press until the supply holders lock into the label roll. The label roll should unwind as shown.
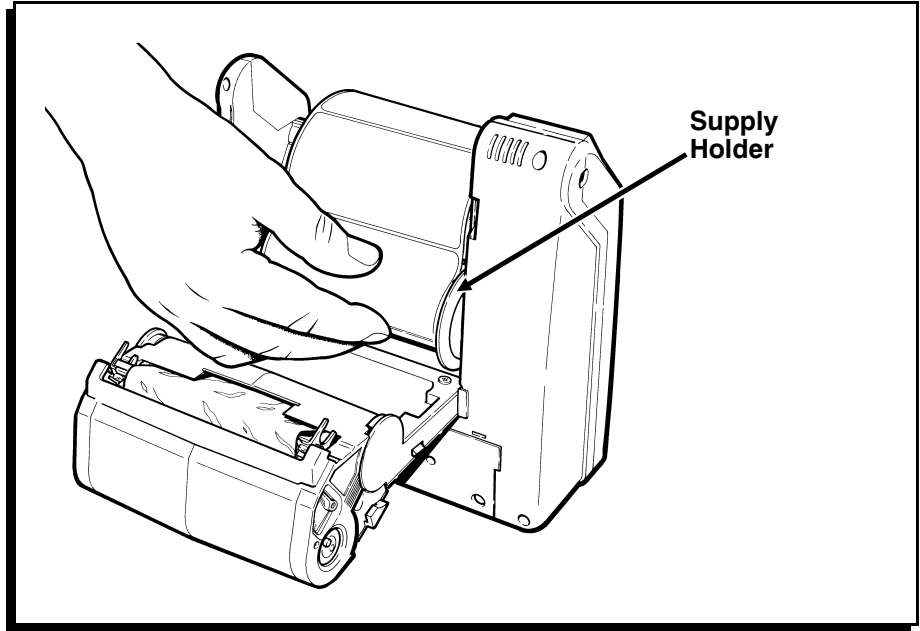
NOTE Make sure the labels turn freely in the supply well.

4. Feed the labels over the peel bar and through the lower opening in the supply guide.
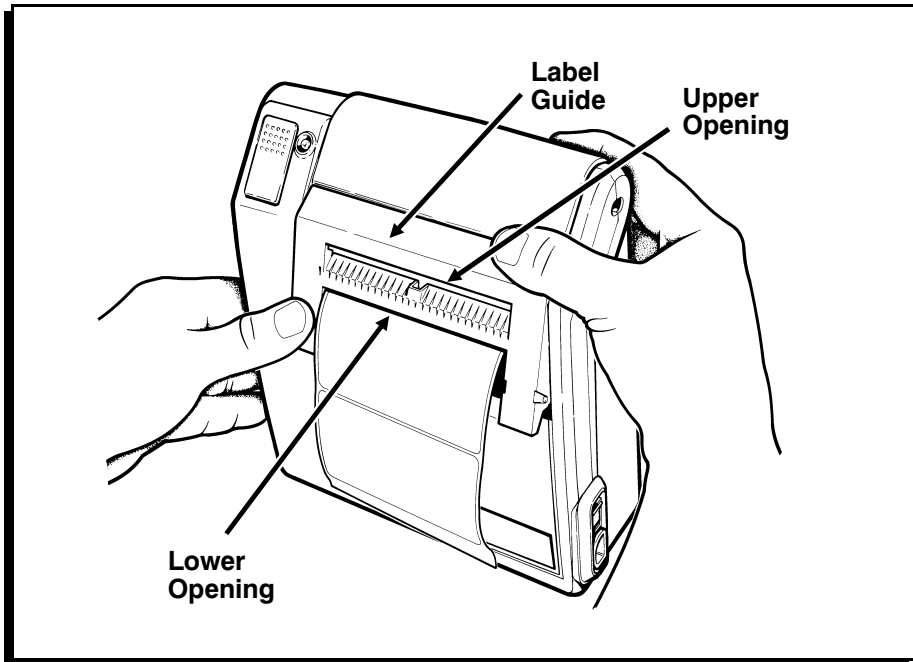
5. Close the printer and turn the printer on.

6. Wait until the LED flashes one time (about five seconds) and then press the trigger. The printer advances the first label to the correct position for printing. When you print, labels peel automatically through the top opening in the supply guide and the backing paper exits out the bottom opening.

NOTE The LED slowly alternates flashing amber and green to indicate the printer is out of labels. When this happens, load a new roll of labels and press the trigger to clear the error.

Loading for Non-Peel Mode

Non-peel mode feeds the supplies through the printer without peeling them from the backing paper.

NOTE

Before loading supplies, make sure the supply path is clean.

