FUJITSU DL7400

24-wire dot matrix printers

FUJITSU

USER'S MANUAL

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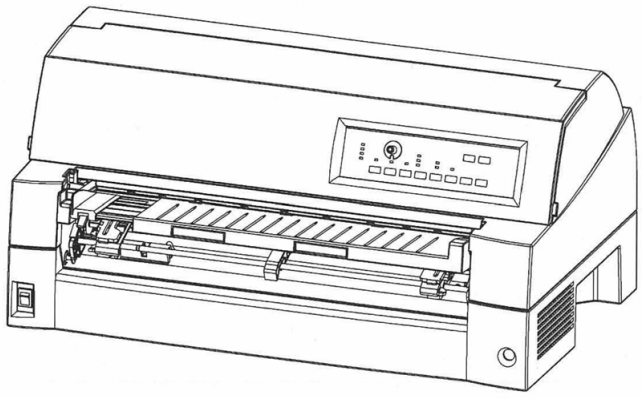
FUJITSU DL7400
DOT MATRIX PRINTER
USER'S MANUAL



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Federal Communications Commission
Radio Frequency Interference Statement
for United States Users

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15B of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measure:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC warning: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTES

1. Testing of this equipment was performed on model number M33324A.
2. The use of a nonshielded interface cable with the referenced device is prohibited. The length of the parallel interface cable must be 3 meters (10 feet) or less. The length of the optional serial interface cable must be 15 meters (50 feet) or less.
3. The length of the power cord must be 3 meters (9.8 feet) or less.

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- M33324B

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Every effort has been made to ensure that the information included here is complete and accurate at the time of publication; however, Fujitsu Isotec Limited cannot be held responsible for errors and omissions.

Printer model specifications differ with the power supply input voltage (100-120 or 220-240 VAC).

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ABOUT THIS MANUAL

Thank you for buying the Fujitsu DL7400 dot matrix printer. You can expect years of reliable service with very little maintenance. This manual explains how to use your printer to full advantage. It is written for both new and experienced printer users.

This manual describes how to install, set up, and use your printer and printer options. It also explains how to keep the printer in good working condition and what to do should something go wrong. Detailed procedures are provided for first-time users. Experienced users can skip some of the details, using the table of contents and chapter introductions to locate information.

This manual has several appendixes, a glossary, and an index. Appendix A lists supplies and additional documentation and information available from your dealer or authorized Fujitsu representative. Fujitsu offices are listed at the end of the manual.

PRINTER MODELS AND OPTIONS

This manual covers model DL7400, a 136-column printer. Each model has a 100-120 VAC or 220-240 VAC power supply. A serial interface is a factory option. A LAN card, a user add-on option, can be installed only on printer models with the Centronics parallel+USB interfaces. You must specify these when purchasing the printer.

Other options include a cut sheet feeder can be added by yourself after purchasing the printer.

DL7400

- Basic specifications
  - Print line at 10 cpi: 136 columns (DL7400)
- Interface: Centronics parallel
  - Centronics parallel + RS-232C
  - Centronics parallel + USB + LAN (LAN:user option)
- Alternative specification
  - Power supply: 100–120 VAC or 220–240 VAC
- Factory option
  - RS-232C serial interface (for Centronics parallel model only. It must be installed by a field engineer.)
- User add-on option
  - LAN card
  - Cut sheet feeder
  - Tractor unit
  - LARGE PAPER TABLE
  - LARGE STACKER

cpi: characters per inch

ORGANIZATION

This manual is organized as follows:

Quick Reference summarizes everyday printer operations. After you become familiar with the printer, use this section as a memory aid.

Chapter 1, Introduction, introduces the printer and identifies key features and options that enhance the printer's capabilities.

Chapter 2, Setting Up, gives step-by-step procedures for setting up the printer for immediate use and identifies the main parts of the printer. If this is your first printer, you should read the entire chapter before attempting to use the printer.

Chapter 3, Paper Handling, explains how to load and use paper with your printer.

Chapter 4, Printing, covers basic printing operations. This chapter describes everyday operations from the printer's control panel, such as loading paper and selecting print features, in detail. After you become more familiar with the printer, use **Quick Reference** at the beginning of the manual to refresh your memory as needed.

Chapter 5, Using Setup Mode, describes how to change the printer's optional settings, such as print features, hardware options, and top-of-form. Most settings only affect print features such as the typestyle and page format. Note that certain settings directly affect hardware and software compatibility. Refer to this chapter as indicated in Chapter 2 or as required.

Chapter 6, Maintenance, explains basic maintenance procedures for this printer.

Chapter 7, Trouble-Shooting, describes problem-solving techniques. Before you contact your dealer for help, check the list of problems and solutions provided in this chapter.

Chapter 8, Installing Options, describes the options available for the printer and explains how to install them.

At the end of this manual, you will find several appendixes, a glossary, and an index. Appendix A gives order numbers for printer supplies, options, and publications. Other appendixes provide additional technical information about the printer.

CONVENTIONS

Special information, such as warnings, cautions, and notes, are indicated as follows:

WARNING

A WARNING indicates that personal injury may result if you do not follow a procedure correctly.

CAUTION

A CAUTION indicates that damage to the printer may result if you do not follow a procedure correctly.

NOTE

A NOTE provides "how-to" tips or suggestions to help you perform a procedure correctly. NOTEs are particularly useful for first-time users.

For Experienced Users:

If you are familiar with this printer or with dot matrix printers in general, this information will help you use the manual effectively.

- Warning symbols

  Various graphic symbols are used in this manual. They serve as signs to help users of this product use the product safely and correctly as well as prevent damage and personal injury to the users or bystanders. The following tables show and explain each symbol. Be sure that you understand the meaning of each symbol before reading the manual.

⚠ WARNING	⚠ CAUTION
A WARNING indicates that death or serious personal injury may result if you do not follow a procedure correctly.	A CAUTION indicates that personal injury or property damage may result if you do not follow a procedure correctly.

Examples and explanations of graphic symbols	
	△ indicates a warning or caution item. By itself, the image in this symbol suggests the meaning of the warning or caution (the example on the left is a caution of possible electric shock).
	⃠ indicates a prohibited action. The image in or beside this symbol expresses the prohibited action (the example on the left indicates that disassembly is prohibited).
	● indicates a direction that must be observed. The image in this symbol shows the direction (the example on the left shows the direction in which a power plug is disconnected from an outlet).
Caution: Hot	This symbol and accompanying statement indicate a risk of injury from a hot object.
Caution: Flammable	This symbol and accompanying statement indicate a risk of fire.
Do not touch	This symbol and accompanying statement indicate a risk of injury from touching part of the equipment.
Do not disassemble	This symbol and accompanying statement indicate a risk of injury, such as from electric shock, caused by disassembling the equipment.
General prohibited action	This symbol and accompanying statement indicate a general prohibited action.
General caution	This symbol and accompanying statement indicate a general caution.

Notes on Safety

- WARNING

⚠ WARNING

Do not place a container containing water, such as a vase, potted plant, and drinking glass, or a metal object on or near the printer.

Otherwise, electric shock or fire may result.

Do not place the printer in a humid or dusty area, in an area with explosive fumes, an area with poor ventilation or close to a fire.

Otherwise, electric shock or fire may result.

Use only one of the power cords included with this product, for this product. Do not use any other power cord for this product.

Otherwise, electric shock or fire may result.

Do not use this product in an area exposed to a high level of moisture, such as a bathroom and shower room.

Otherwise, electric shock or fire may result.

⚠ WARNING

When mounting or removing an optional device or component, turn off the power to the printer and personal computer and disconnect their power plugs from the outlets before performing the work.

Otherwise, electric shock may result.

Connect only Fujitsu-recommended optional devices and components.

Otherwise, electric shock, fire, or failure may result.

⚠ CAUTION

Do not block openings in the printer (e.g., ventilation openings).

If ventilation openings are blocked, heat accumulates inside the printer, possibly resulting in a fire.

Do not place a heavy object on the printer. Also, do not subject the printer to shocks.

Otherwise, the printer may become unbalanced, causing it to fall, and possibly resulting in personal injury.

Do not place the printer in an area exposed to strong vibration or an unstable area such as on a slope.

Otherwise, the printer may fall or topple, possibly resulting in personal injury.

Do not leave the printer in an area exposed to direct sunlight for a long time, such as inside a car under the sun or any other area subjected to high temperatures.

Otherwise, the printer surface heats up, possibly melting covers or resulting in other deformities, or the inside of the printer may become extremely hot, possibly resulting in fire.

Before moving the printer, be sure to disconnect the power plug from the outlet and disconnect all connected cables from the printer.

Otherwise, the power cord may be damaged, possibly resulting in electric shock or fire, or the printer may fall or topple, possibly resulting in personal injury.

Before connecting or disconnecting a printer cable, be sure to turn off the power to the printer and personal computer.

Performing that and related work without the power turned off may result in a personal computer or printer failure.

- Notes about the printer in operation

WARNING

If the printer is making a strange noise, which indicates a problem, discontinue printer operation. Request your printer dealer to fix the problem.

