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User guide

LA650+ LA800+ Matrix printer

Mantenimiento Periféricos Informaticos C/Canteras, 15 28860 Paracauellos de Jarama (Madrid) Tel: 00 34 917481604 Web: https://mpi.com.es/

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Introduction

Printer features

Your printer is a high speed and rugged design for easy use and heavy duty operation. It is designed for service-free PC, network and mini system operations.

At top speeds of 1100 and 900 cps the LA800+ and LA650+ keep pace with the bustling, demanding world where printing is time sensitive and critical. Engineered for printing under adverse conditions, these devices produce multi-part invoices, shipping documents or bar code labels at a rate of 40,000 to 50,000 pages per month.

The printer handles up to 7-part forms with no skewing or jamming; it automatically adjusts for different forms thickness. The straight paper path is easy to access, for reliable forms handling.

The LA800+/LA650+ optionally is configured with an optional tractor (front). A straight paper path on the front tractors results in jam-free operation and flawless 24-wire impressions on up to 7-part forms. Both models offer fully automated gap adjustment, paper parking, loading, etc.

With extensive connectivity alternatives and popular emulations, the printer is ideal for a variety of industrial or business applications.

Symbols used

Important information is highlighted in this manual by two symbols.

CAUTION highlights information which must be observed in order to prevent injuries to the user and damage to the printer.

NOTE highlights general or additional information about a specific topic.

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About this manual

The user guide contains a detailed description of the printer, its characteristic features and additional information.

- Chapter 1 *Printer at a glance* lists all the parts of the printer.
- Chapter 2 *Installation* contains start-up instructions and points to note.
- Chapter 3 *Inserting the ribbon cassette* provides step-by-step instructions for changing the ribbon cassette.
- Chapter 4 *Printer drivers* provides step-by-step instructions for installing the printer driver.
- Chapter 5 *The control panel* explains how to control printer operations.
- Chapter 6 *Paper handling* tells you how to set the paper type and how to load, transport and move the paper to the tear-off position.
- Chapter 7 *Settings* tells you how to adjust the basic settings such as font, character density, print head distance, print line height and tear-off position.
- Chapter 8 *The Menu* contains all the information necessary for controlling the printer via the control panel.
- Chapter 9 *Advanced menu* describes the possible test settings and other technical adjustments of the printer.
- Chapter 10 *Troubleshooting* provides instructions for rectifying faults which do not require the intervention of qualified personnel.
- Chapter 11 *Care and maintenance* provides information on the upkeep of the printer.
- Appendix A *Specifications* informs you about the technical specifications of your printer and the paper which should be used.
- Appendix B *Available character sets and fonts* lists the available character sets.
- Appendix C *Emulations* deals with programming via the interface.
- Appendix D *Interfaces* explains the interfaces.
- Appendix E *Options and accessories* contains information about options and accessories you can purchase for your printer.

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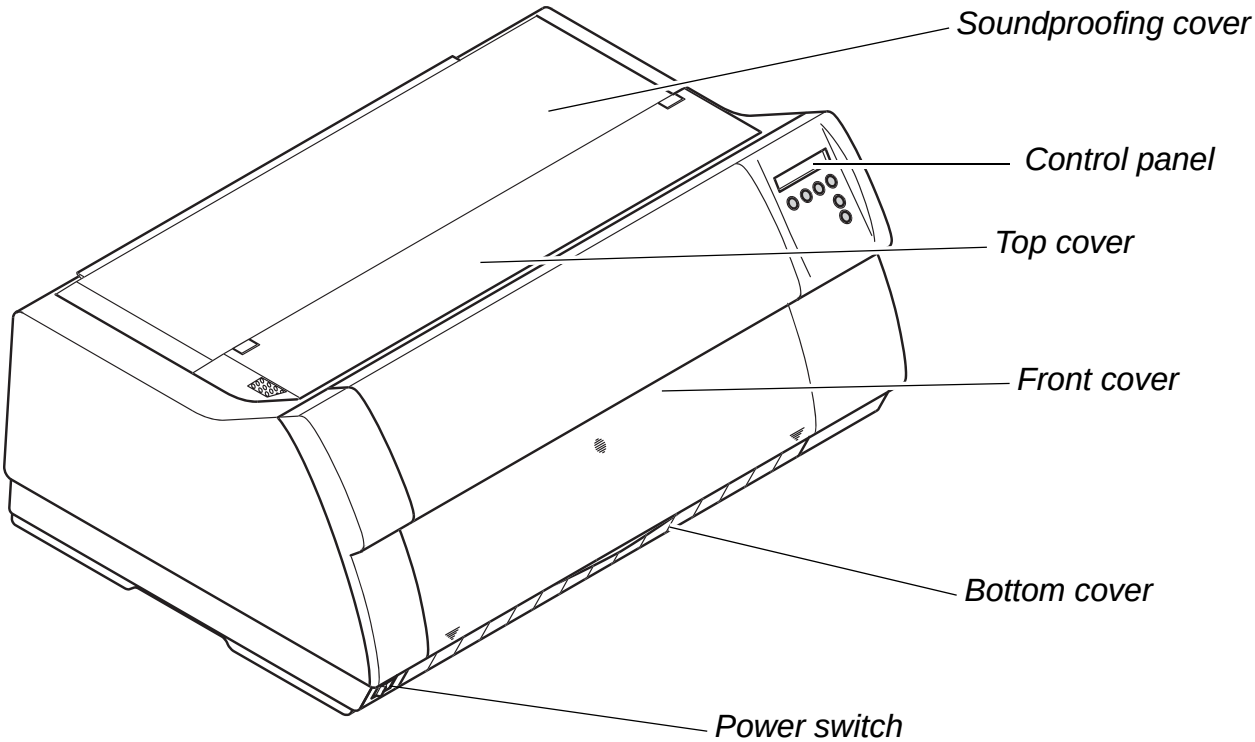
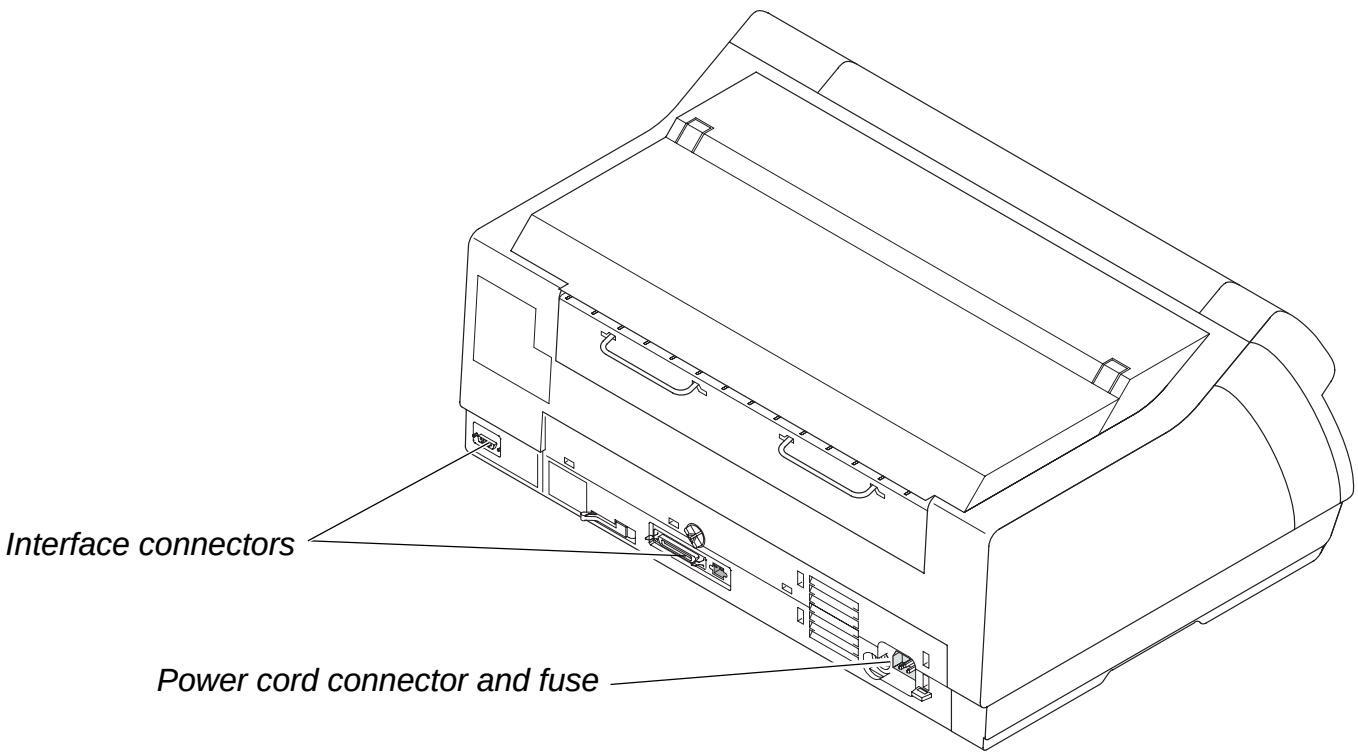
1 Printer at a glance