To load your supplies:

1. Open the printer.

2. Squeeze the tabs on the supply holders and align the arrows to the width of your supply. The supply holders lock at each width.
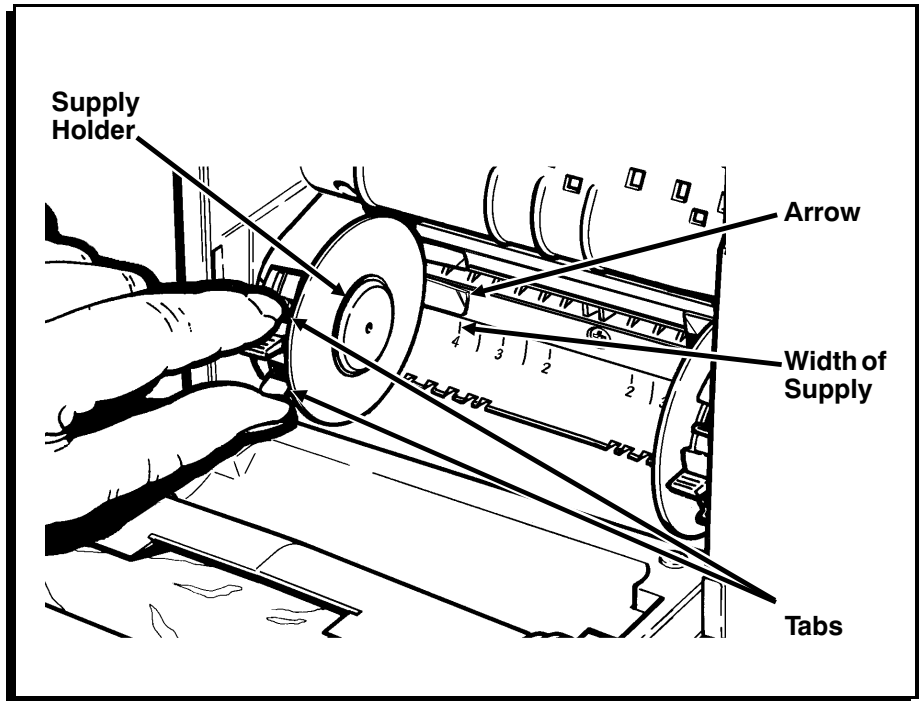
3. Insert the roll of supplies between the supply holders and press until the supply holders lock into the supply roll. The supply roll should unwind as shown.
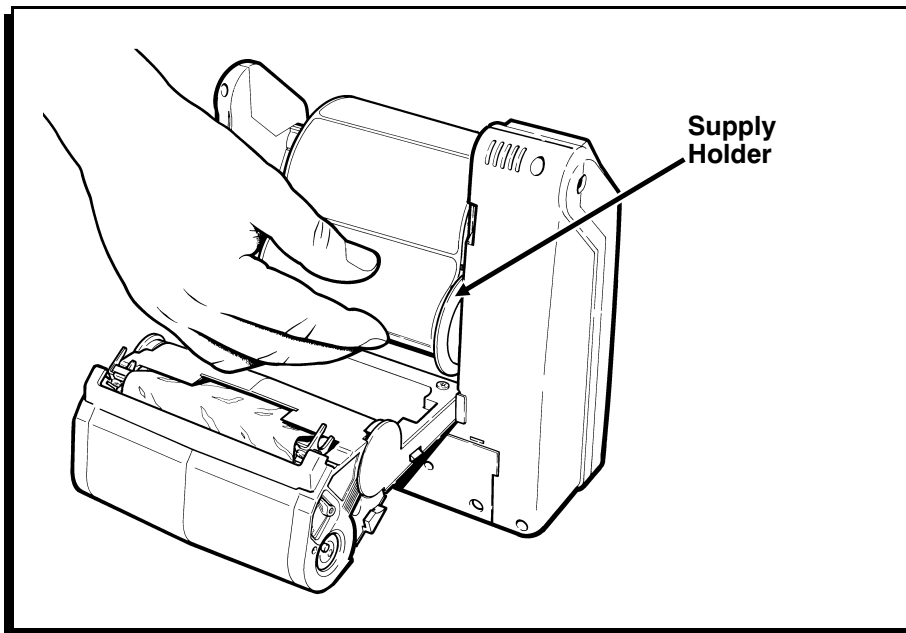
**Supply
Holder**

NOTE Make sure the supplies turn freely in the supply well.

4. Feed the supplies through the upper opening in the supply guide.
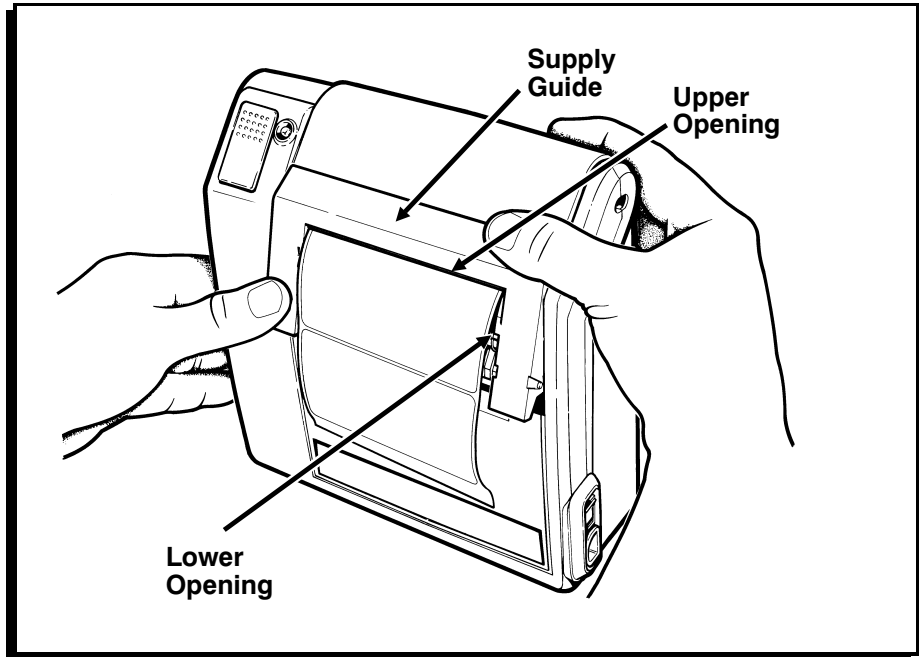
5. Close the printer and turn the printer on.

