QUICK REFERENCE

This *Quick Reference* contains supply loading and general care and maintenance procedures for the Monarch® 9860™ printer. For more detailed information, refer to the *Operator's Handbook* available on our Web site (www.monarch.com).

Note: Information in this document supercedes information in previous versions. Check our Web site for the latest documentation and release information.

Connecting the Cables

The power supply automatically switches between 115V or 230V. There are no operator settings required.

1. Plug the power cable into the socket. Plug the other end of the cable into a grounded electrical outlet.

2. Connect the communication cable into the appropriate port. Secure the cable with the connecting screws (serial) or spring clips (parallel).
If you are communicating with the host through the serial port, make sure the printer's communication values match those at the host. The factory default values are 9600 Baud, 8 bit data frame, 1 stop bit, no parity, and DTR flow control. Set the communication values on the printer to match those at the host.

The printer also has a USB (Universal Serial Bus) version 2.0 communications port, which is compatible with version 1.1. Drivers are available on our Web site for a variety of operating systems. These drivers provide a Virtual Communications Port (VCP), which looks like a normal serial port (for example, COM1-4).
After installing the drivers, change the communications port to the one allocated by the VCP driver.

Parallel Port

USB Port

Serial Port
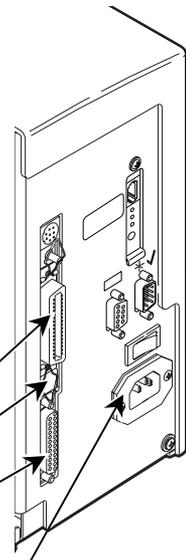
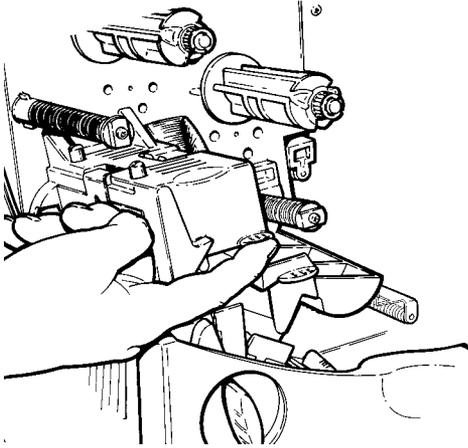**3.** Turn on the printer. Press (I) to turn on and (O) to turn off the printer.

**Power Cable Goes Here**

AVERY DENNISON

Loading Tags or Labels

1. Open the cover.
2. Unlock the printhead by turning the retaining latch.
3. Lift printhead assembly using the printhead tab until the assembly locks into place.

4. Place the roll of supply on the supply holder. For tags, make sure the supply unrolls from the bottom, because tag rolls are wound face in. For labels, the supply unrolls from the top or the bottom. **Do not pick up the printer by the supply holder.**
5. Adjust the supply holder guides so the sides barely touch the roll. Make sure the supply roll turns freely.
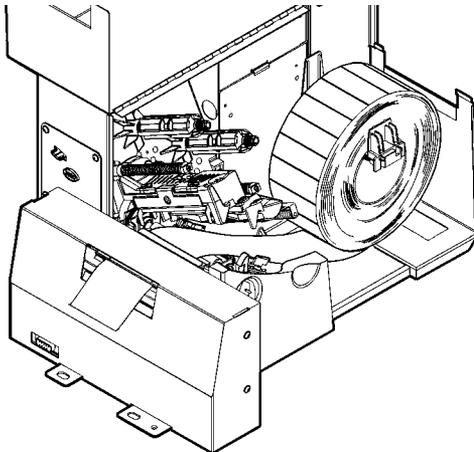
6. Push down on the supply lever to unlock the supply guides.

7. Lay the supply into the feed path. Tuck the supply under the nibs and in between the die cut sensor. **Do not feed supply between the supply roller and deflector.**

8. For tags or labels, feed the supply between the upper and lower knife guides with at least 0.5 inches of supply through the knife.