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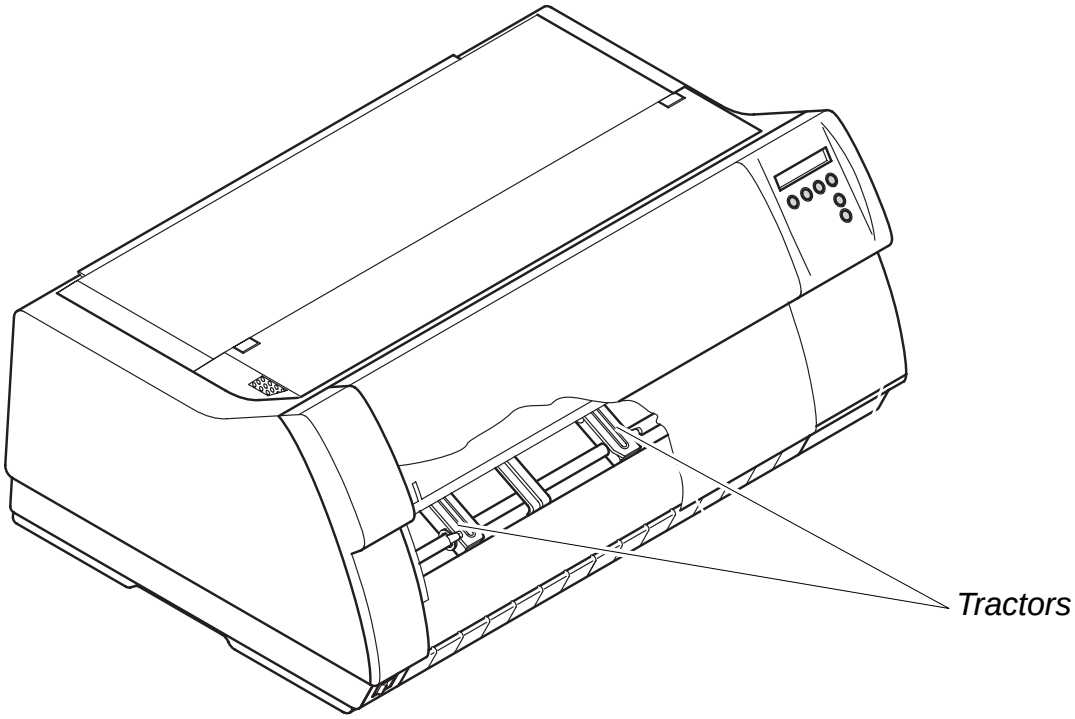
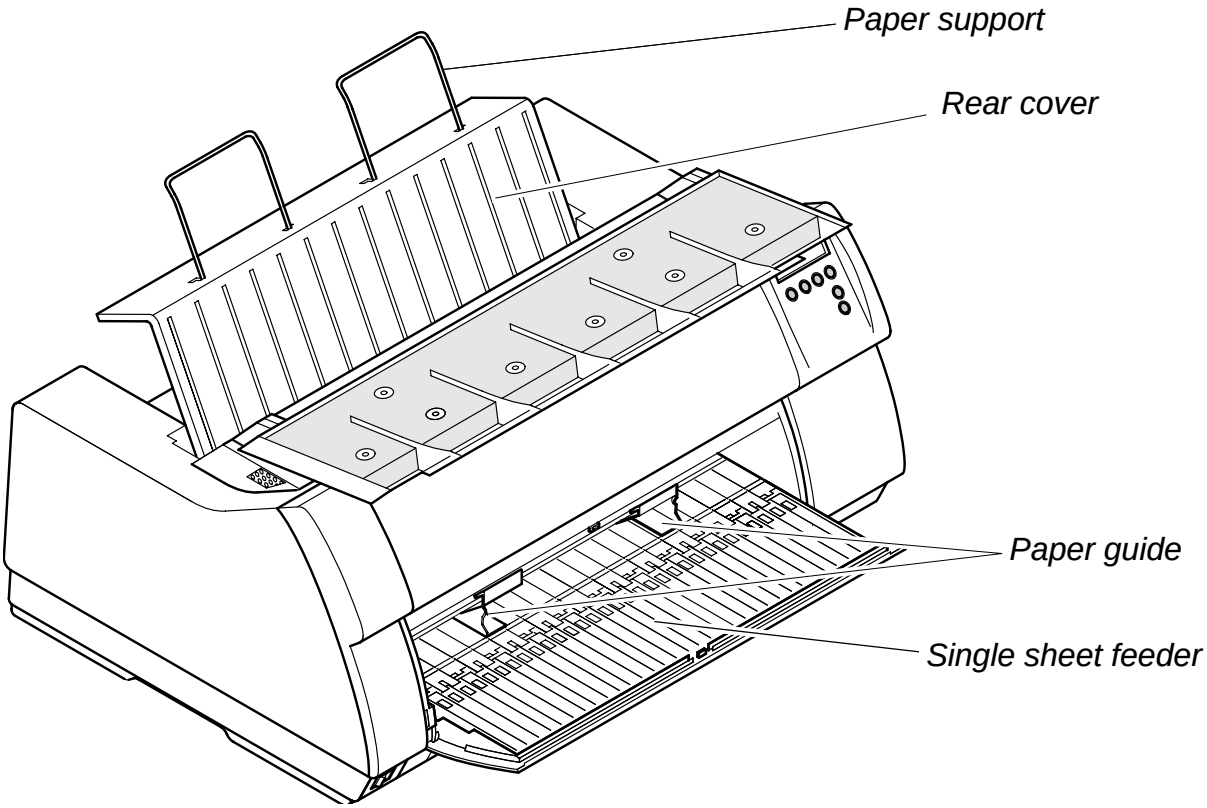
Printer in tractor mode