Continued operation of the printer without repairs may result in electric shock or fire.

Do not use a power source whose voltage is other than that indicated. Also, an excessive number of plugged-in power cords must not be connected to a single outlet.

Otherwise, electric shock or fire may result.

Do not spill any liquid, such as water, on the printer.

Otherwise, electric shock or fire may result.

Do not damage or modify the power cord.

The power cord may be damaged by placing a heavy object on it, stretching it excessively, forcibly bending it, twisting it, or heating it, and this may result in electric shock or fire.

Do not use the power cord if it or the power plug is damaged or the plug does not fit securely in the outlet receptacle.

Using the power cord in that condition may result in electric shock or fire.

Do not insert the power cord into an outlet or turn on the power to the printer when any of its covers has been removed.

Otherwise, electric shock or fire may result.

Prevent foreign objects, such as metal shards and inflammable materials, from being inserted or dropped into any openings in the printer (e.g., ventilation openings).

Otherwise, electric shock or fire may result.

Do not disconnect the power plug from the outlet while the power to the printer is turned on.

Otherwise, the plug becomes deformed, possibly resulting in fire.

Do not remove the main printer cover or the cover for the cable connectors except as necessary. To check and repair internal components, request your printer dealer to do so.

Some internal components use high voltage, and touching them may result in electric shock.

Do not modify the printer by yourself.

Otherwise, electric shock or fire may result.

Do not connect or disconnect the power plug with wet hands.

Otherwise, electric shock may result.

⚠ WARNING

If excessive heat, smoke, a strange odor, or a strange noise is coming the printer or any other abnormality is observed, immediately turn off the power to the printer by using the power switch, and be sure to disconnect the power plug from the outlet.

Then, after verifying the end of the abnormality (e.g., no more smoke is coming from the printer), request your printer dealer to make repairs. Do not repair the printer by yourself as doing so is dangerous.

Continued use of the printer when it is operating abnormally may result in electric shock or fire.

If a foreign object (e.g., water or other liquid, metal shard) has entered the printer, immediately turn off the power to the printer by using the power switch, and disconnect the power plug from the outlet. Then, contact your printer dealer.

Continued use of the printer in that condition may result in electric shock or fire. Customers who use the printer near children should take especial care regarding this point.

If the printer is dropped or a cover is damaged, turn off the power to the printer by using the power switch, and disconnect the power plug from the outlet. Then, contact your printer dealer.

Continued use of printer in that condition may result in electric shock or fire.

Before performing cleaning, maintenance, or troubleshooting work on the printer, switch off the power switch, and be sure to disconnect the power plug from the outlet.

Performing that work on the printer without the power turned off may result in burns or electric shock.

Dust accumulates on or near the metal parts of the power plug, so wipe away that dust with a dry cloth.

Continued use of printer in that condition may result in fire.

Do not drop or strike the printer, such as by hitting it against something.

Otherwise, a failure may result.

⚠ CAUTION

Insert the power plug completely into an outlet so that it is securely connected.

Otherwise, electric shock or fire may result.

Exercise caution to keep loose clothing, hair, neckties, etc. away from paper feed- or ejection openings, and tractors while the printer is operating.

Otherwise, personal injury may result.

When disconnecting the power plug from the outlet, pull it out while grasping the plug, not the cord.

If you pull it out while grasping the cord, the insulation may be damaged or the cable core may be exposed or damaged, possibly resulting in electric shock or fire.

Do not cover or wrap the printer with a cloth or anything else while it is operating.

Otherwise, heat accumulates, possibly resulting in fire.

Do not use the power cord with it bunched together.

Otherwise, heat accumulates, possibly resulting in fire.

If the printer is not to be used for a long time, disconnect the power plug from the outlet for safety reasons.

Otherwise, electric shock or fire may result.

If a lightning storm is in nearby, disconnect the power plug from the outlet.

Leaving the plug connected to the outlet may result in damage to the printer or other property damage.

The print head and internal frames become extremely hot during printer operation and remain so immediately afterwards. Do not touch these parts until sufficient time has passed to allow them to cool.

Otherwise, burns or personal injury may result.

CAUTION

Do not touch the paper feed- or ejection openings while the printer is operating.

Otherwise, personal injury may be result.

Do not touch the printer cable connectors or the metal part of the print head.

Otherwise, personal injury or a printer failure may result.

Do not touch the print head while it is moving.

Otherwise, burns or personal injury may result.

Note that continuous forms that are fed in the reverse direction continuously may come off the paper feed tractors.

Operate the printer with the paper thickness lever set to the appropriate paper thickness.

Use only an original ribbon cassette that is specified as suitable by Fujitsu.

Textile fibers accumulate on components inside the printer and parts of the roller, so clean these parts regularly.

Do not turn the ribbon feed knob in the reverse direction.

Otherwise, the ribbon may become jammed and stuck.

If printing is started with a slack ribbon, the ribbon may become tangled or the ribbon feed mechanism may become locked.

The print head is extremely hot immediately after printing. When replacing the ribbon, verify that the print head is sufficiently cool before setting the print head to the ribbon replacement position.

TABLE OF CONTENTS

QUICK REFERENCE QR-1

CHAPTER 1 INTRODUCTION 1-1

FEATURES 1-1
MODELS OPTIONS 1-3

CHAPTER 2 SETTING UP 2-1

SELECTING A GOOD LOCATION 2-1
UNPACKING THE PRINTER 2-2
Checking Options and Supplies 2-4
ASSEMBLING THE PRINTER 2-5
Setting the paper table 2-5
Handling the paper table 2-6
Installing the Ribbon cartridge 2-8
Mounting and removing the tractor unit 2-11
GETTING ACQUAINTED WITH YOUR PRINTER 2-14
CONNECTING THE POWER CORD 2-15
TESTING THE PRINTER (OFFLINE) 2-16
Loading Paper for the Self-Test 2-16
Printing the Self-Test 2-17
CONNECTING THE PRINTER TO YOUR COMPUTER 2-21
Selecting a Parallel Interface Cable 2-21
Selecting a Serial Interface Cable 2-21
Selecting a USB Cable 2-22
Selecting a LAN cable 2-22
Connecting the Interface Cable 2-22
SELECTING AN EMULATION 2-23
PRINTING A SAMPLE PAGE (ONLINE) 2-27
INSTALLING THE PRINTER DRIVER 2-28

CHAPTER 3 PAPER HANDLING 3-1

SELECTING PAPER 3-1
OVERVIEW OF PAPER OPERATIONS 3-2
SELECTING PAPER PATH 3-5
Paper Paths and Feed Directions 3-5
ADJUSTING FOR PAPER THICKNESS 3-8
USING SINGLE SHEETS 3-9
Loading a Single Sheet of Paper 3-9
Loading Paper from the Cut Sheet Feeder (Option) 3-12
Ejecting Single Sheets 3-14
USING CONTINUOUS FORMS 3-14
Positioning the Paper Stack 3-15
Loading Continuous Forms (Front Feed) 3-16
Loading Continuous Forms (Rear Feed) 3-19
Unloading Continuous Forms 3-19
Tearing Off Continuous Forms 3-20
FEEDING AND POSITIONING PAPER 3-22

Line Feed/Form Feed 3-22
Micro Feed 3-22
Load Position Adjust 3-22
TIPS ON PAPER HANDLING 3-23
General Tips 3-23
Multipart Forms 3-23
Envelopes 3-23
Labels 3-23

CHAPTER 4 PRINTING 4-1
MULTIPART FORMS (HI IMPACT MODE) 4-1
SELECTING PRINT FEATURES 4-2
Using Commercial Software 4-3
Using the Control Panel 4-3
Selecting MENU1 or MENU2 4-4
STARTING OR STOPPING PRINTING 4-6
Starting Printing 4-6
Stopping Printing 4-6
Resuming from a Paper-Out 4-6
Printing the remaining lines on a page 4-6
Continuing printing after supplying paper 4-7
Resuming after an Area Over warning 4-7
REMOVING PRINTED PAGES 4-8
Removing Single Sheets 4-8
Removing Continuous Forms 4-8
CLEARING THE PRINT BUFFER 4-8

CHAPTER 5 USING SETUP MODE 5-1
HOW TO USE THIS CHAPTER 5-1
ENTERING SETUP MODE 5-2
OVERVIEW OF SETUP MODE 5-4
Setup Mode Example 5-5
Points to Remember 5-8
PRINTING A LIST OF SELECTED OPTIONS 5-8
DECIDING WHICH OPTIONS TO CHANGE 5-11
MENU1 AND MENU2 ITEMS AND OPTIONS 5-13
Resetting MENU1 and MENU2 5-27
CHANGING HARDWARE OPTIONS 5-27
CHANGING PRINT POSITION ADJUSTMENT OPTIONS 5-32
CHANGING CONFIGURATION OPTIONS 5-37
HEAD GAP ADJUSTMENT ITEMS AND OPTIONS 5-48
EXITING AND SAVING 5-49
Procedure 5-49
RESETTING DEFAULTS 5-50
Resetting Power-On Defaults 5-50
Resetting Factory Defaults 5-50
Resetting Factory Defaults in MENU1 and MENU2 5-50
USING THE DIAGNOSTIC FUNCTIONS 5-51
Printing the Self-Test 5-51
Procedure 5-52
Procedure 5-53
Checking Vertical Print Alignment (V-ALMNT) 5-55