Die Cut Sensor

Nibs

Supply Lever
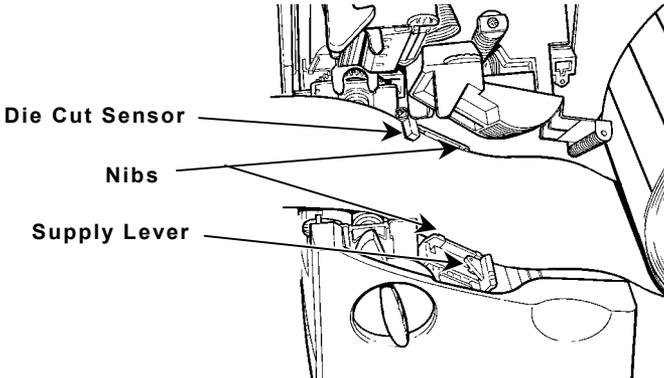
For labels, your System Administrator should use cut mode 5 to cut in strips. Refer to the *Packet Reference Manual* for more information. There may be one or two blank labels left between the printhead and knife after the last batch.

9. Adjust the supply guides so they touch the supply. Push up on the supply lever to lock the supply guides into place.

10. Hold the printhead assembly by the printhead tab while pressing down on the printhead release.
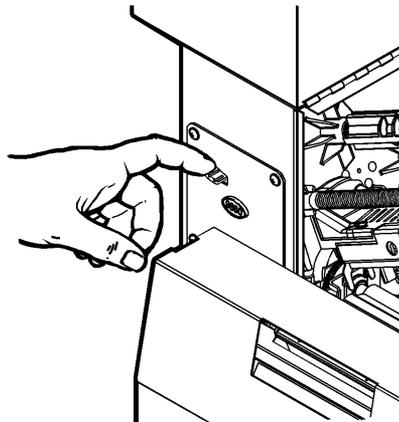
11. Close the printhead by pressing down on the thumb well until you hear it click into place.

12. Close the cover.

13. On the keyboard, press **Feed** (⬤) to position the supply under the printhead and through the knife.
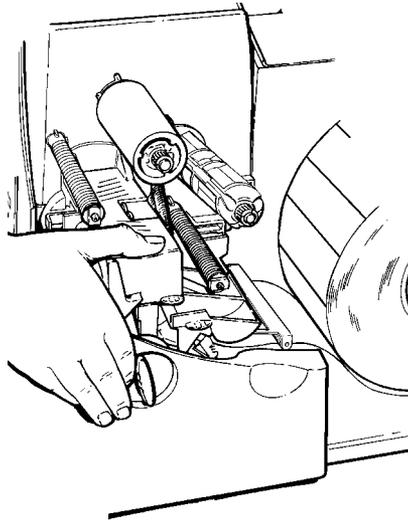
Adjusting the Wide/Narrow Knobs

You may need to adjust the two wide/narrow knobs according to the width of your supply. For supply that is more than two inches, adjust the knobs to the wide setting. For supply that is two inches or less, adjust the knobs to the narrow setting.

You must adjust both of the knobs to the same position.

If you experience ribbon smudging in cold, dry environments, adjust the wide/narrow knobs to the wide setting.

For wide supplies, push down and turn the wide/narrow knobs clockwise with a screwdriver.
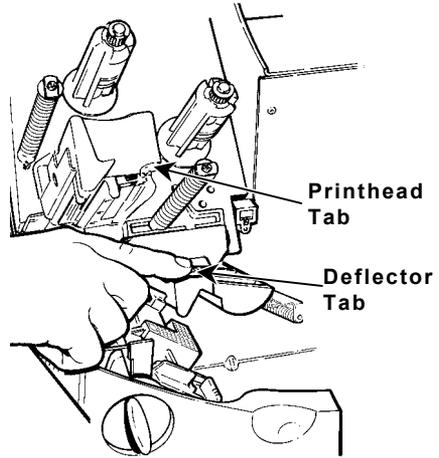
For narrow supplies, turn the wide/narrow knobs counter-clockwise with a screwdriver until it pops back up.