Printer in single-sheet mode



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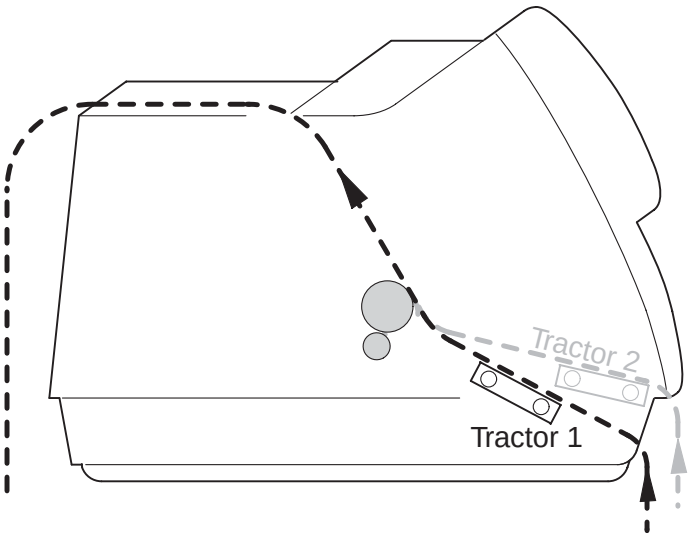
Paperway

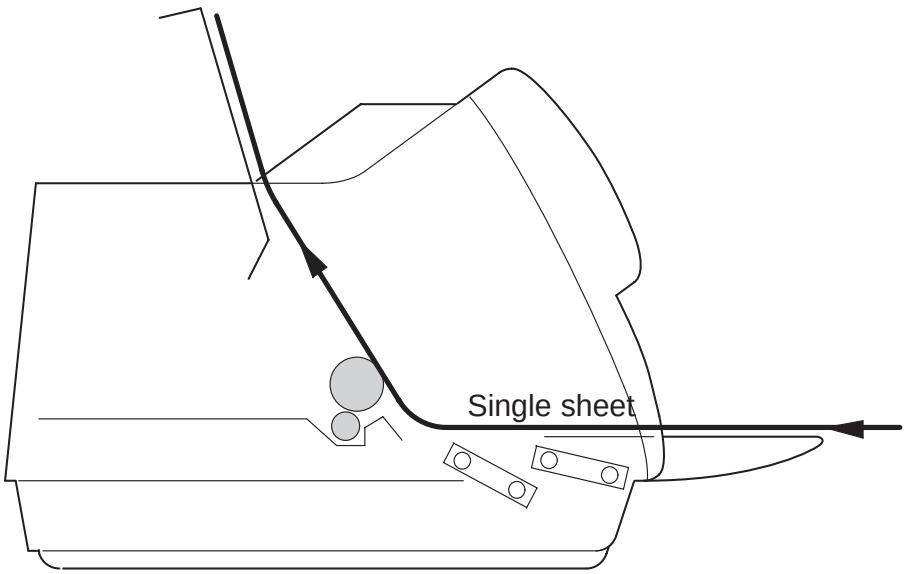
Standard printer: Tractor 1
Single sheet*

Option: Tractor 2

Fanfold paper mode



Single sheet mode*



* Not available on some models.

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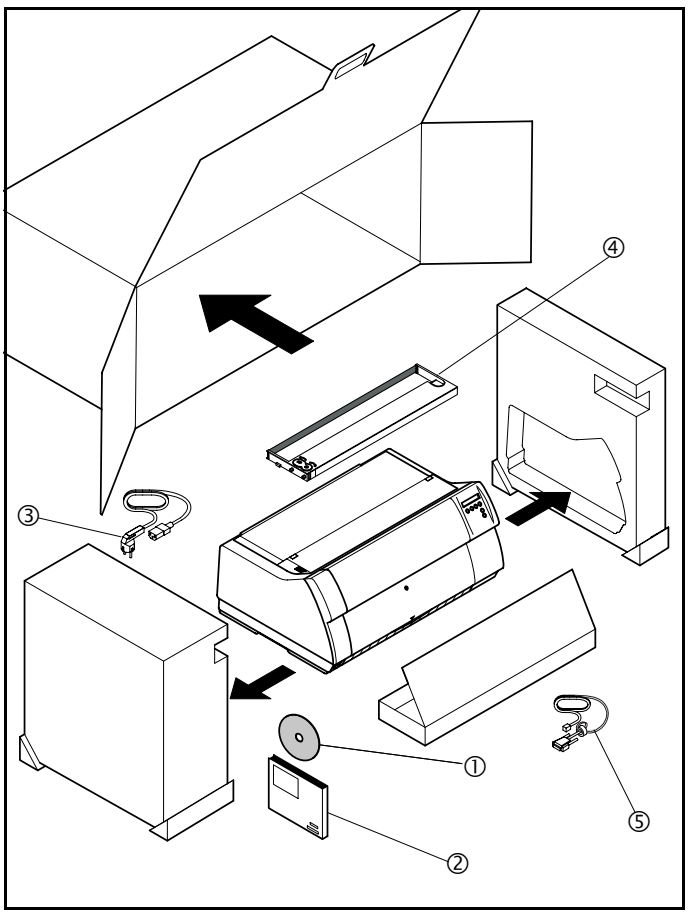
2 Installation

Unpacking the printer



Place your printer on a solid surface *(see Placing your printer, page 7)*.

