6

Trouble-Shooting

Your printer is extremely reliable, but occasional problems may occur. You can solve many of these problems yourself, using this chapter. If you encounter problems that you cannot resolve, contact your dealer for assistance.

This chapter is organized as follows:

- Solving problems
- Diagnostic functions
- Returning the printer for maintenance
- Contacting your authorized service provider

Solving problems

The tables in this section describe common printer problems and their solutions. The following types of problems are considered:

- Print quality problems
- Paper handling problems
- Operating problems
- Printer failure

Print Quality Problems and Solutions

Poor print quality or other printing problems are often caused by incorrect printer set-up or incorrect software settings. A gradual decrease in print quality usually indicates a worn ribbon. The following table identifies common print quality problems and suggests solutions.
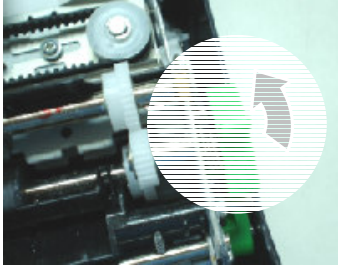
Problem	Solution
Printing is too light or too dark.	Make sure that the ribbon cartridge is properly installed and that the ribbon feeds smoothly.
	Make sure that the Print Gap lever is set for the thickness of your paper. See Chapter 2, Paper Handling Check ribbon wear. Replace the ribbon if necessary.
Smears and stains appear on the page.	Make sure that the Print Gap lever is set for the thickness of your paper. See "Adjusting for Paper Thickness" in Chapter 2, Paper Handling. Check ribbon wear. Replace the ribbon if necessary. Check whether the tip of the print head is dirty. Clean the head with a soft cloth if necessary. The print head should be changed by a technician.
The page is blank	Make sure that the ribbon cartridge is properly installed. See "Installing the Ribbon Cartridge" in the Installation Guide.
Printing is erratic or the wrong characters are printed. Many "?" or unexpected characters are printed.	Make sure that the interface cable is securely connected to both the printer and computer. Make sure that the printer Emulation selected in your software is the same as the Emulation selected on the printer. See "Connecting the Printer to Your Host System," in the Installation Guide.
Printing is vertically misaligned (jagged).	Use the printer's vertical alignment function to check the vertical print alignment. If necessary, adjust the print alignment. See the section, "Checking Vertical Alignment," in this chapter.

Problem	Solution
The top margin is wrong.	The top margin is the sum of the printer's top-of-form setting, the software-specified top margin, and the printer's TOP-MRGN setting. Proceed as follows: • Make sure that the top-of-form setting is correct. The factory default is 0 mm (0 inch). See "Adjusting Top of Form Origin," in Chapter 4, Set-Up Mode. • Check the software-specified top margin. Refer to your software documentation. • Check the printer's TOP-MRGN setting. See "Changing Macro Options," in Chapter 4, Set-Up Mode.
Lines are double spaced instead of single spaced.	Change the LINE MODE setting in the printer Set-Up mode to CR=LF+CR. See "Changing Macro Options," in Chapter 4, Set-Up Mode.
The printer overprints on the same line	Change the LINE MODE setting in the printer Set-Up mode to CR=LF+CR. See "Changing Macro Options," in Chapter 4, Set-Up Mode.
The next print line starts where the previous line ended instead of at the left margin.	Change the LINE MODE setting in the printer Set-Up mode to LF=LF+CR. See the section, "Changing Macro Options," in Chapter 4, Set-Up Mode.
The printer overprints on the same line while the next print line starts where the previous line ended instead of at the left margin.	Change the LINE MODE setting in the printer Set-Up mode to LFCR=LF+CR. See the section, "Changing Macro Options," in Chapter 4, Set-Up Mode.

Paper Handling Problems and Solutions

The following table describes common paper handling problems and suggests solutions. See Chapter 2, "Paper Handling," for detailed procedures on loading and using paper.

Problem	Solution
Paper cannot be loaded or fed.	Make sure that the Print Gap select lever located on the top left of the printer is set correctly. Move the lever to the rear for continuous forms or to the front for single sheets.
	Make sure that the paper covers the paper-out sensor, (i.e., the left paper edge is within 52 mm for single sheets or 41 mm for continuous forms from the left edge of the platen.) This problem cannot occur if you use the forms tractor unit or insert a single sheet with its right edge in contact with the right paper guide.
Paper jams while loading.	Turn off the printer and remove the jammed paper. Remove any obstructions from the paper path.
	Make sure that the Print Gap lever is set for the thickness of your paper. See "Adjusting for Paper Thickness" in Chapter 2, Paper Handling.
	Make sure that the paper is not folded, creased, or torn.
	Make sure that the left and right tractors are set so that the continuous forms are stretched taut. See "Using Continuous Forms," in Chapter 2, Paper Handling.
Paper jams while printing.	Turn off the printer and remove the jammed paper. Remove any obstructions from the paper path.
	Make sure that the Print Gap lever is set for the thickness of your paper. See the table, "Adjusting for Paper Thickness," in Chapter 2, Paper Handling.
	For continuous forms, make sure that the incoming and outgoing paper stacks are correctly placed. Paper should feed straight. See "Positioning the Paper Stack," in Chapter 2, Paper Handling.
Paper slips off the forms tractors or the perforated holes of the paper tear during printing.	Make sure that the forms tractors are positioned correctly for the width of your paper and that the perforated holes of the paper fit directly over the tractor pins. See "Using Continuous Forms," in Chapter 2, Paper Handling.