Procedure 5-55
SETUP MODE REFERENCE 5-57
Differences in IBM Proprinter XL24E Emulation 5-60
Differences in Epson ESC/P2 Emulation 5-60
ONLINE SETUP MODE 5-61

CHAPTER 6 MAINTENANCE 6-1
CLEANING 6-1
Cleaning and Vacuuming the Printer 6-1
Cleaning the Platen 6-2
REPLACING THE RIBBON 6-3
REPLACING THE PRINT HEAD 6-6
Opening and closing the control panel 6-8
Removing the stacker unit 6-8
Mounting the stacker unit 6-9
OPTIONS 6-9

CHAPTER 7 TROUBLE-SHOOTING 7-1
SOLVING PROBLEMS 7-1
Print Quality Problems 7-1
Paper Handling Problems 7-4
Operating Problems 7-6
Printer Failures 7-7
Alarm display function 7-8
Responses to alarm occurrences 7-9
DIAGNOSTIC FUNCTIONS 7-9
GETTING HELP 7-10

CHAPTER 8 INSTALLING OPTIONS 8-1
INSTALLING THE CUT SHEET FEEDER 8-1
Installing on the front side of the printer 8-2
Installing on the rear side of the printer 8-4
Removing the Cut Sheet Feeder 8-7
INSTALLING THE TRACTOR UNIT 8-8
INSTALLING THE Large stacker 8-9
INSTALLING THE Large Paper Table 8-11

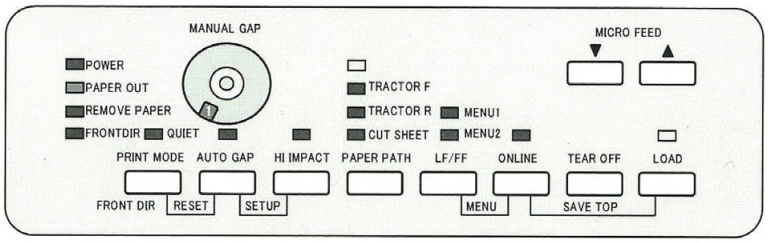
APPENDIX A SUPPLIES AND OPTIONS A-1
SUPPLIES A-1
OPTIONS A-1

APPENDIX B PRINTER AND PAPER SPECIFICATIONS B-1
PHYSICAL SPECIFICATIONS B-1
FUNCTIONAL SPECIFICATIONS B-2
PERFORMANCE SPECIFICATIONS B-5
PAPER SPECIFICATIONS B-6
Print Area B-6
Paper Thickness B-8

QUICK REFERENCE

Quick Reference is written for experienced users —
users who are familiar with how the printer works,
but who may need to refresh their memory occasionally. *Only the printer's normal (non-setup) mode is covered*. For details on setup mode, see Chapter 5.

Normal mode operation includes everyday operations, such as paper handling and font selection. The printer comes up in normal mode when turned on. To enter setup mode, press the AUTO GAP and HI IMPACT buttons at the same time while the ONLINE indicator is off (not lit).



Control panel

The table on the next page lists normal mode operations with online and offline conditions and gives the required user response.
Operations are listed by functions.

Printer Operations (Normal Mode)

✓: Operation can be performed when the printer is in this state.

— : Operation cannot be performed when the printer is in this state.

N/A: Does not apply.

Operation	Online	Offline	Required Response
Enter normal mode	N/A	N/A	Turn printer on. (Press I on the power switch.)
Place printer offline	✓	—	Press ONLINE.
Place printer online	—	✓	Press ONLINE.
Load paper	✓	✓	Press LOAD.
Line feed (forward)	✓	✓	Press LF/FF within three seconds.
Unload paper to park position (both front and rear-fed continuous forms)	✓	✓	Press LOAD.
Form feed (forward)	✓	✓	Press and hold LF/FF until the operation starts.
Eject single sheets	✓	✓	Press and hold LF/FF until the operation starts.
Tear off forms (continuous forms only)	✓	✓	Press TEAR OFF. Tear off forms, then press any button to retract forms.
Micro feed (backward)	✓	✓	Press MICRO▲.
Micro feed (forward)	✓	✓	Press MICRO▼.
Select a paper feed direction	—	✓	Press FRONT DIR.
Select a print mode	✓	—	Press PRINT MODE.
Set/reset multi copy mode	✓	✓	Press MULTI COPY.
Select a paper input source	✓	✓	Press PAPER PATH.
Select a gap mode	✓	✓	Press AUTO GAP.
Save adjusted load positions	✓	✓	Press ONLINE and LOAD.
Select MENU1 or MENU2	—	✓	Press ONLINE and LF/FF.
Clear print buffer	—	✓	Press FRONT DIR and AUTO GAP.
Reset power-on defaults	✓	✓	Turn printer off, then on.
Start/stop/resume printing	✓	✓	Start: Send print command. Stop/resume: Press ONLINE.
Resume printing after paper	—	✓	Press ONLINE.

Printer Operations (Normal Mode) (Cont.)

✓: Operation can be performed when the printer is in this state.

— : Operation cannot be performed when the printer is in this state.

N/A: Does not apply.

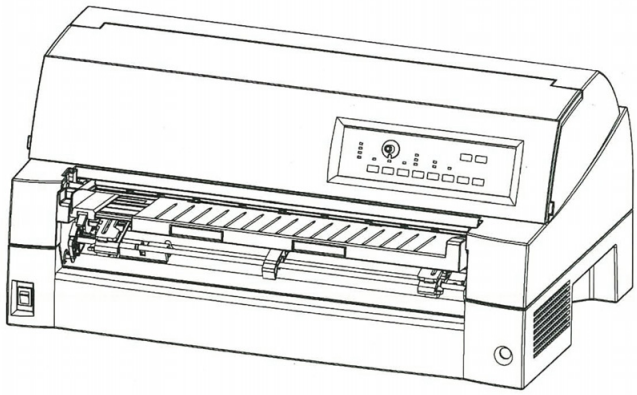
Operation	Online	Offline	Required Response
Enter setup mode	—	✓	Press AUTO GAP and HI IMPACT.
Exit to normal mode Self-test printing	✓	✓	Start:Turn printer off. Press LF/FF while turning printer on. Pause/resume: Press LOAD. Exit: Press ONLINE.
Continuous Line feed (forward)	✓	✓	Press MICRO▲ and LF/FF.
Continuous Line feed (backward)	✓	✓	Press MICRO▼ and LF/FF.
Front CSF BIN1 set	✓	✓	Press MICRO▲ and ONLINE.
Rear CSF BIN1 set	✓	✓	Press MICRO▼ and ONLINE.

1

INTRODUCTION

Congratulations on purchasing this printer. This printer is a compact, versatile, flat paper path printer that offers maximum compatibility with today's software packages and personal computers.

The 24-wire print head provides crisp, clear printing for business, office, and home environments. This printer is also easy to install and use.



DL7400 dot matrix printer (136 columns)

FEATURES

Key printer features, models and options are listed in the next two sections.

- **Software compatibility**. This printer, which operates primarily with the Fujitsu DPL24C PLUS command set, is compatible with the IBM Proprinter XL24E command set and the Epson ESC/P2 command set.
- **Various character sets**. As basic character sets, IBM PC character sets 1 and 2 are available for the Fujitsu DPL24C PLUS command set and the IBM Proprinter XL24E emulation, and the italic character set and graphics character sets 1 and 2 are available for the Epson ESC/P2 emulation. As national character sets, a total of 56 or 58 national character sets (depending on the emulation), including IBM PS/2 character sets, are available.
- **Multiple fonts.** The printer has nineteen resident fonts: Ten bit-map fonts — Courier 10, Pica 10, Prestige Elite 12, Boldface PS, OCR-B 10, OCR-A 10, Correspondence, Compressed, Draft, and High-speed Draft and nine outline fonts — Timeless, Nimbus Sans, and Courier, each in upright, italic, and bold.
- **High-speed printing**. At 10 cpi, print speed ranges from 160 cps for letter quality to 505 cps for draft quality.