Make sure that the “Up” symbols point in the correct direction.

Open the packaging, take out the accessory cassette and unpack it. Pull the printer out of the cardboard box towards you and remove the remaining packaging material.

Check the printer for any visible transport damage and completeness. Apart from this CD-ROM (①) the Quick start guide (②), the power cable (③), the ribbon (④) and the MMJ interface adapter (⑤) should be included.

If you find any transport damage or if any accessories are missing, please contact your dealer.

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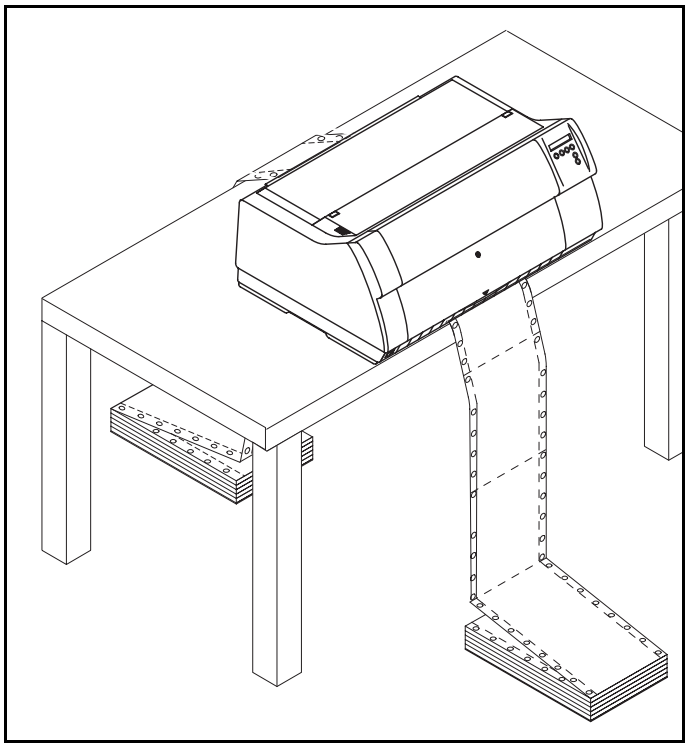
Placing your printer



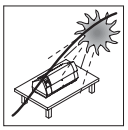
Place the printer on a solid, flat, surface, ensuring that the printer is positioned in such a way that it can not topple, and that there is easy access to the control panel and paper input devices. Also ensure that there is sufficient space for the printed output.

If you expect that frequent forward and reverse feeds will occur, you should place the printer as shown in the figure, if possible.

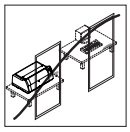
STOP **The power supply cable may be damaged if the paper edges constantly chafe the insulating sheath. The user must always ensure that there is sufficient distance between the power supply cable and the paper.**

When selecting the printer location, observe the following additional instructions:

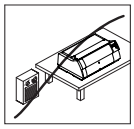
STOP **Never place the printer in the vicinity of inflammable gas or explosive substances.**



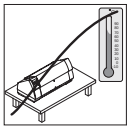
Do not expose the printer to direct sunlight. If you cannot avoid placing the printer near a window, protect it from the sunlight with a curtain.



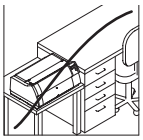
When connecting the computer with the printer, make sure not to exceed the permitted cable length *(see Interface specifications, page 123)*.



Ensure sufficient distance between the printer and any heating radiators.



Avoid exposing the printer to extreme temperature or air humidity fluctuations. Above all take care to avoid the influence of dust.



It is recommended to install the printer in a place which is acoustically isolated from the workplace because of the noise it may produce.

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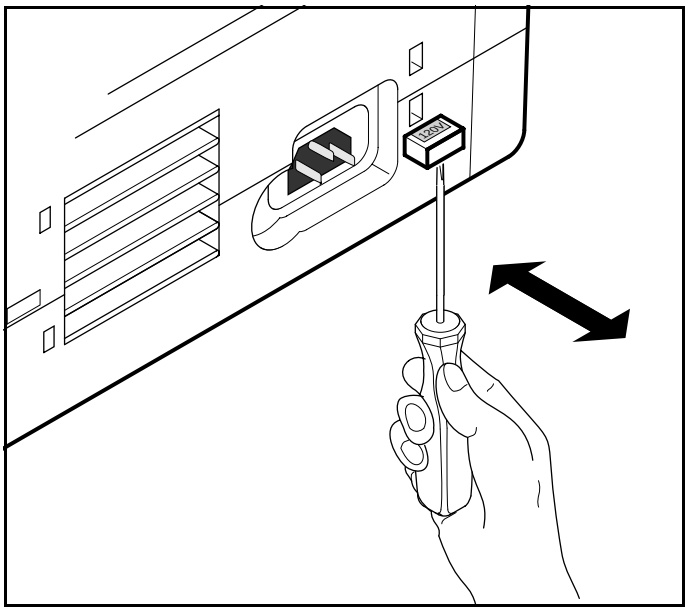
Checking the printer voltage

Make sure that the device has been set to the correct voltage (e.g. 120 V in the USA, 230 V in Europe). To do this, check the type plate above the power inlet at the back of the printer. Contact your dealer if the setting is incorrect.