6. Wait until the LED flashes one time (about five seconds) and then press the trigger. The printer advances the supply to the correct position for printing.

The LED slowly alternates flashing amber and green to indicate the printer is out of supplies. When this happens, load a new roll of supplies and press the trigger to clear the error.

# Chapter 3.   Printing

The host sends online packets containing print jobs to the
printer. This chapter describes how to communicate with the
host and print the jobs the host sends.

Establishing Communications

Before the printer can accept print jobs from the host, you
must:

✦ connect the communications cable to the printer and to
the host.

✦ verify that the printer's communication values match
the values set at the host.

Connecting the Communications Cable

To connect the communications cable to the printer:

1. Grasp the cable holder and align it with the printer port as
shown.
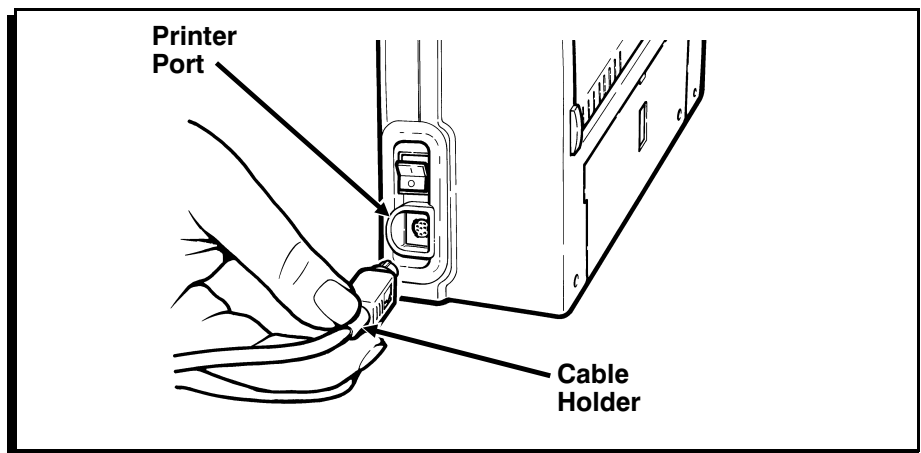
2. Insert the connector into the printer port until the connector locks into place. You may hear a click as the cable's latch snaps into place.

3. Gently pull on the cable holder to make sure it is secure.

4. Plug the other end of the cable into the port on your host.

Removing the Communications Cable

Please follow these instructions carefully. The cable could be damaged if removed incorrectly. To remove the cable from the printer:

1. Hold the printer steady with one hand.

2. Grasp the cable holder with your other hand and push it in to unlock the cable's latch.

Release
Slide
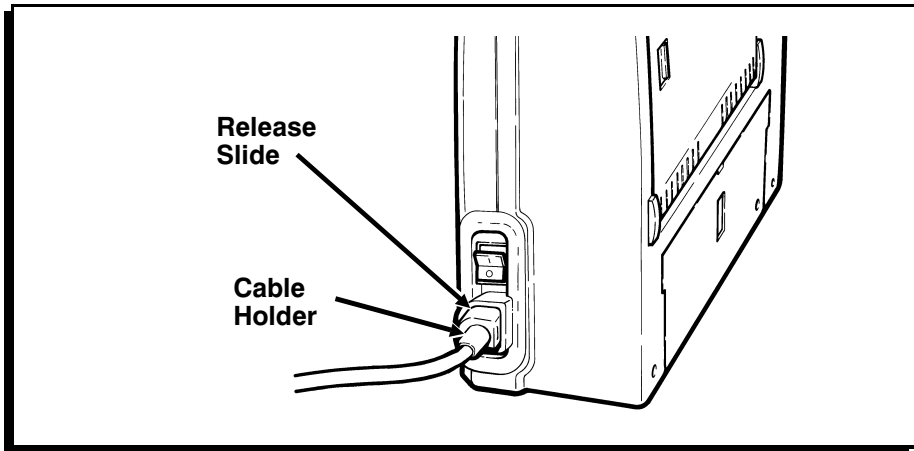
Cable
Holder

3. Release the cable holder and grasp the release slide.

4. Gently pull the release slide to remove the cable.

NOTE

Do Not yank the cable from the printer.

Communication Values

In order for your printer to communicate with your host, you must make sure the communication values are set to the same values. The default values shipped with the printer are:

- ✦ Baud: 9600
- ✦ Word Length: 8-bit data frame
- ✦ Stop Bits: 1-stop bit
- ✦ Parity: none
- ✦ Flow Control: DTR

To change the printer's communications values, see your System Administrator or the *MPCL II Programmer's Manual*.

Printing in On-Demand Mode

In On-demand mode, the printer prints one label at a time. After the first label prints, the printer waits for you to remove the label before it prints the next label. For On-demand printing, your labels must be loaded in peel mode.

On-demand mode is the default mode for the printer (the LED is solid green). If the LED is solid amber, the printer is in Continuous mode. To switch to On-demand mode, ask your System Administrator to re-configure the printer.

To print labels on demand:

Use only paper labels in peel mode.