- **Large print buffer**. 128K bytes are available in total for storing input data and downloading fonts. A large input data buffer allows you to send files to the printer and return to work in your application. A large download buffer allows you to use custom fonts.
- **136-column print line**. 136-column printers print in landscape mode using legal- or standard-size computer forms.
- **Simple switching of paper types**. The ability to "park" continuous forms makes it easy to switch between continuous forms and single sheets from the control panel. This switching is possible even for an optional cut sheet feeder and second tractor.
- **Dual tractor feeding capability**. The tractor unit is removable and can be converted to front-feed or rear-feed.
- **Multi-path of paper**. The printer has multiple paths to feed paper : For the continuous form front and rear tractor(second tractor is option), For cut sheet loading paper table (front), front csf(option), rear csf(option).Also for cut sheet ejecting front and rear is selectable(front eject paper require removing for next paper loading)
- **Tear-off function**. Available at both the front and the rear of the printer. The tear-off button on the control panel is used.
- **Hight copy capability**
  - Up to eight sheets for front/rear continuous forms and cut sheets fed from front paper table.
  - Up to five sheets for CSF fed
- **Auto paper thickness control**. Features as standard equipment.
- **Auto interface selection**. The printer automatically selects the interface proper to the occasion.

  (This function can't move at single interface models)
- **Paper skew detection**. The printer detects a skew of paper that is manually fed from the paper table and automatically ejects it without printing.
- **Area-over print prevention**. The printer senses and memorizes the left and right edges of paper when loading the paper. If receiving data beyond either edge, the printer ignores it to prevent directly printing on the platen.
- **Maintenance-free**. The printer only requires periodic cleaning and changing of the ribbon cartridge.
- **Power Supply type**; 100-120VAC input
  220-240VAC input
- **Interface type**; Centronics parallel + USB interfaces
  Centronics parallel
  Centronics parallel + RS232C serial interface

MODELS OPTIONS

Printer add-on options are listed below. For details, see Chapter 8.

- **Cut sheet feeder**. The SF940 single-bin feeder is available as an option. Two cut sheet feeders can be installed in front of and behind the printer at the same time. A cut sheet feeder allows single cut sheets and multiple-part cut sheets to be fed automatically.
- **Tractor unit**. A second tractor unit may be bought as an additional option if dual tractor feeding capability is required.
- **LAN card.** A LAN card is available as a printer add-on option. A user installable function, the LAN card can be installed only on printer models with the Centronics parallel + USB interfaces. For details, see Chapter 8.
- **Large paper table.** The large paper table helps to increase operability when large cut sheets are used.

  Also, sheets that are output from the front are easier to keep properly organized.
- **Large stacker.** The large stacker accommodates sheets output from the rear. It is used in continuous printing with a cut sheet feeder.

2

SETTING UP

Your new printer is easy to install and set up. This chapter tells you how to set up the printer and start printing right away. If this is your first printer, you should read the entire chapter before attempting to use the printer.

In this chapter, you will learn how to:

- Unpack, assemble, and select a good location for the printer
- Identify the printer's major parts
- Connect the power and interface cables
- Test the printer before connecting it to your computer
- Install the printer driver
- Select an emulation and print a sample page using your software

If you have a problem while setting up the printer, review the section Solving Problems in Chapter 7. If the problem persists, contact your dealer.

SELECTING A GOOD LOCATION

This printer is suitable for most business, office, and home environments. To obtain peak performance from the printer, select a location that meets the following guidelines:

- ✓ Place the printer on a sturdy, level surface.
- ✓ Place the printer near a well-grounded AC power outlet.
- ✓ Ensure easy access to the front and rear of the printer by leaving several inches of space around the printer. Do not block the air vents on the front, left, and right sides of the printer.
- ✓ Do not place the printer in direct sunlight or near heaters.
- ✓ Make sure that the room is well-ventilated and free from excessive dust.
- ✓ Do not expose the printer to extremes of temperature and humidity.

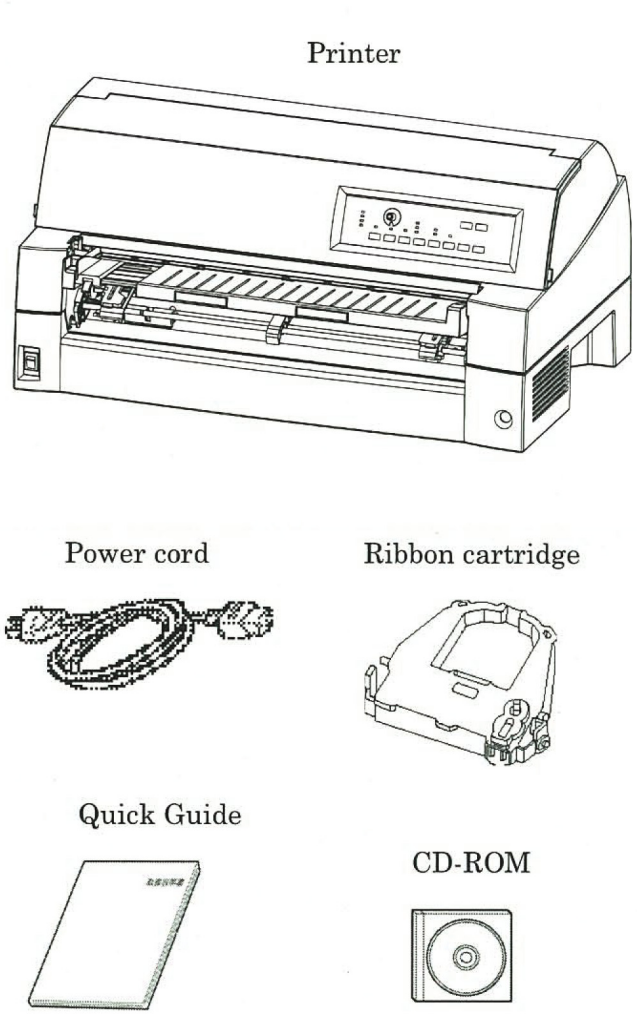
- ✓ Use only the power cord supplied with the printer or recommended by your dealer. Do not use an extension cord.
- ✓ Do not plug the printer into a power outlet that is shared with heavy industrial equipment, such as motors, or appliances, or such as copiers or coffee makers. Such equipment often emits electrical noise or causes power degradation.

UNPACKING THE PRINTER

Unpack the printer as follows:

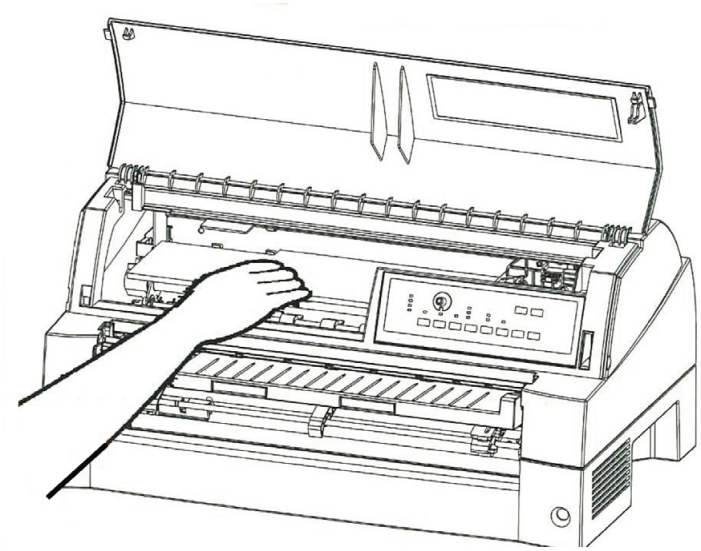
1. Open the carton and remove the printer and its components.

   Make sure that you have all of the items shown below. Note that the power cord supplied depends on the printer model (100-120 or 220-240 VAC power supply).



Checking items received

2. Carefully examine each item for damage. Report any problems to your dealer or shipping agent.
3. Place the printer where you plan to use it.
4. Remove the tapes and cushions securing the printer. Open the front cover and remove the shipping restraint cardboard that holds the print head carriage in place (shown below).



Removing the shipping restraint cardboard

5. Store the original shipping carton and packaging materials for future use. For example, the original packaging is ideal for use when you move or ship your printer to another location.

NOTE

The interface cable is not included with the printer. You must purchase it separately. Connection of the interface cable is described later in this chapter.

Checking Options and Supplies

The following options and supplies, if ordered, are shipped separately:

- LAN card (option)
- Cut sheet feeder (option)
- Tractor unit (option)
- Extra monochrome ribbon cartridges

Make sure that you received all the options you ordered. Installation of options is described in Chapter 8.

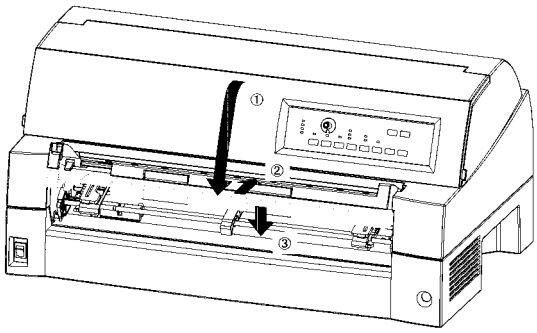
Once you are sure you have everything, you are ready to assemble the printer.