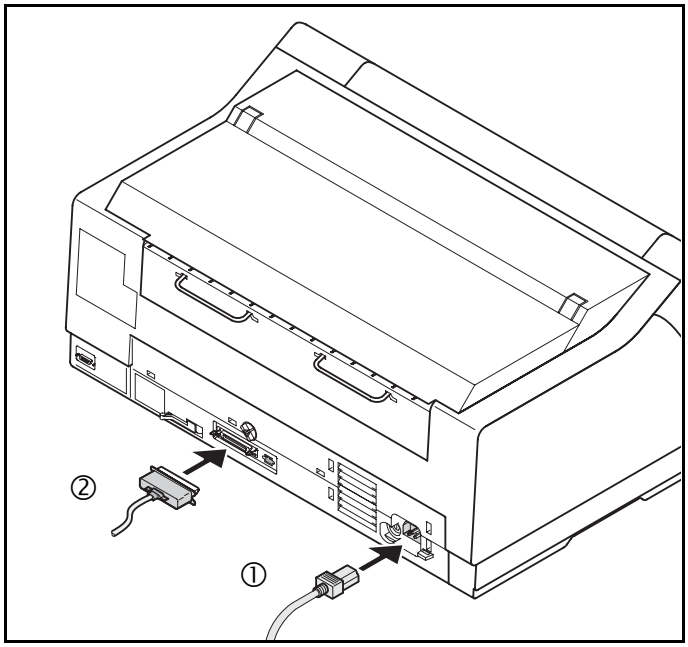
Never switch on the printer if the voltage setting is incorrect, since this may result in severe damage.



If the setting is incorrect, set the colored switch at the rear of the printer to the correct position, using a pointed object (e.g. screwdriver, ball pen or tweezers).

Make sure that the printer is switched off before setting the correct voltage; otherwise severe damage may be caused.

Connecting the printer



Connect the power cable ① to the power inlet of the printer. Connect the power cable plug to a mains socket.

Make sure that the printer and the computer are switched off and connect the data cable ② between the printer and the computer.

The printer by default is provided with a parallel, an Ethernet and a serial interface. For further information about the inter-faces, refer to the section *Interfaces* (page 133).

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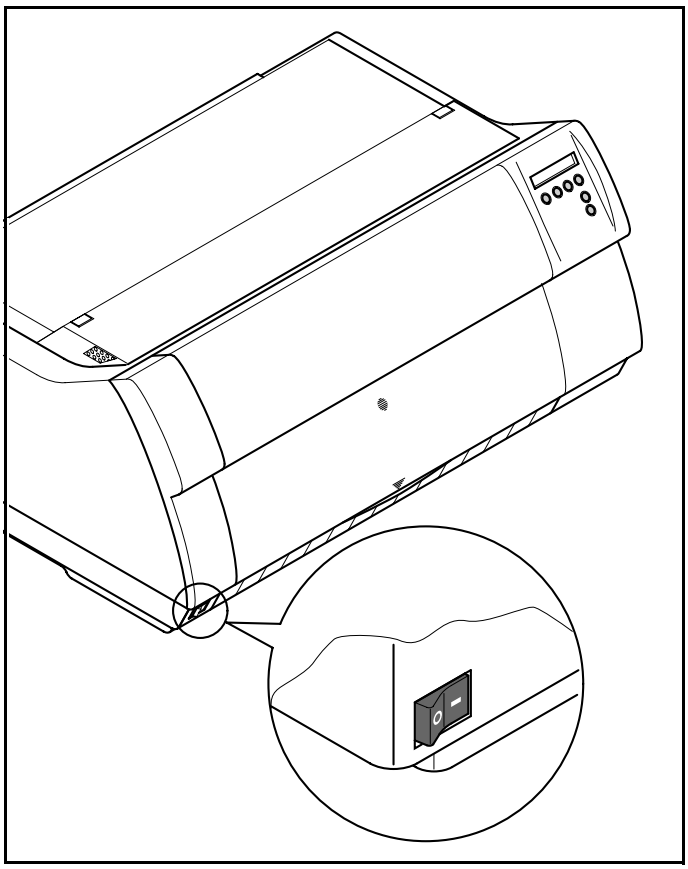
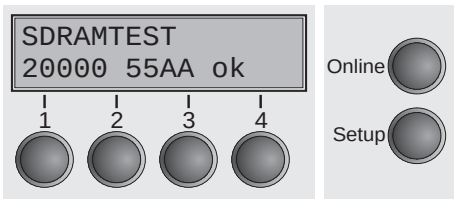
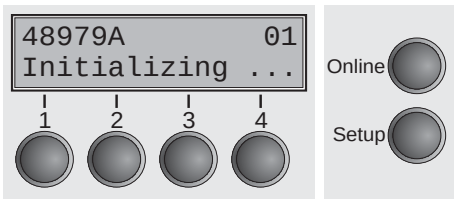
Switching on the printer



The power switch for switching on the printer is located at the bottom left at the front of the printer when viewed from the front.



After switching on, the printer passes through a memory test during the initialization phase. In the display appears temporary the message "SDRAMTEST XXXXX XX ok".



If the memory test is successful finished, the firmware number appears in the display.

After finishing the initialization the printer switches to online mode (see *Online mode*, page 28).

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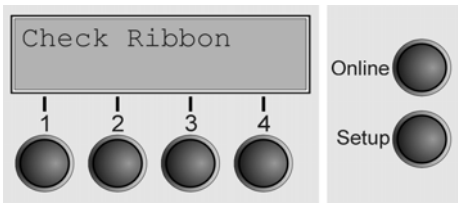
3 Inserting the ribbon cassette

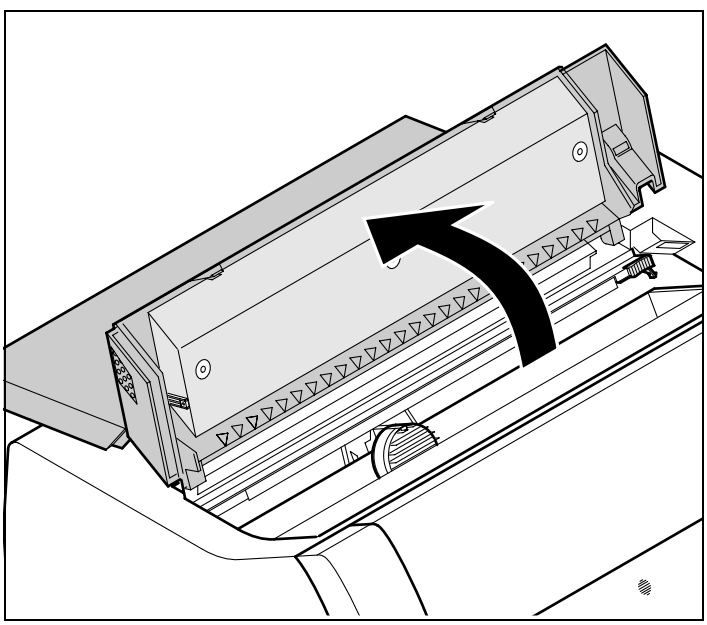
Installing the ribbon cassette the first time

When delivered, no ribbon cassette is installed. When you switch on the printer the first time, the printers display shows the message:



Now insert the supplied ribbon cassette.