NOTE

1. Load the labels for peel mode. See Chapter 2, "Loading Supplies."

2. Make sure the host has downloaded a print job. See the *MPCL II Programmer's Manual* for more information. After the print job is downloaded, the LED rapidly blinks green (1/4 sec) to indicate the printer is ready to print.

3. Press the trigger to print the label.

4. After each label prints, remove it.

Printing in Continuous Mode

In Continuous mode, the printer prints a strip of labels. The LED should be solid amber. If the LED is solid green, the printer is in On-demand mode. To switch to Continuous mode, ask your System Administrator to re-configure the printer.

To print in Continuous Mode:

1. Load the labels for non-peel mode. See Chapter 2, "Loading Supplies."

2. Make sure the host has downloaded a print job. See the *MPCL II Programmer's Manual* for more information. After the print job is downloaded, the LED is solid amber to indicate the printer is ready to print and labels will print automatically.

3. Remove the strip from the printer.

Do Not jerk or pull labels strongly against the printhead. This may cause a label jam.

Interrupting a Print Job

You can use the trigger to cancel or pause the current print job:

✦ To pause the current print job (Continuous mode only), press the trigger once. The current print job stops temporarily. To resume printing, press the trigger again. The LED does not indicate when the printer is paused. The LED remains solid amber.

✦ To cancel the current print job, hold down the trigger until printing stops. The job is canceled and the data is lost. The host must download the job again before you can resume printing.

You cannot cancel a print job when there is an error in the printer until you acknowledge the error (by pressing the trigger).

Chapter 4. Care and Maintenance

CAUTION!

Do Not use sharp objects to clean the printer. This may damage the printer and void your warranty.

This chapter tells you how to:

- ✦ clear label jams
- ✦ clean the printhead, peel blade, pinch rollers, peel bar, and platen roller
- ✦ clean the battery contacts.

Clearing Label Jams

When you are printing and a jam occurs, the LED flashes amber and green.

To clear a label jam:

1. Turn the printer off and open the printer.

2. Remove the label roll.
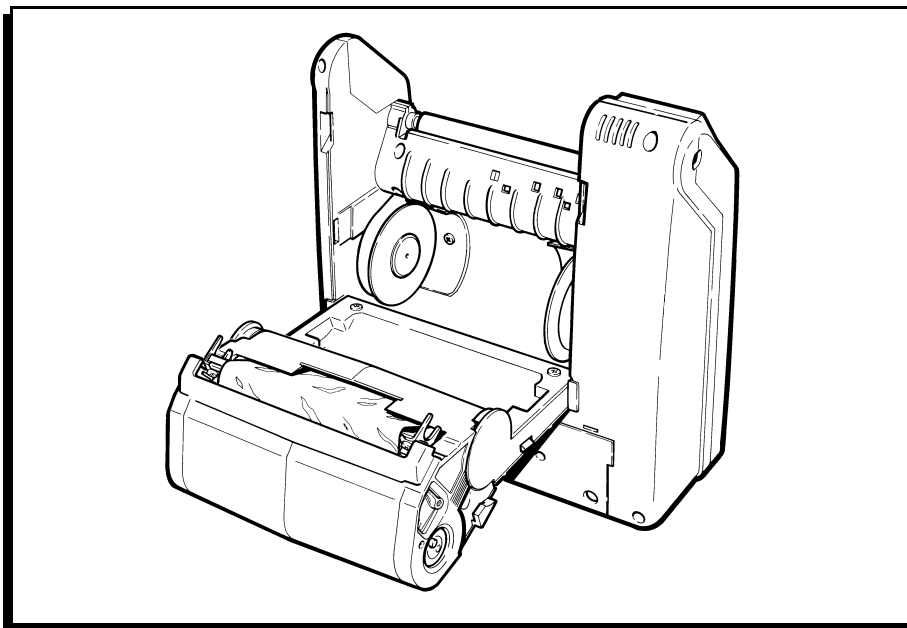
3. Remove the jammed labels and reload the label roll.

4. Close the printer and turn it on.

5. Wait until the LED flashes one time (about five seconds) and then press the trigger to resynchronize the supplies.

Cleaning

You may need to clean the printhead, platen roller, pinch rollers, peel bar, and peel blade:

- ✦ after 8 rolls of supplies
- ✦ daily if your printer is in an excessively dirty, hot or humid environment
- ✦ when you see voids in the print as shown.

Voids   **Correct Print**

To clean the printhead, platen roller, pinch rollers, peel bar, and peel blade:

Do Not touch the printhead with your hands. This may damage the printhead.

1. Turn the power off and open the printer.
2. Remove the label roll and ribbon cassette (when cleaning the printhead).

3. Moisten a cotton swab with alcohol. Rub it back and forth across the printhead, platen roller, pinch rollers, peel bar, and peel blade to remove build-up. Make sure the printhead, platen roller, pinch rollers, peel bar, and peel blade are clean.
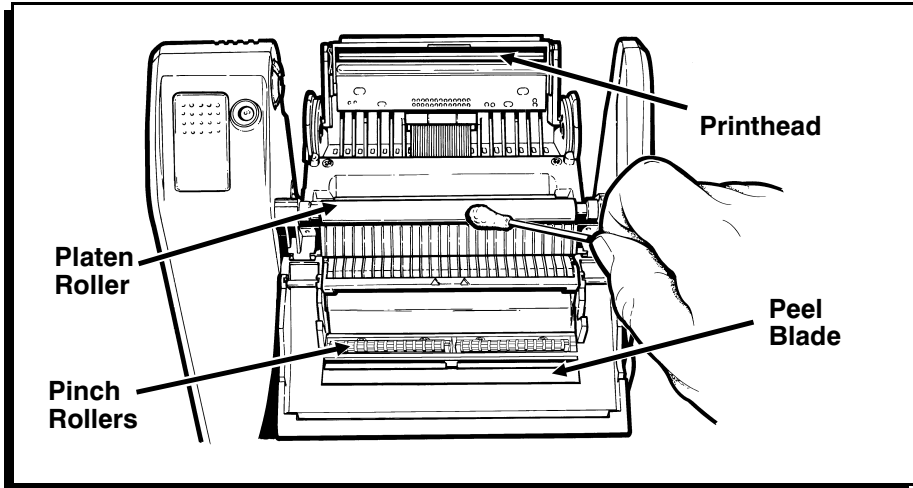
4. Let the printer dry and reload your supplies.