ASSEMBLING THE PRINTER

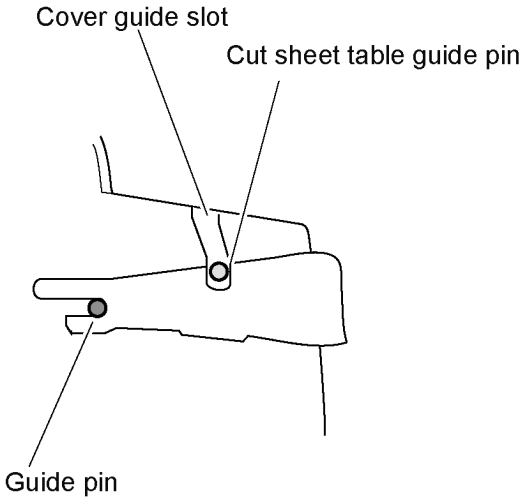
This section explains how to setting the paper table and ribbon cartridge.

Setting the paper table

Turn the paper table (1) as shown in the table below, then push it (2) and set it (3).



The complete setup conditions are shown below. Make sure that the top end of the paper table is engaged with the printer guide pin and the guide pin on the paper table is inserted into the cover groove.



NOTE

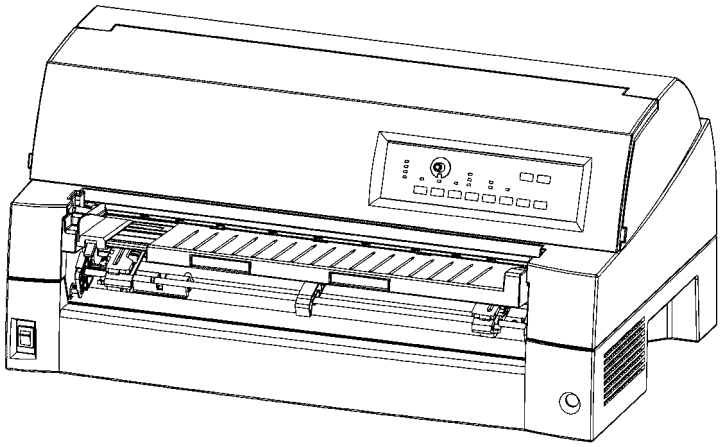
Do not apply unreasonable force while you are setting the paper table. It could cause damage. Also, do not leave the paper table in incomplete setting. Running the printer with the paper table left in incomplete conditions could cause a paper jam.

Handling the paper table

You must open and close the paper table when you feed continuous forms using the front tractor or you attach the cut sheet feeder to the front of the printer.

Normal mode

The following figure shows the paper table in normal mode.

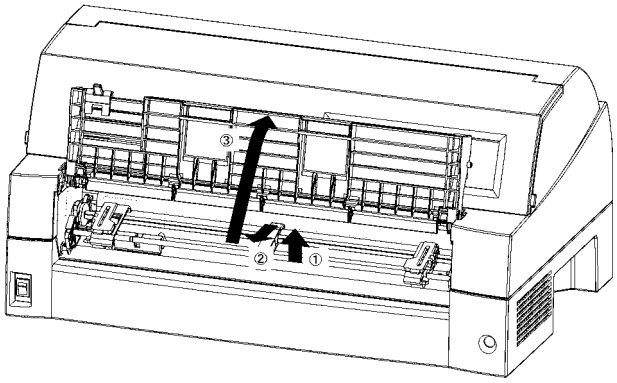


Open mode in which the front tractor is attached or detached or when continuous forms are fed using the front tractor

When you attach the optional cut sheet feeder to the front of the printer, open the paper table and proceed as follows:

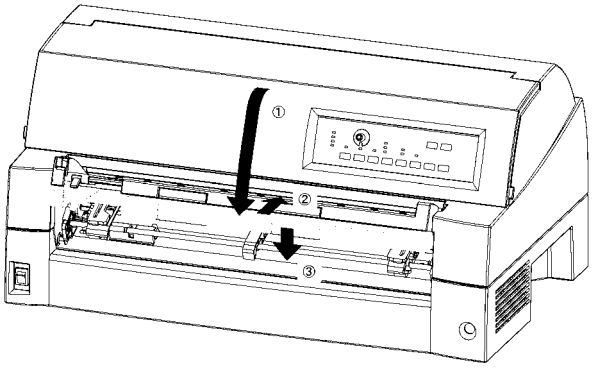
1 Open the paper table.

Slightly raise the front end of the paper table (1), then pull (2) and lift the table (3).



2 Close the paper table.

Lower the paper table as shown in the figure below (1), then push (2) and close (3) the table.



Installing the Ribbon cartridge

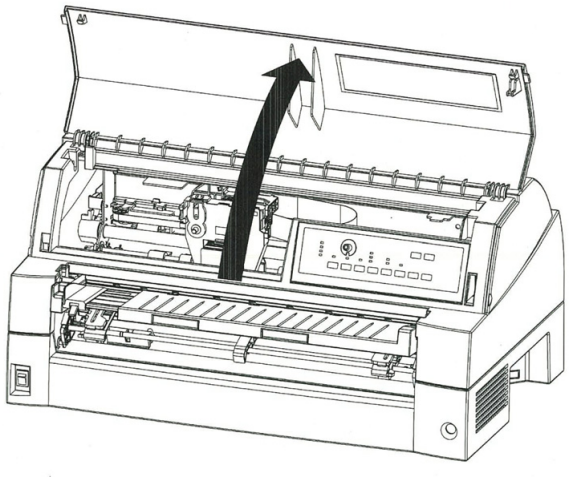
(HOT)	CAUTION <HOT> **The print head and metal frame is hot during printing or immediately after printing. Do not touch them until it cools down.**

1. Prepare the printer to install the ribbon cartridge.
   Make sure that the print head protecting cardboard used for transportation has been removed, then turn on the printer power with the top cover closed. Ensure that the print head moves and stops at the ribbon replacement position.

   NOTE

   If you turn on the printer power with the top cover open, the print head does not move. Turn the printer power with the top cover closed.

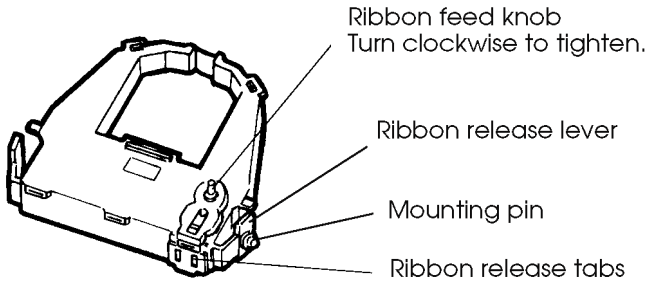
2. Turn off the printer power.
   Make sure that the power switch is set to the "O" side.
3. Open the front cover of the printer. Slide the print head carriage so that its center is at the position for replacing the ribbon cartridge (indicated by the triangle marking on the front of the upper cover).



Preparing the printer to install the ribbon cartridge

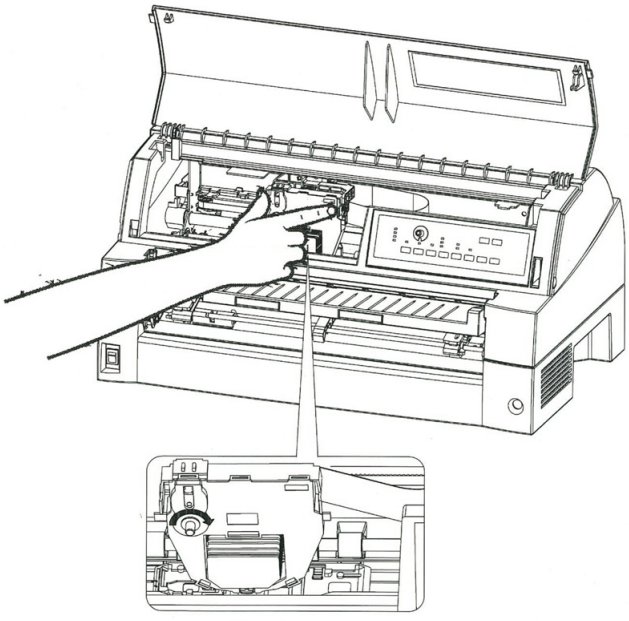
4. Remove the ribbon cartridge from its package. Push in the two ribbon release tabs. The tabs snap into the cartridge and the ribbon feed mechanism engages.

   Turn the ribbon feed knob clockwise to be sure that it feeds properly.



Preparing the ribbon cartridge

5. Locate the two ribbon release levers on either side of the ribbon cartridge. Each ribbon release lever has a mounting pin on the side. Place the mounting pins on the ribbon support bracket of the print head cartridge. Insert the ribbon so that the ribbon falls between the nose of the print head and the plastic print guide.



Installing the ribbon cartridge

6. Press the ribbon release levers inward until the mounting pins snap into the holes of the ribbon support brackets. Gently pull on the cartridge to be sure that the pins are secure in the holes.
7. Turn the ribbon feed knob clockwise to take up any slack in the ribbon.
8. Close the front cover.

NOTE

A Fujitsu ribbon cartridge is recommended. Don't use other cartridges. If other cartridges are used, operating problems or a damage of the print head may be caused.