STOP **During the process of initialization after powering on, the printer checks if a ribbon cassette is installed. It also checks during the execution of a print job the operativeness of the ribbon cassette. These functions mandatory require the use of the manufacturers original ribbon cassettes (see** *Accessories*, **page 143). If other ribbon cassettes were used, the message** Check Ribbon **appears in the display, it is impossible to print.**



Before opening the cover, make sure that the printer is switched on so that it can execute automatic preparations for ribbon changing (widening the print head gap).

Open the printer top cover.

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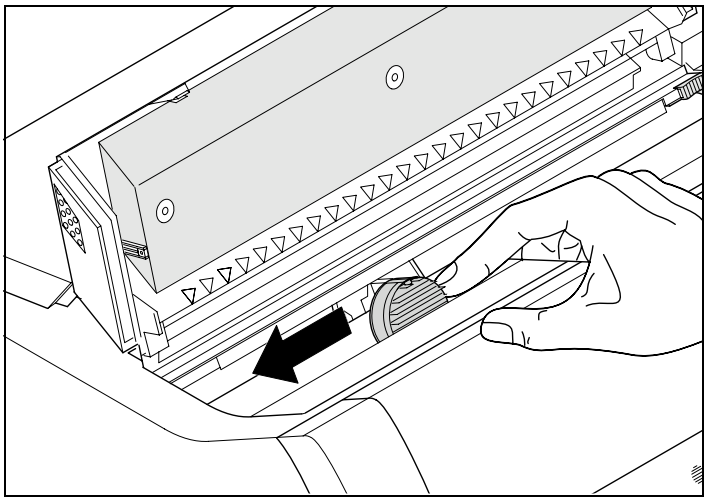
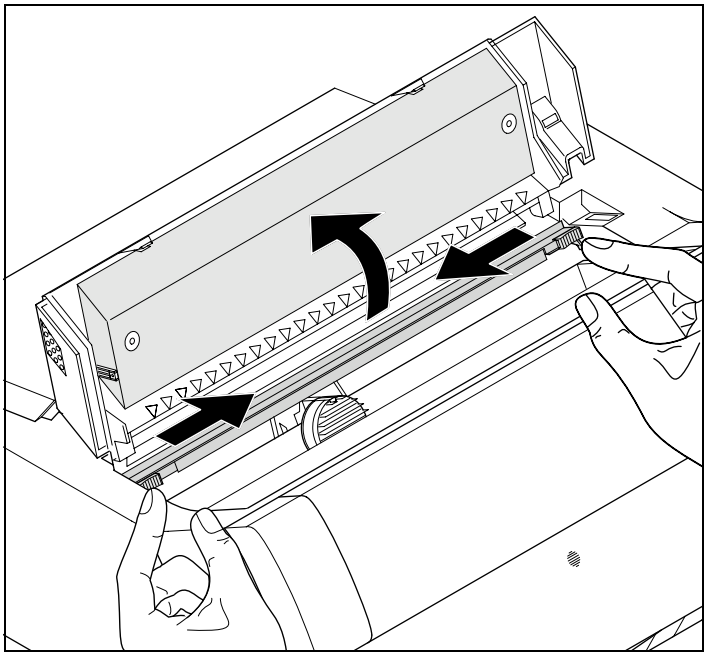
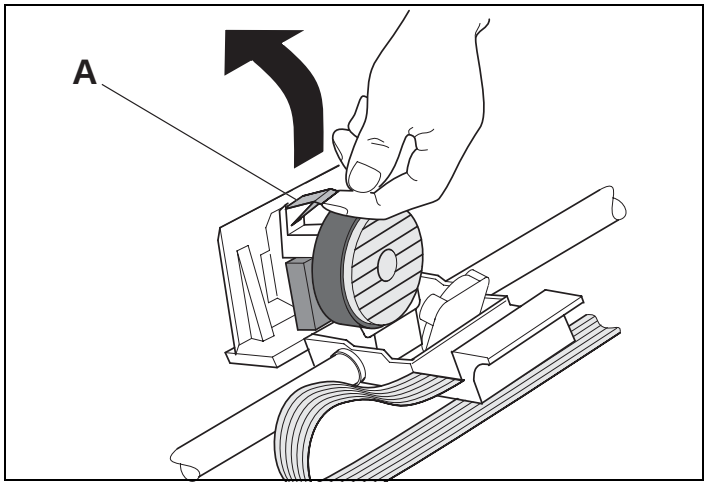


Cautiously slide the print head carriage to the left stop (viewed from the printer front).



Move the coloured friction tabs to the left and right (direction of the arrows) as shown in the figure and raise the friction mechanism.



Raise the coloured insertion tongue **A**.

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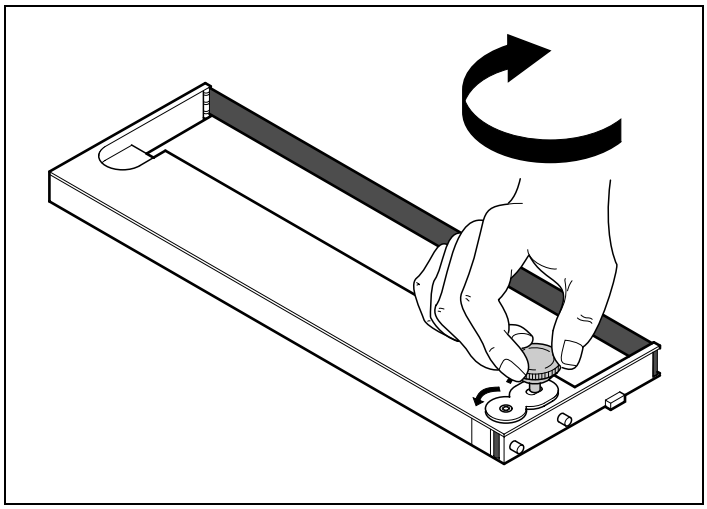
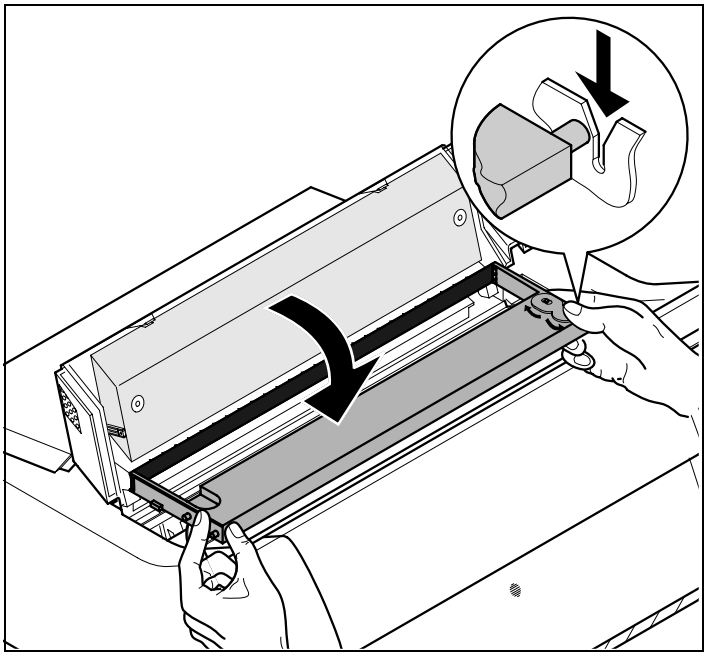
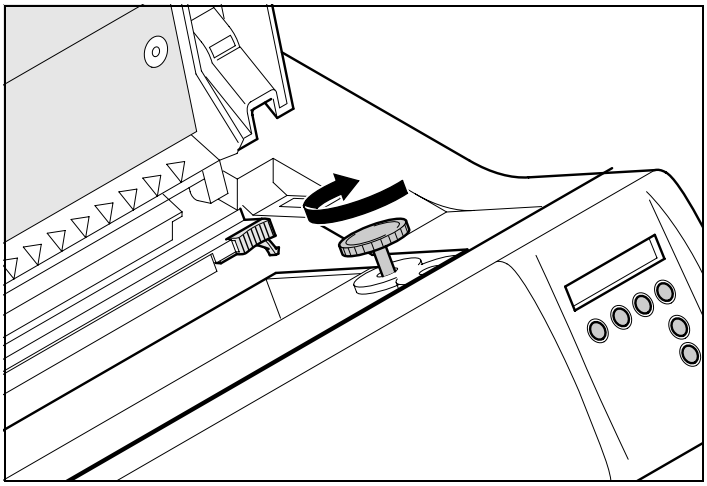