Cleaning the Battery Contacts

You may need to clean the battery contacts if your battery has a short life.

To clean the battery contacts:

1. Turn the printer off.

2. Remove the battery from the printer.

3. Rub an eraser back and forth on the battery contacts on the battery as well as inside the battery well. Make sure they are clean.

4. Reload the battery.

Chapter 5. Troubleshooting

The printer uses a combination of LED lights to display a variety of printer states. See the "Problems and Solutions" section for those requiring further actions.
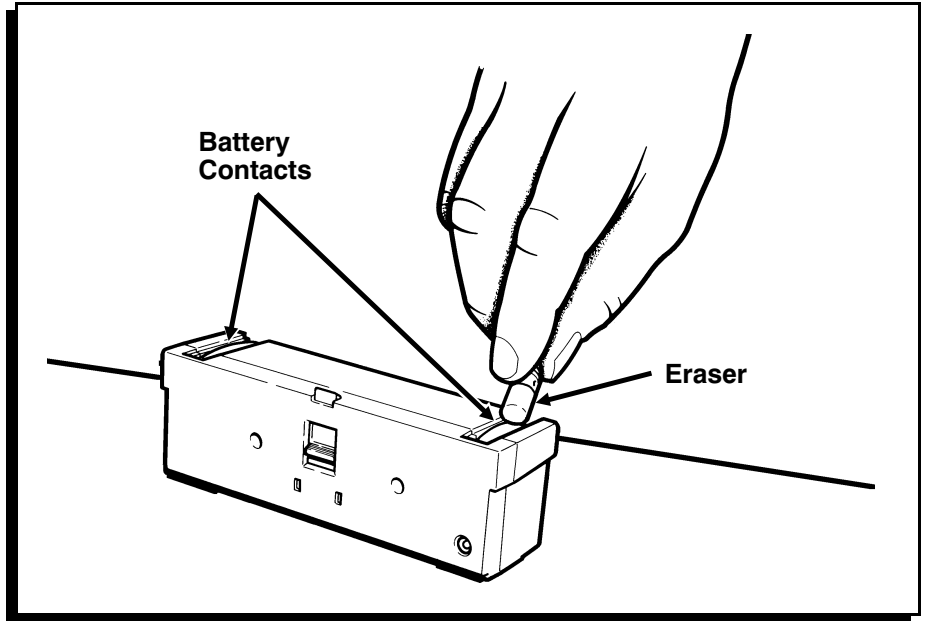
When an error occurs that you cannot clear, print a test label before calling Service or sending the printer in for repair.

Printing a Test Label

CAUTION ! Turn the printer off and disconnect the host from the printer before printing a test label. While printing the test label, the printer sends a character string to the communications port. This could cause problems at the host.

Before you call for service, print a test label. The label contains information to help Service diagnose mechanical and setup problems. To print a test label, hold the trigger down and turn the printer on. The LED remains off for 1 second, turns amber for 2 seconds, and then turns off again. Release the trigger as soon as the amber LED turns off.

If the printer is in On-demand mode, the LED rapidly blinks green. Press the trigger to dispense the test label. If the printer is in Continuous mode, a test label prints automatically.

```
              MONARCH MARKING
MODEL:      M9490:15v SOFTWARE:  V3.0
STOCK CNT:  0000053   COM:       9600.N.8.1.D
ENQ/IMD:    05/5e     MPCL:      {,"¦}"
ENQ TRL:    --/--/--  RS232 TRL: 0d/0a/--
CONTRAST:   +000      CODE PAGE: 0
AVG PH RS:  +365      VOLTAGE:   13.97
```
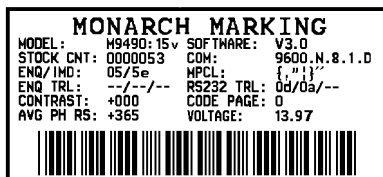
The test label displays the following information:

+ Model number (`Model:`)
+ Software version (`Software:`)
+ Number of supplies printed (`Stock CNT:`)
+ Communication settings (`COM:`)
+ Printhead information (`AVG PH RS:`)
+ Test pattern.

Turn the printer off and then back on to return to normal printing.

For more information on troubleshooting, see your *MPCL II Programmer's Manual*.

LED Indicator

This table explains the meanings of various LED states. Use the color of the LED and whether it is solid, blinking slowly, or blinking rapidly to determine the meaning of the indicator.