The adjustment is shown in the wide position.

4
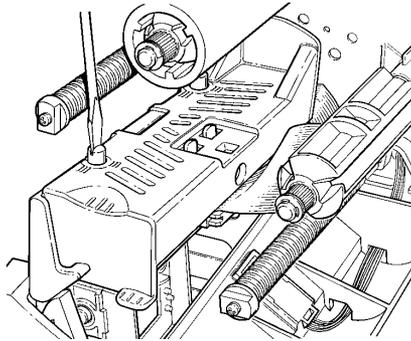
Loading Ribbon

1. Open the cover.

2. Unlock the printhead by turning the retaining latch.

3. Lift printhead assembly using the printhead tab until the assembly locks into place.

4. Push the deflector tab down.

5. Slide the extra ribbon core on the take-up reel as far as it will go with the "This End Out" writing facing out. Use your empty ribbon core as the take-up core. The take-up core only fits on the take-up reel one way.

6. Remove the new ribbon from the package. Do not wrinkle or crush the new ribbon.

7. Slide the ribbon onto the back reel as far as it will go. The ribbon roll only fits on the reel one way. Carefully unwind a few inches of ribbon from the bottom of roll.
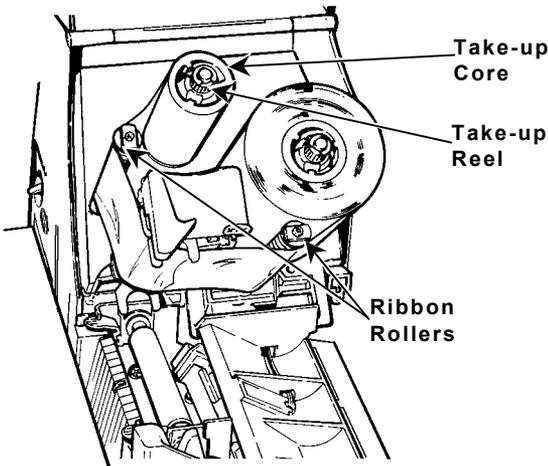
Note: Make sure the "Monarch This End Out" writing is facing out. The ribbon roll only fits on the reel one way.

8. Carefully feed the ribbon under both ribbon rollers and printhead.

9. Align the ribbon and make sure it is straight and centered throughout the path.

10. Tape the ribbon to the take-up core. **Do not** tape the ribbon to the take-up reel.

11. Rotate the take-up core until the leader is past the printhead.

12. Remove any slack in the ribbon by turning the take-up reel clockwise.

13. Hold the printhead assembly by the printhead tab while pressing down on the printhead release.

14. Close the printhead by pressing down on the thumb well until you hear it click into place. Close the cover.

Printing

Before you print, make sure the printer is connected and ready to receive data.

1. Turn on the printer. The printer is ready to receive and print batches when you see "PRINT MODE   Ready" on the keyboard.

2. Download a format and a batch. Refer to the optional *Packet Reference Manual* for information on downloading print jobs.

3. The printer prints the format.

4. Remove the printed supply. If the printer will be unused for extended periods of time, we recommend leaving the printhead unlatched.

Clearing Jams

When you are printing and a jam occurs, an error appears on the keyboard.

1. Turn off the printer and open the cover and printhead assembly.

2. If necessary, remove the supply roll and ribbon.

3. Remove the jammed supply and reload the supply roll.

4. Close the printhead assembly and turn on the printer.

5. On the keyboard, press **Feed** (●) to position the supply under the printhead.

Knife Maintenance

The knife alerts you when it requires maintenance. When the knife reaches three million cuts and the printer is turned on, the keyboard briefly displays

> Service Knife Soon

Each time you turn on the printer, this message appears and then disappears. Call Service to schedule an appointment for knife maintenance.