Selecting the Tractor Unit Position

NOTE

This printer uses a detachable tractor that can be used on either the front or back of the printer. You can attach the tractor to either the front or back of the printer according to your installation or operating conditions. The printer is delivered to you with the tractor attached to the front. You can detach it from the front and then attach it to the back if needed.

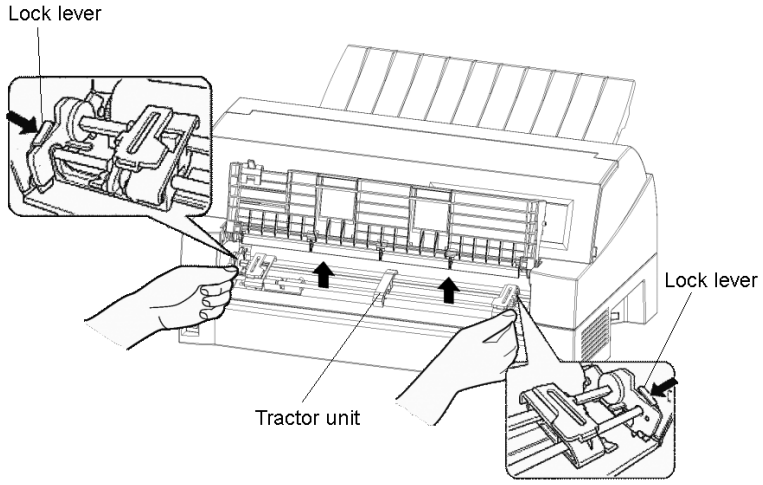
See "SELECTING PAPER PATH" in Chapter 3.

Mounting and removing the tractor unit

Tractor unit at the front

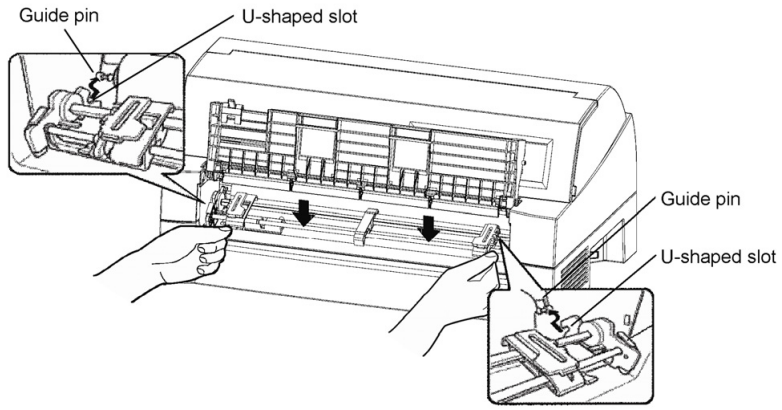
[Removing the tractor unit]

Raise the cut sheet table. While pressing the lock levers of the tractor frames located on both sides of the tractor unit, lift out the tractor unit to remove it.

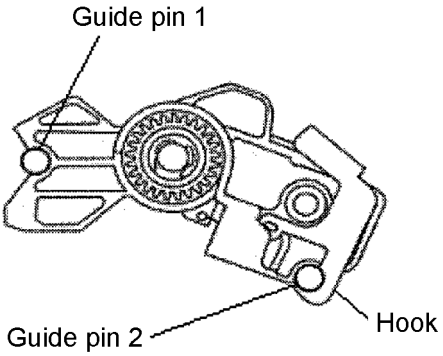


[Mounting the tractor unit]

1) Position the U-shaped slots on both sides of the tractor unit over the guide pins of the printer unit. (To set the tractor unit in position, line it up with the groove of the left guide pin. The right guide pin has no groove).
2) Push down the shaft at the front of the tractor unit until it locks with an audible click. (Do not press the lock levers when pushing down the shaft.)



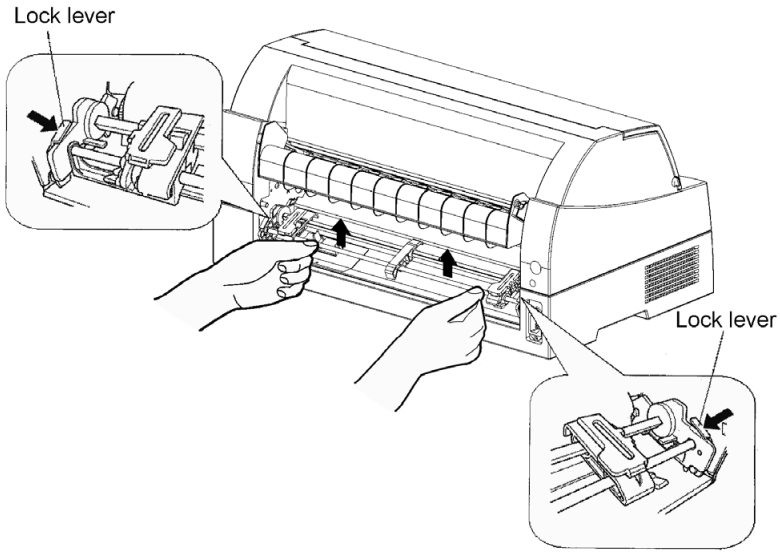
3) Verify that the hooks on both sides of the tractor unit are securely hooked onto guide pin 2 as shown in the following figure.



Tractor unit at the rear

[Removing the tractor unit]

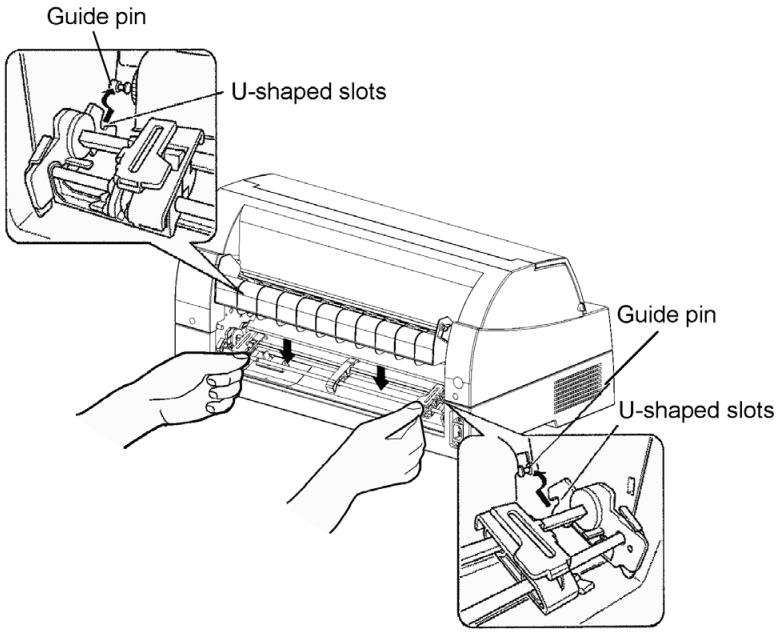
While pressing the lock levers of the tractor frames located on both sides of the tractor unit, lift out the tractor unit to remove it.



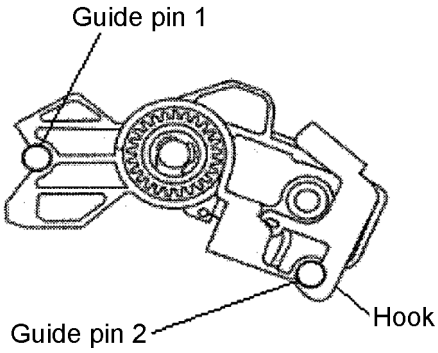
[Mounting the tractor unit]

1) Position the U-shaped slots on both sides of the tractor unit over the guide pins of the printer unit. (To set the tractor unit in position, line it up with the groove of the left guide pin. The right guide pin has no groove).

2) Push down the shaft at the front of the tractor unit until it locks with an audible click. (Do not press the lock levers when pushing down the shaft.)