LED States	Solid	Fast Blink (¼ second)	Slow Blink (2 seconds)
GREEN	Ready... On-Demand	Label Ready	Low Battery
AMBER	Ready... Continuous	Packet Syntax Error	Printhead Hot...Wait
AMBER/ GREEN	N/A	Hardware Error or printer failure	Imaging Error

Your System Administrator can use Status Polling, an online diagnostic command, to get a more specific description of the printer error. See your *MPCL II Programmer's Manual* for information about Status Polling.

Problems and Solutions

This section helps you correct some problems that may occur. If you cannot fix a problem, please contact Service.

Problem	Solution
Light printing or voids in printing.	Make sure the supplies are loaded correctly.
	Check the supplies for damage or defects. Reload supplies or ribbon if necessary.
	Check the roller for jammed supplies.
	Check the supply type. Download the correct supply type command.
	Check the contrast adjustment.
	Download the correct contrast adjustment command.
	Turn the printer off and switch to a fully charged battery.
	Clean the printhead. See "Care and Maintenance."
Printer does not start.	Make sure the power supply is connected and plugged in to the printer. Call Service.
Printer does not print.	Make sure the power supply is connected to the printer and plugged into a live outlet.
	Make sure the printer is not paused (try pressing the trigger to resume printing).
	Check the battery.
	Make sure the correct commands have been downloaded.
	Make sure the supplies are loaded correctly.
	Make sure the communications cable is connected.

Problem	Solution
Printer does not feed.	Check battery.
	Reload supplies.
	Verify that the ribbon is not out and that a label is not jammed in the label path.
Slow or sluggish feeding.	Make sure supplies are loaded correctly.
	Check for adhesive build-up in the feed path and on the peel blade.
Label Jam.	Remove jammed supplies.
	Clean the printer.
Battery won't charge.	Make sure battery is connected correctly.
	Make sure charger is plugged into a live outlet.
No LED.	Make sure power is on.
	Check battery.
	Make sure the power supply is connected to the printer and plugged into a live outlet.
Printer does not respond.	Check battery.
	Check communication settings.
	Check communications cable.
	Print a test label. If you see **ADDRESS:** your printer has an address assigned. If you are not using the Mobile Printing Station, remove the address. See *Addressing a Monarch® 9490™ Printer* addendum (TCMPCLIDAD) for more information or call Technical Support.

Chapter 6.   *Using the Boot*

The Monarch® Renegade® 4 printer's boot protects it if you accidentally drop it, hit it against something, or jar it in some other manner. Following is an illustration of the boot on the printer.
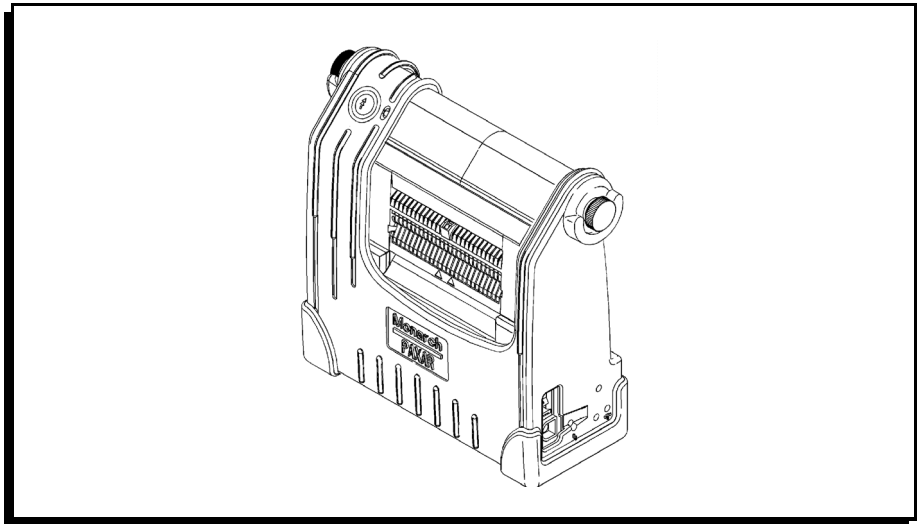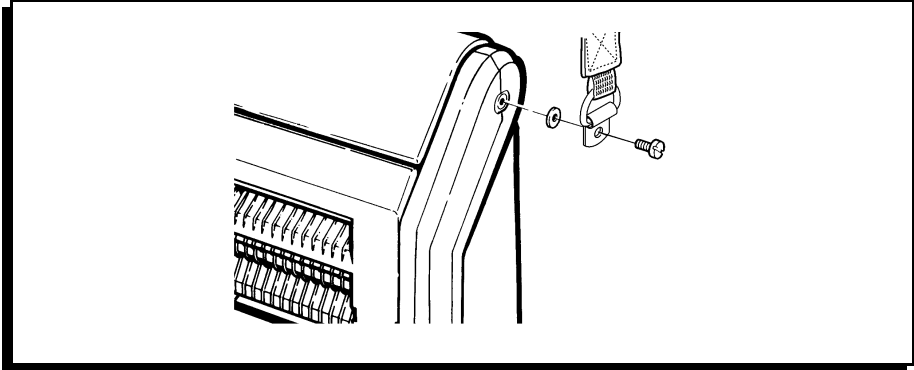

Putting the Boot on the Printer

To put the boot on the printer:

1. **Industrial Version Only.** Remove the cable from the side of the printer. Save the cable's screws for when you want to use the printer without the boot.

2. Unscrew the screw assemblies at the top of the printer (either shoulder strap is optional), and take them off. Save them for when you want to use the printer without the boot.