If you ignore this message, the printer eventually displays "Knife Jam" and the knife stops working. You must press **Escape** (●) to clear the error and the knife may cut a few more tags before it stops working.

Cleaning

You must clean the printhead as described below to maintain printhead life.

CAUTION: Do not use sharp objects to clean the printhead or touch the printhead. This may damage the printhead and require a service charge.

The rate and frequency at which you print determines how often you must clean the printer. You may need to clean the printhead, sensor, and platen roller:

♦ if there is any adhesive build-up in the supply path.

♦ after printing approximately 3 rolls of thermal transfer/thermal direct supplies or after each ribbon.

♦ daily if your printer is in an excessively dirty, hot, or humid environment.

♦ if you frequently receive supply error codes or when you see voids or streaking in the print as shown.

Voids

Streaks

1. Turn off the printer and open the cover and printhead assembly.

2. Remove the label roll and ribbon (when cleaning the printhead).

3. Clean the platen roller when you see significant adhesive build-up or a label is wrapped around the platen roller. Use a dry, soft-bristle brush, such as a toothbrush, to clean either the standard (black) or linerless (red/orange textured) platen roller.

If the brush does not remove all the adhesive

♦ use isopropyl alcohol ONLY on the standard (black) platen roller.
   Moisten a cotton swab with isopropyl alcohol and run the cotton swab across the platen roller. Turn the platen roller with your finger to make sure the platen roller is clean all the way around.

   After cleaning, feed several inches of supply through without printing to remove any remaining isopropyl alcohol.

♦ call Service to clean the linerless (red/orange textured) platen roller.

Note: Do **not** use alcohol or solvents on linerless (red/orange textured) platen rollers.

4. Rub the cotton swab moistened with isopropyl alcohol across the peel bar and remove any build-up.

5. Moisten another cotton swab with isopropyl alcohol. Rub the cotton swab across the printhead and remove any build-up. You may need to use a printhead CLEAN-STRIP if the printhead is extremely dirty or you see streaks on the supply.
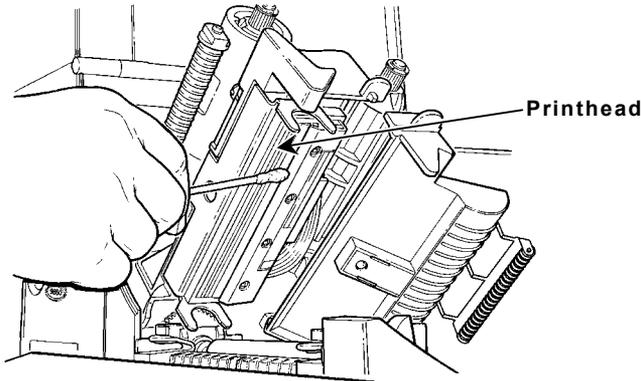
Printhead

6. Rub the cotton swab across the supply sensor and die cut sensor and remove any build-up.

Die Cut Sensor

Supply Sensor
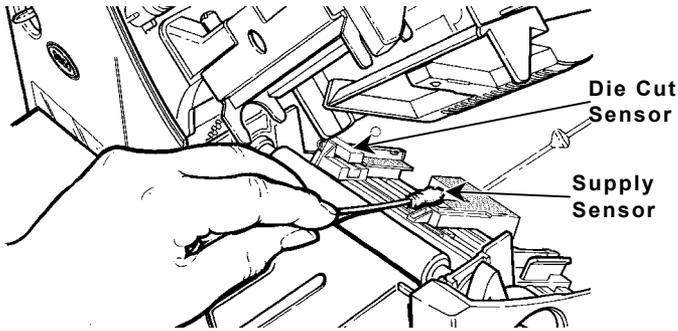
7. Clean the build-up in the supply path.