Insert the coloured ribbon tension knob into the right-hand front location of the new ribbon cassette. Turn the knob in the direction of the arrow in order to take up slack of the ribbon.



Slightly tilt the ribbon cassette forwards and thread in the ribbon between the coloured insertion tongue and the ribbon support (transparent plastic plate).

Align and insert the cassette into the guides on the left and right, then press down until it clicks into place.



Insert the coloured tension knob into one of the two locations.

Turn the tension knob to take up slack in the ribbon until it is seated correctly at the bottom in the ribbon support.

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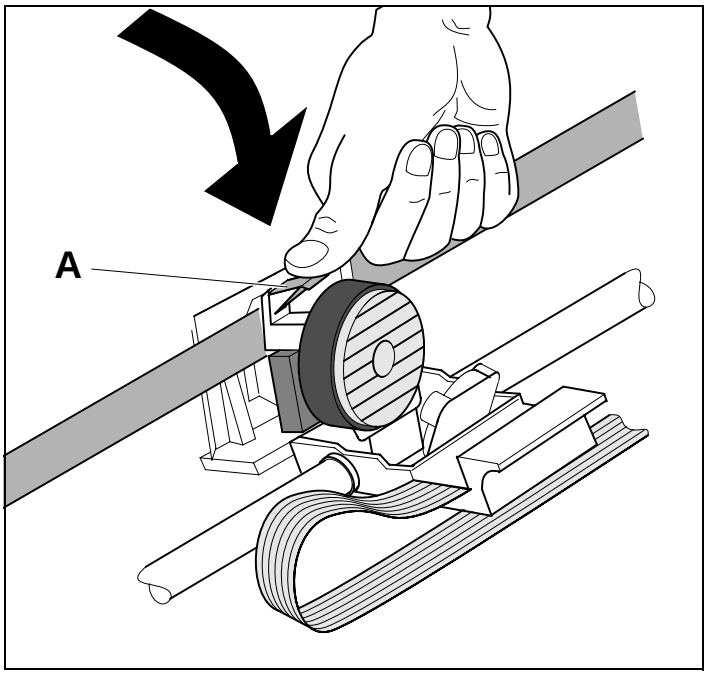
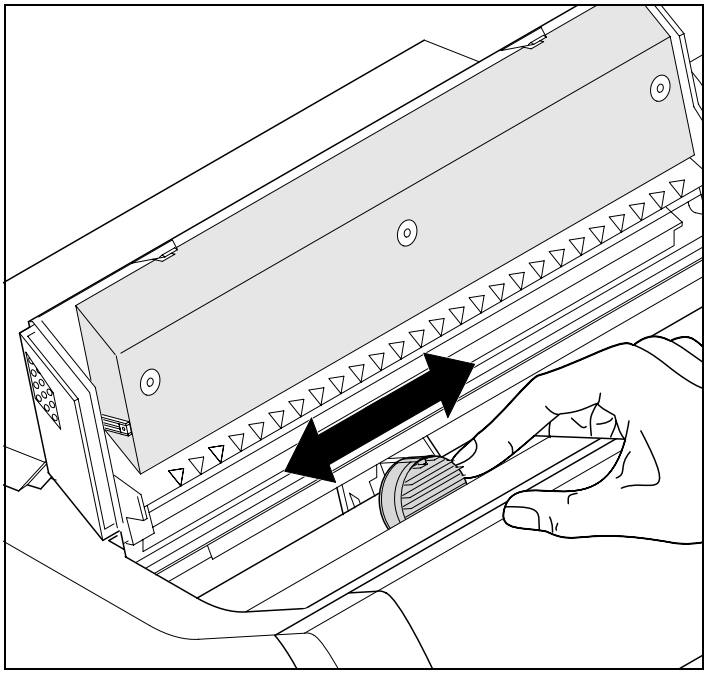


Press down the coloured insertion tongue **A**.



Move the print head carriage back and forth several times. If the ribbon is correctly seated, there must be no perceptible resistance.

The ribbon should be transported during the travel from left to right. If this is not the case, you should check that the ribbon cassette is correctly inserted on the right.