3. Pull on the boot and fit it around the printer.

4. **With Shoulder Strap Only.** For both sides of the printer, put together the knob assembly and screw it into the threaded insert. Do not over-tighten the assembly.

5. **Industrial Version Only.** Put together screw assemblies using the longer screws. Then, replace the cable.

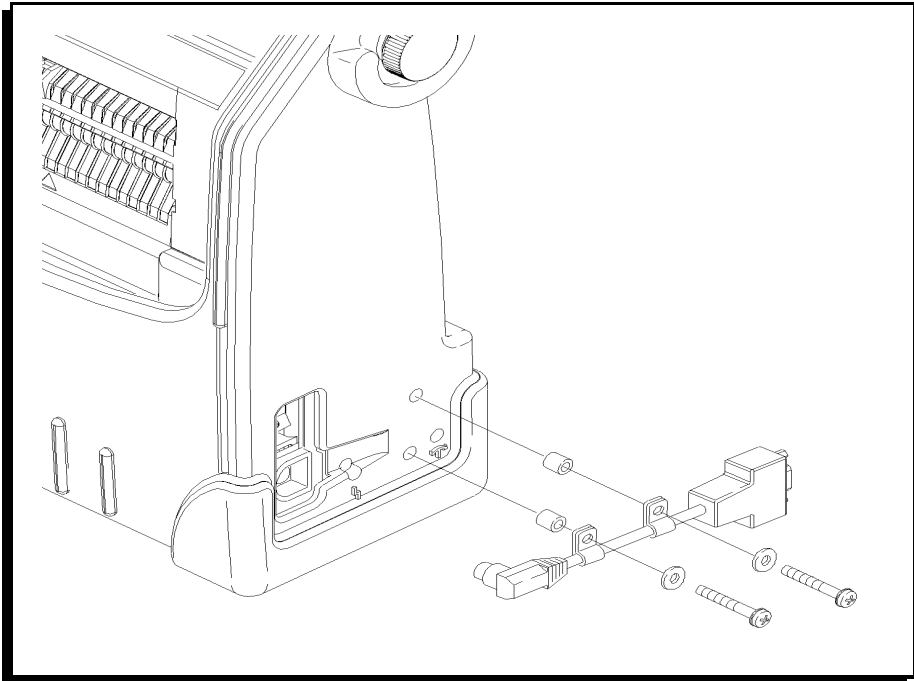## *Taking the Boot off the Printer*

To take the boot off the printer:

1. **Industrial Version Only.** Remove the cable from the side of the printer. Save the spacers and longer screws for when you want to use the printer with the boot.

2. **With Shoulder Strap Only.** Unscrew the knob assemblies on both sides of the printer (including the shoulder strap, if used), and take them off.

3. Pull on the boot and remove it from around the printer.

4. For both sides of the printer (at the top), put the screw assemblies together (including either shoulder strap, if preferred), put them into the threaded inserts and screw them in.

Do not over-tighten the assembly.

NOTE

5. **Industrial Version Only.** Reattach the cable using the shorter screws without the spacers.

Chapter 7.   *Using the Cable Cover*

You use the cable cover with the industrial version of the
Monarch® Renegade® 4 printer. The cover holds the cable in
place. You can use the cable cover with or without the
printer's boot.
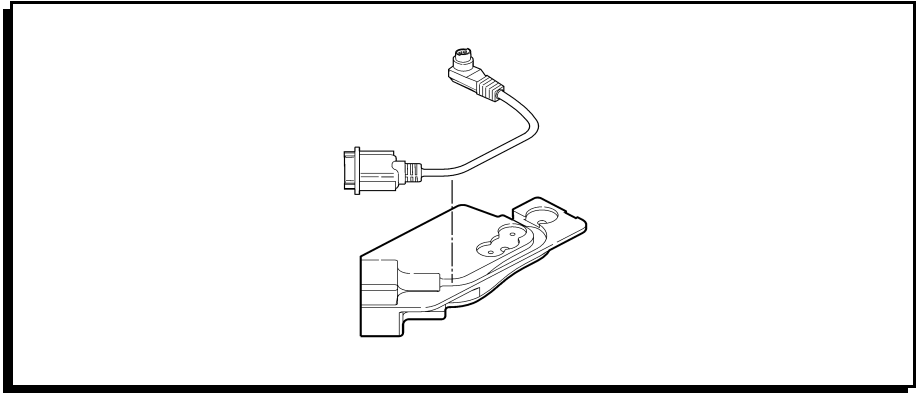
Attaching the Cable Cover

To attach the cable cover:

1. Remove the cable from the printer.

2. **Boot Only.** Insert the spacers into the holes on the lower
   right side of the printer. (You can have the boot on or off
   the printer.)
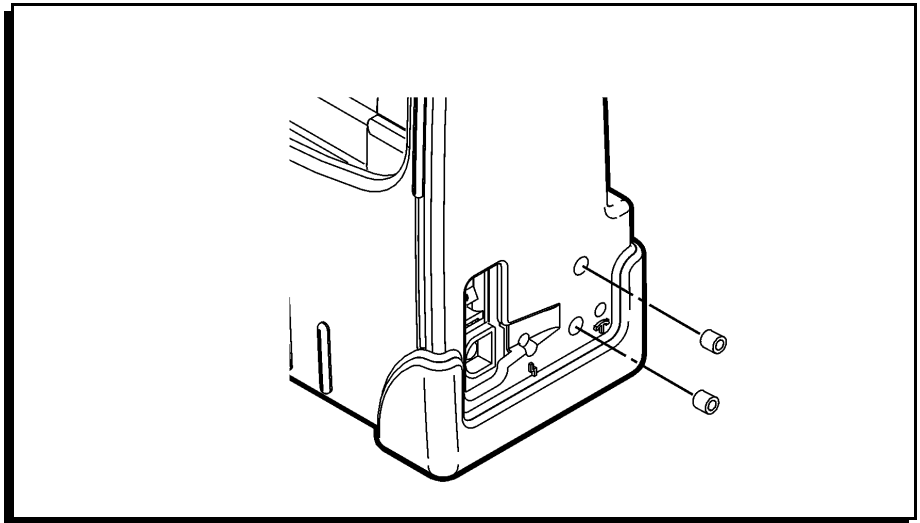
3. Fit the cable into the groove on the inside of the cable cover.