8. Let the printer dry before you reload supplies.

9. Close the cover and printhead assembly.

10. Turn on the printer. On the keyboard, press **Feed** (●) to position the supply under the printhead and through the knife. Resend your format, batch, and check digit packets.

Troubleshooting

This section provides solutions to minor printing problems. For more detailed information, refer to the *Operator's Handbook* available on our Web site.

Problem	Action
Error message appears during startup	Turn off the printer, wait fifteen seconds and then turn on the printer. Call Technical Support if the error message reappears.
Does not print.	Check supply and ribbon. Send a corrected format and batch packet.
Does not feed.	Set wide/narrow knobs correctly.
Partially printed data.	Clean the printhead. Send a corrected format packet.
Printing shadows or smears.	Clean the printhead, change supply, and check the ribbon.

Problem	Action
Light Printing. -or- Heavy Printing.	Clean the printhead, change supply, adjust the print contrast. Check the wide/narrow knobs and check the ribbon.
Voids in printing.	Clean the printhead, change the supply type, and check the ribbon.
Serial bar codes do not scan.	Leave printhead unlatched when not in use, use a print speed of 2.5 IPS, and adjust the print contrast.
Backing paper is wrapped around platen or peel roller.	Carefully remove the backing paper. Make sure the backing paper tears at the saw-toothed tear edge when using backfeed and peel mode.
Blank labels print or 750 series errors.	Clean the supply sensors.

Common Errors

Error	Description/Action
002	Name must be 1 to 8 characters inside quotes.
005	Supply width is invalid.
018	Code page selection defined in the field is invalid.
025	Data length is too long.
101	Format referenced by batch not in memory.
400	Invalid character following **{**.
403	Field separator was not found.
409	Printer memory is full. Delete unnecessary formats or graphics from memory.
410	Parity mismatch.
411	Framing error (baud rate mismatch).
412	Flow control mismatch.
413	Online receive buffer is full. Check for a flow control problem.
611	Font, bar code, or density in the batch does not fit the format.

612	The data in this line of the batch is either missing or does not match the format.
613	Reference point off supply.
614	Portion of field off supply or there may be an invalid character in the packet.
703	The printer sensed a calibration of different-sized black marks. Make sure the correct supply type is loaded.
704	Printer has not sensed a supply mark when expected or is out of supplies. Press **Escape** (●) to continue printing. Change supply.
751	Printer did not sense a black mark when expected. Press **Escape** (●) and try to continue printing. Change supply.
752	Printer sensed a mark in the wrong place.
753	Printer sensed a mark that is too long.
754	Check for a ribbon jam or remove any slack in the ribbon by turning the take-up reel clockwise. Load a new ribbon.
755	Printhead is open. Close the printhead.
756	Load supplies.
757	Load supplies (supply length mismatch). Press **Feed** (●).
758	Either the supply is not seen, the on-demand sensor is broken, or a label was removed too quickly. Check for a label jam or reload supplies.
763	Waiting to dispense label. Press **Feed** (●).
764	Verifier scan error. Press **Escape** (●) to clear the error and continue printing.
765	The printhead has less than 8 bad dots and can shift bar code fields to avoid bad dots. Press **Escape** (●) to continue printing.
768	Printhead has more than 8 bad dots within the format area or is not connected. Connect printhead.

Tag Cut Dimensions

Widths:	1.0 inches to 4.0 inches (25 mm to 102 mm)
Lengths:	1.5 inches to 16.0 inches (38 mm to 406 mm). This printer allows cutting 1.2 inch (30 mm) feed length tags at 8.0 ips; however, optimal cut quality may not be achieved.
Note:	The maximum cut length using the stacker is 3.66 inches (93 mm)
Batch Separator:	3.66 inches (93 mm)
Cut Angle:	1° (plus or minus) from 90° with respect to the edge
Total Thickness:	9 mils to 12 mils (tags) 5.5 mils to 12 mils (labels)