Operating Problems and Solutions

The following table identifies common operating problems and suggests solutions. If you cannot resolve a problem, contact your dealer.

Problem	Solution
The power does not turn on.	Make sure that the "**I**" on the printer power switch is depressed.
	Make sure that the power cord is securely connected to both the printer and the battery. Make sure that the power outlet is functional.
	Turn the power off. Wait a minute and then turn the printer on again. If the printer still has no power, contact your dealer.
The printer is on but it will not print.	Make sure that the Ready indicator is lit. See "Operation of the Control Panel," in Chapter 2, Paper Handling.
	If you use the interface cable make sure it is securely connected to both the printer and the computer. Make sure that the blue tooth is securely set. See "Connecting the Printer to Your Host System," in the Installation Guide.
	If the Fault indicator is lit, load the paper. See Chapter 2, "Paper Handling".
	Run the printer printing test. If the printing test executes normally, the problem is caused by the interface, the computer, incorrect printer settings, or incorrect software settings. See "Testing the Printer," in the Installation Guide.
	Make sure that the printer Emulation selected in your software is the same as the Emulation selected on the printer. See "Connecting the Printer to Your Host System," in the Installation Guide.

Printer Failures

A user cannot generally resolve a problem involving defective printer hardware. On detecting a fatal error, the printer will:

- Stop printing
- Beep four times if it is not disabled by the Set-Up mode
- Turn the Ready indicator off

- Blink the Paper Out indicator (with a fault indicator lit indicating the error type).

The following errors cause the printer to turn off the power:
- Print head error
- Space motor error (print head carriage motor)
- Line feed motor error
- +34 V overvoltage error

No error condition is displayed if any of these errors occurs.
Turn the printer power switch off and back on, then rerun the same job to check if the error was transient. If the error recurs, contact your dealer.

Diagnostic Functions

The printer diagnostic functions are print-test and hex-dump.
- Print-test tells you whether the printer hardware is functioning correctly. It prints the print-test pattern. If the printer hardware is functional, any problems you are having are probably caused by incorrect printer settings, incorrect software settings, the interface, or the computer.
- Hex-dump allows you to determine whether the computer is sending the correct commands to the printer, and whether the printer is executing the commands correctly. This function is useful to programmers or others who understand how to interpret hex dumps.

For details on using these functions, all of which are available in the printer Set-Up mode, see "Using the Diagnostic Functions," in Chapter 4, Set-Up Mode.

Besides the above functions, the serial interface loopback test and the parallel interface loopback test are provided in the printer Set-Up mode. These tests are for service engineers.

Checking Vertical Alignment

In bidirectional printing, characters printed from left to right tend to misalign with characters printed from right to left as shown below:

```
This example shows how printing looks
 when characters are vertically
misaligned.  Note that the left
 margin is not straight.
```

The vertical alignment function corrects the vertical character displacement that sometimes occurs with bidirectional printing and results in a poor appearance especially in printing tables. This function is defined as one of the power-on initiated test functions. If you notice misaligned printing, start this function to check and correct the vertical print alignment.

Make sure that continuous forms paper or single sheet paper is loaded in the printer. If possible, use forms at least 216 mm (8.5 inches) wide. Then proceed as follows:

1. Start the vertical alignment test.

Turn the printer on while pressing the READY and LOAD buttons until the printer beeps. The printer prints the help menu and then starts printing rows of parallel bars at Letter quality speed.

Note:	Do not press any buttons alone or in combination except for pressing the READY and LOAD buttons alone when turning the printer on, to avoid initiating unexpected tests not permitted for the user.

2. Adjust the vertical print alignment at Letter quality speed.

Examine the parallel bars. If the bars are aligned (not jagged), go to step 3. If the bars are offset, repeatedly press the PREVIOUS button or the NEXT button until the bars are aligned.

```
Letter quality
|||||||||||||||
|||||||||||||||
|||||||||||||||
|||||||||||||||
|||||||||||||||
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Offset of Bars
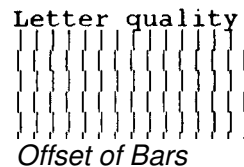
3. Adjust the vertical print alignment at Correspondence and Draft quality speed.

Press the ALT-PREVIOUS button or the ALT-NEXT button to switch Letter quality to Correspondence and Draft quality.

Examine the parallel bars and adjust the vertical print alignment as described in step 2.

```
*** Vertical alignment adjusting ***

Buttons        Action
<  →     >     Shift backward print position to Right
<  ←     >     Shift backward print position to Left
<  ↓     >     Change to next speed
<  ↑     >     Change to previous speed
<Exit/Quit>    Save and exit to normal mode
```


Vertical Alignment

4. Exit the vertical alignment function.

Press the SETUP/EXIT button to save the new vertical alignment settings and exit the vertical alignment function.

Note:	To exit the vertical alignment function without saving changes, turn the printer off.