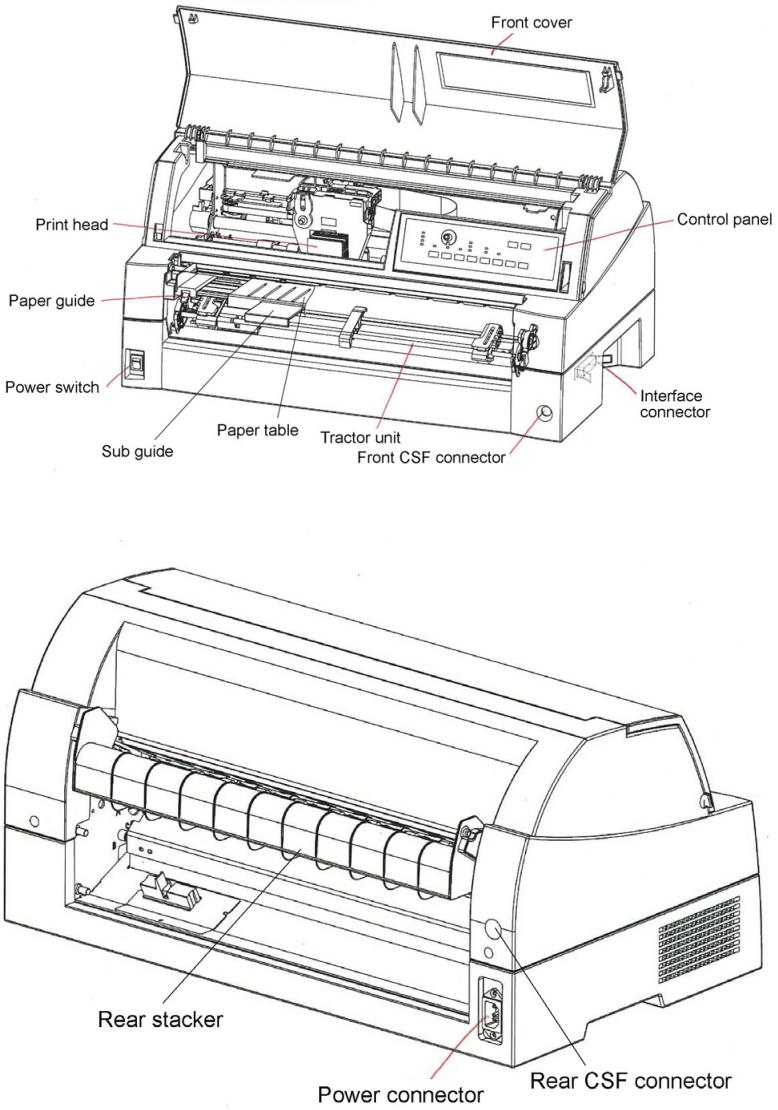
3) Verify that the hooks on both sides of the tractor unit are securely hooked onto guide pin 2 as shown in the following figure.



GETTING ACQUAINTED WITH YOUR PRINTER

Now that your printer is assembled, take a moment to become familiar with its major parts.

Looking at the printer from the front right side and rear left side, you can see the parts of the printer shown in the figure below.



Printer components

The printer control panel has the buttons and indicators used to load and feed paper (see Chapter 3) and select print features (see Chapter 4). The control panel also allows you to change the printer's optional settings (see Chapter 5).

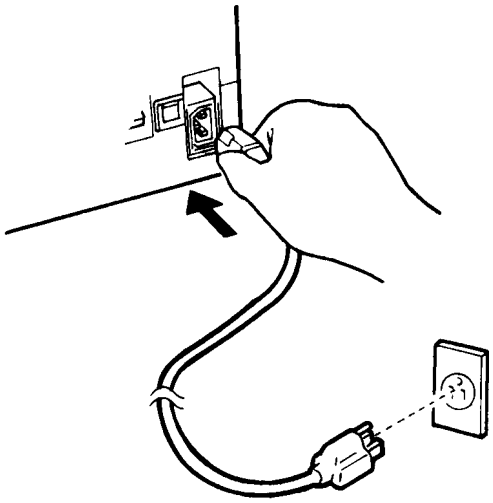
CONNECTING THE POWER CORD

Before you plug in the printer:

- ✓ Make sure that the printer power is switched off. The side marked "O" on the power switch should be depressed.
- ✓ Make sure that the power outlet is properly grounded.
- ✓ Make sure that you use the power cord shipped with the printer. This cord is designed to minimize radio frequency interference.

To plug in the power cord:

1. Plug one end of the power cord into the power connector on the rear of the printer.
2. Plug the other end of the power cord into the power outlet.



Connecting the power cord

3. Make sure that the power cord is securely connected.
4. Turn on the power by pressing the side marked "I" on the power switch. The POWER indicator on the printer control panel will light, the print head will move to its home position within a few seconds, and the ONLINE indicator will light (green).

NOTE

If no forms are loaded, the printer beeps and the red PAPER OUT indicator lights and the ONLINE indicator will not light.

TESTING THE PRINTER (OFFLINE)

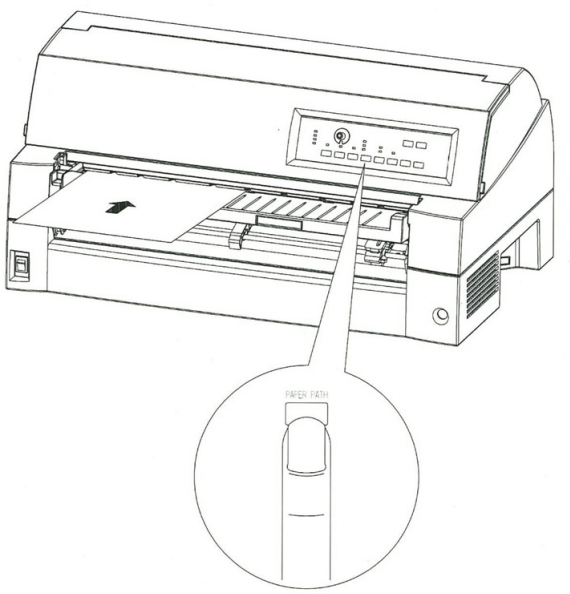
At this point, load paper and run the printer self-test. The self-test checks printer performance and print quality before you connect the printer to the computer. Use either single sheets or continuous forms (see Chapter 3). This section describes the self-test procedure using single sheets.

Loading Paper for the Self-Test

To print the self-test, use paper wider than 215.9 mm (8.5 inches) and set the left paper guide all the way to the right to avoid clipping the test pattern. Standard letter or A4 size paper can be used lengthwise (portrait mode). Pull the subguide out as required to accommodate the paper size.

Before loading paper, make sure that the printer is on. Then, proceed as follows:

1. Press the PAPER PATH button on the control panel to select the cut sheet mode (the CUT SHEET indicator LED lights).



Loading a sheet of paper

2. Insert a sheet of paper (A4 or larger) into the printer, keeping it aligned with the paper guide on the left hand side of the paper table. The sheet will automatically be pulled into the printing start position.

Printing the Self-Test

The printer has a built-in self-test program. The self-test prints the firmware version, the names of the printer's resident emulations, and all of the characters available in the emulations. The self-test prints 80 characters per line.

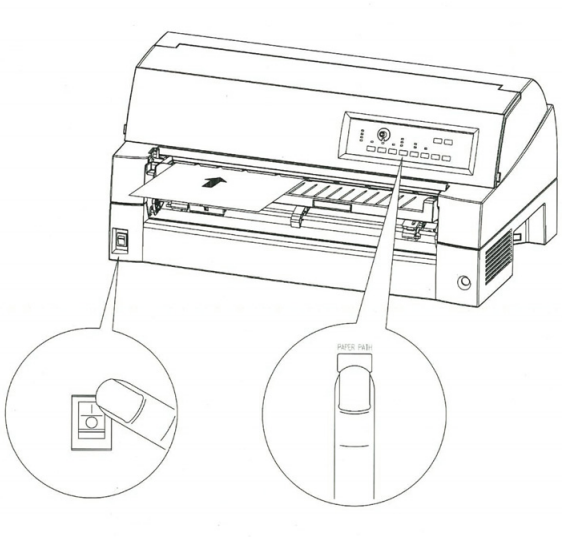
To print a self-test page, make sure that a sheet of paper is loaded.

Then proceed as follows:

1. Turn the printer off.
2. While pressing the LF/FF button, turn the printer back on.

   Keep the LF/FF button pressed until the printer beeps.

   Self-test printing will start.