4. Insert the cable connector into printer's serial port and place the cover against the side of the printer.

5. Insert the screws.

NOTE Use the long screws with the boot or the shorter screws without the boot.
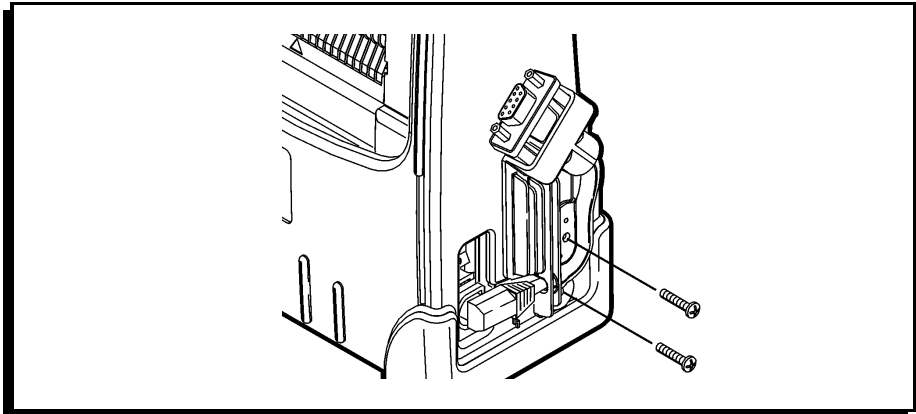
Removing the Cable Cover

To remove the cable cover, remove the screws holding the cover in place and pull it away from the side of the printer.

Chapter 8. *Specifications*

Specifications ────────────────────────────────

Height:	8.7 inches (221 mm)
Width:	8.1 inches (206 mm)
Depth:	2.8 inches (71 mm)
Weight:	4 lbs. (1.8 kg.)
Storage Limits:	15°F to 120°F (-9°C to 49°C)
Operating Limits Thermal Transfer:	40°F to 95°F (4°C to 35°C)
Thermal Direct:	40°F to 110°F (4°C to 43°C)
Optional AC Power Supply:	110/220 VAC, 50-60 Hz
Battery Power:	13.2 volt NiCd
Battery Chargers:	8-hour "trickle" charger Optional 1-hour "fast" charger
Printing:	Thermal direct Thermal transfer
Supply Types:	Thermal transfer and thermal direct labels.
Memory:	1024K of RAM 512K of ROM

Supply Sizes

The printer lets you print supplies 2.0 (51 mm) inches wide and up to 6.0 inches (152 mm) long.

The standard stocked supply lengths include:

1.0 inch (25 mm)

2.0 inch (51 mm)

4.0 inch (102 mm)

6.0 inch (152 mm)

Accessories and Options

✦ Cables (to various host devices)

✦ Battery/8-hour "Trickle" Charger

✦ Battery/1-hour "Fast" Charger

✦ 4-Station "Gang" Charger

✦ AC Adapter

✦ Shoulder Harness/Belt

✦ Rain Cover

✦ Vehicle Mount and Powered Vehicle Mount

✦ Optional Fonts (CG Triumvirate and CG Triumvirate Bold)

✦ Programmer's Kit (contains Programmer's Manual, sample formats, PC cable, Communications Manual, and terminal instructions for various data collection devices)

For more information about these products, call your Sales Representative.

Cable Pin Outs

The following table describes the cable pin outs for the printer connection. The printer uses a male 8-pin mini-DIN connector.

Pin	Description	Direction
1	CTS	Input
2	RTS	Output
3	TXD	Output
4	GND	-
5	RXD	Input
6	DTR	Output
7	DSR	Input
8	DTR or +5V	Output

Glossary

Continuous mode   Print mode in which a format and data with a specific quantity are sent to the printer to be printed in one continuous strip.

download (send)   Transmission of data from the host to your printer.

format   Online data packet that contains the specific label design for printing data. The format is a template the host may download together with a print job, or as a separate packet.

host   Any mainframe, minicomputer, data collect terminal or personal computer.

LED   Light on the printer used to indicate printer conditions and problems.

print job   Online data packet that contains the actual data printed on a label or tag. The host may download the print job together with the format, or as a separate packet. The print job is also called a "batch."

non-peel mode   Feed mode in which the printer prints and dispenses labels without peeling them from the backing paper.

On-demand mode   Print mode in which the printer prints and dispenses one label at a time.

peel mode   Feed mode in which the printer prints and dispenses one peeled label at a time.

online	Direct communication between a computer and the printer.
supplies	labels used for printing.
System Administrator	Person responsible for creating and downloading data streams.
trigger	Button used to feed and print labels, clear errors, and run diagnostics.

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