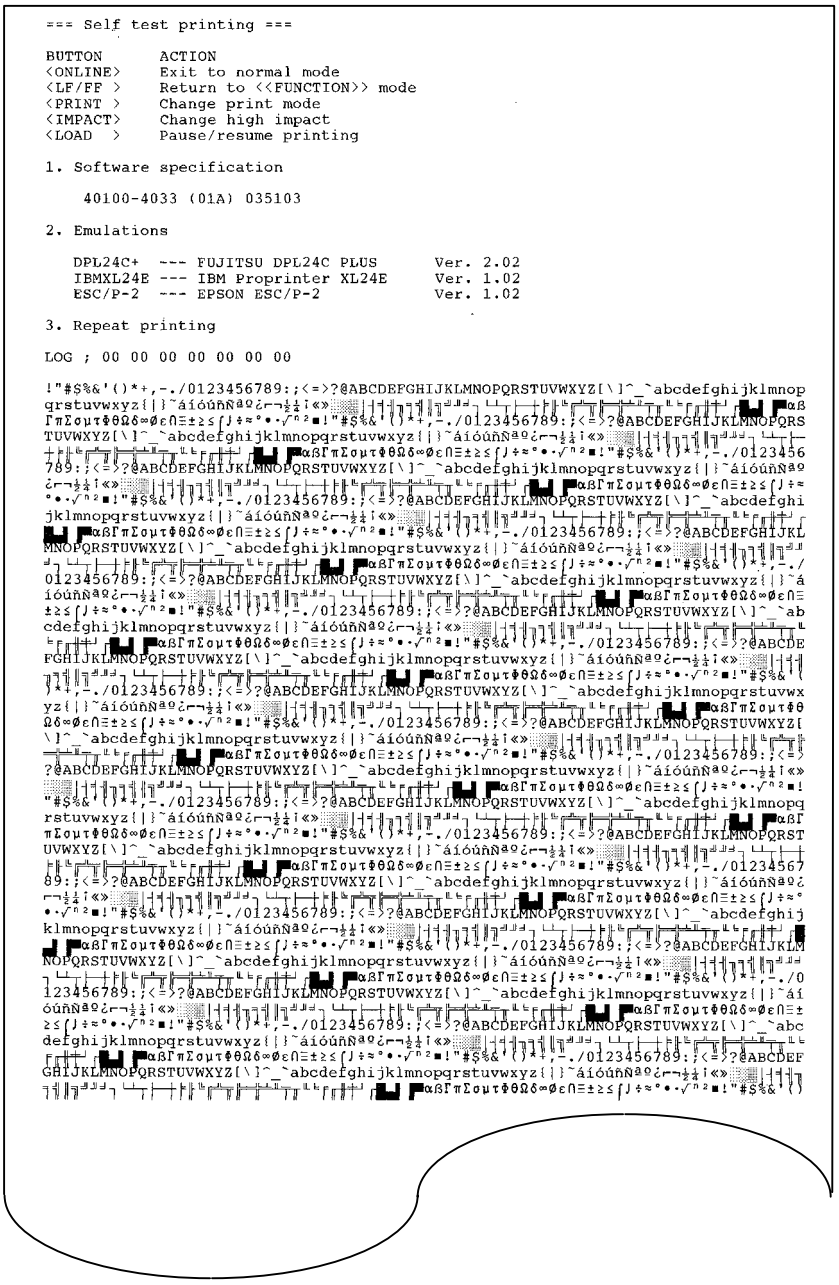


Starting the self-test

3. Allow printing to continue for a dozen or more lines of repeat printing. To exit the self-test mode, press the ONLINE button. Then press the LOAD button to remove the test page.
4. Examine the self-test page. It should look like the sample on the next page.

   Check that printing is uniform and that there are no light, dark, or smudged areas. If the print quality is good, go to step 5. Otherwise, try to correct the problem as follows:

   - Make sure that the ribbon is installed correctly.
   - Load a new sheet of paper.
   - Repeat the self-test procedure.



```
=== Self test printing ===

BUTTON      ACTION
<ONLINE>    Exit to normal mode
<LF/FF >    Return to <<FUNCTION>> mode
<PRINT >    Change print mode
<IMPACT>    Change high impact
<LOAD  >    Pause/resume printing

1. Software specification

    40100-4033 (01A) 035103

2. Emulations

   DPL24C+  --- FUJITSU DPL24C PLUS      Ver. 2.02
   IBMXL24E --- IBM Proprinter XL24E     Ver. 1.02
   ESC/P-2  --- EPSON ESC/P-2            Ver. 1.02

3. Repeat printing

LOG ; 00 00 00 00 00 00 00

!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnop
qrstuvwxyz{|}~áíóúñÑªº¿⌐¬½¼¡«»
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"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopq
rstuvwxyz{|}~áíóúñÑªº¿⌐¬½¼¡«»
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89:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~áíóúñÑªº¿
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•·√ⁿ²■!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghij
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óúñÑªº¿⌐¬½¼¡«»
≥≤∫⌠÷≈°∙·√ⁿ²■!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abc
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GHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~áíóúñÑªº¿⌐¬½¼¡«»
ΓπΣσµτΦΘΩδ∞ØεΩ≡±≥≤∫⌠÷≈°∙·√ⁿ²■!"#$%&'()
```

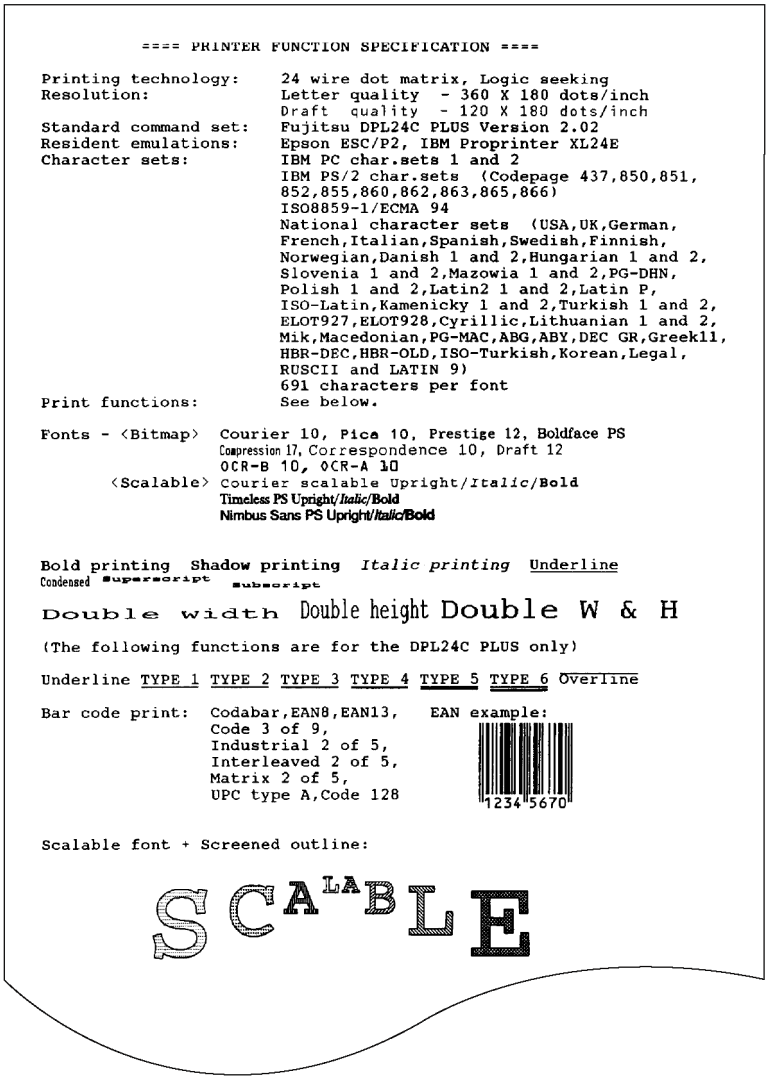
Sample self-test page

5. To exit the self-test mode, press the ONLINE button. The printer will return online.

NOTE

The printer can also print a special "demo pattern" that illustrates some of the printer's capabilities. To print the demo pattern:

1. **Load a sheet of paper (A4 or larger).**
2. **Turn the printer off .**
3. **While pressing the FRONT DIR button, turn the printer back on.**
   The printer will start printing the demo pattern.
4. **The demo pattern stops printing after one page. To pause or restart the demo during printing of a page, press the ONLINE button.**
5. **To exit demo mode, turn the printer off.**



==== PRINTER FUNCTION SPECIFICATION ====

Printing technology: 24 wire dot matrix, Logic seeking
Resolution: Letter quality - 360 X 180 dots/inch
Draft quality - 120 X 180 dots/inch
Standard command set: Fujitsu DPL24C PLUS Version 2.02
Resident emulations: Epson ESC/P2, IBM Proprinter XL24E
Character sets: IBM PC char.sets 1 and 2
IBM PS/2 char.sets (Codepage 437,850,851, 852,855,860,862,863,865,866)
ISO8859-1/ECMA 94
National character sets (USA,UK,German, French,Italian,Spanish,Swedish,Finnish, Norwegian,Danish 1 and 2,Hungarian 1 and 2, Slovenia 1 and 2,Mazowia 1 and 2,PG-DHN, Polish 1 and 2,Latin2 1 and 2,Latin P, ISO-Latin,Kamenicky 1 and 2,Turkish 1 and 2, ELOT927,ELOT928,Cyrillic,Lithuanian 1 and 2, Mik,Macedonian,PG-MAC,ABG,ABY,DEC GR,Greek11, HBR-DEC,HBR-OLD,ISO-Turkish,Korean,Legal, RUSCII and LATIN 9)
691 characters per font
Print functions: See below.

Fonts - <Bitmap> Courier 10, Pica 10, Prestige 12, Boldface PS
Compression 17, Correspondence 10, Draft 12
OCR-B 10, OCR-A 10
<Scalable> Courier scalable Upright/Italic/Bold
Timeless PS Upright/Italic/Bold
Nimbus Sans PS Upright/Italic/Bold

Bold printing Shadow printing Italic printing Underline
Condensed Superscript Subscript
Double width Double height Double W & H

(The following functions are for the DPL24C PLUS only)

Underline TYPE 1 TYPE 2 TYPE 3 TYPE 4 TYPE 5 TYPE 6 Overline

Bar code print: Codabar,EAN8,EAN13, Code 3 of 9, Industrial 2 of 5, Interleaved 2 of 5, Matrix 2 of 5, UPC type A,Code 128
EAN example:
1234 5670

Scalable font + Screened outline:

SCALABLE

Demo pattern