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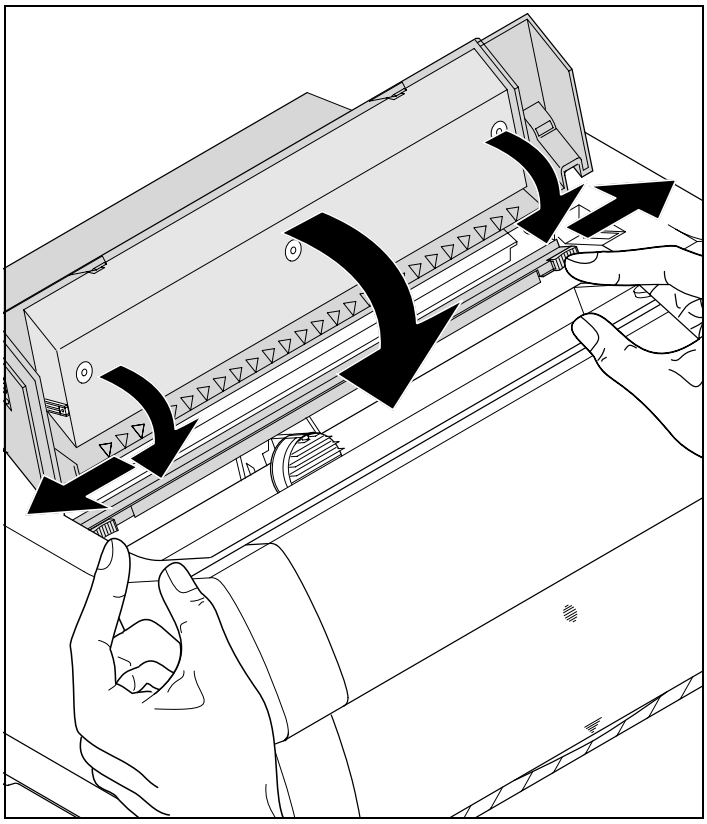

Press the friction mechanism down until it clicks into place.

Close the top cover.

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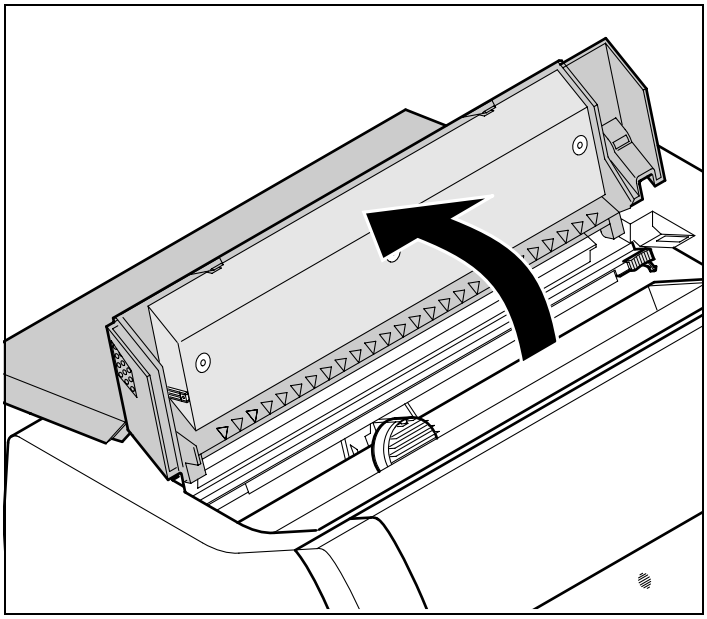
Changing the ribbon cassette

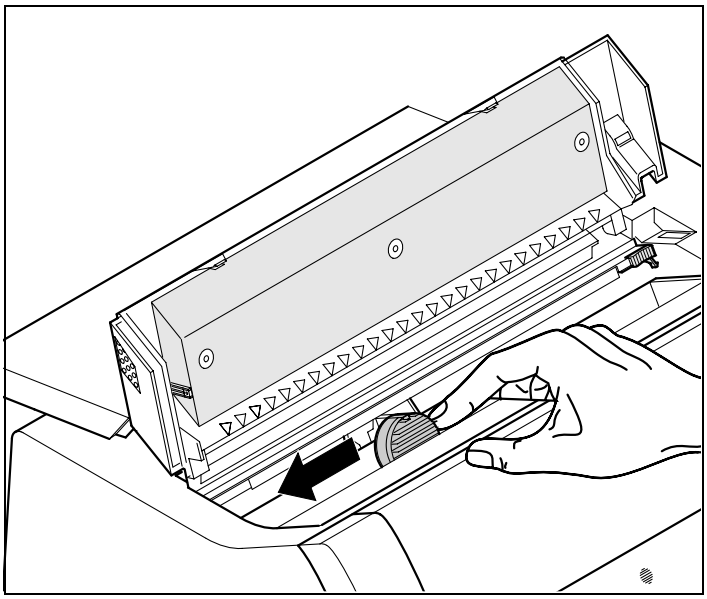
During the process of initialization after powering on, the printer checks if a ribbon cassette is installed. It also checks during the execution of a print job the operativeness of the ribbon cassette. These functions mandatory require the use of the manufacturers original ribbon cassettes (see *Accessories*, page 143). If other ribbon cassettes were used, the message Check Ribbon **appears in the display, it is impossible to print.**



Before opening the cover, make sure that the printer is switched on so that it can execute automatic preparations for ribbon changing (widening the print head gap).

Move the paper to the park position.

Open the printer top cover.



Cautiously slide the print head carriage to the left stop (viewed from the printer front).

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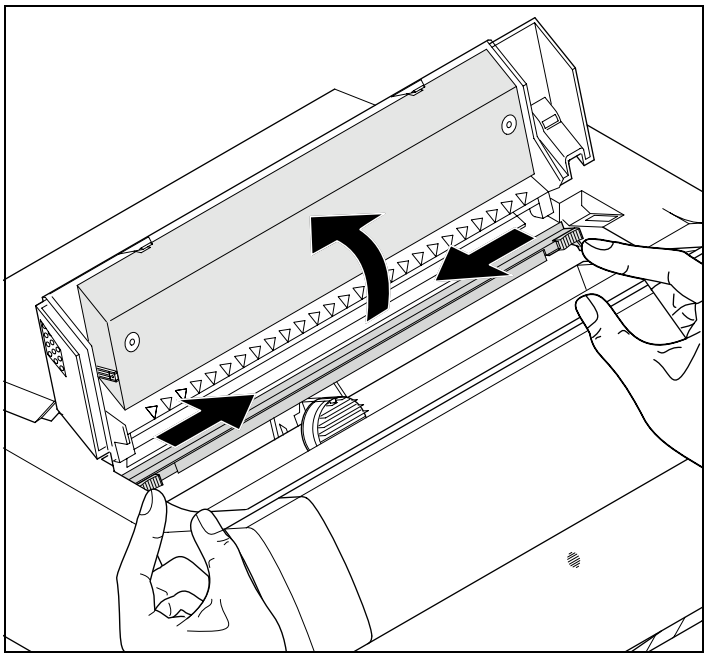
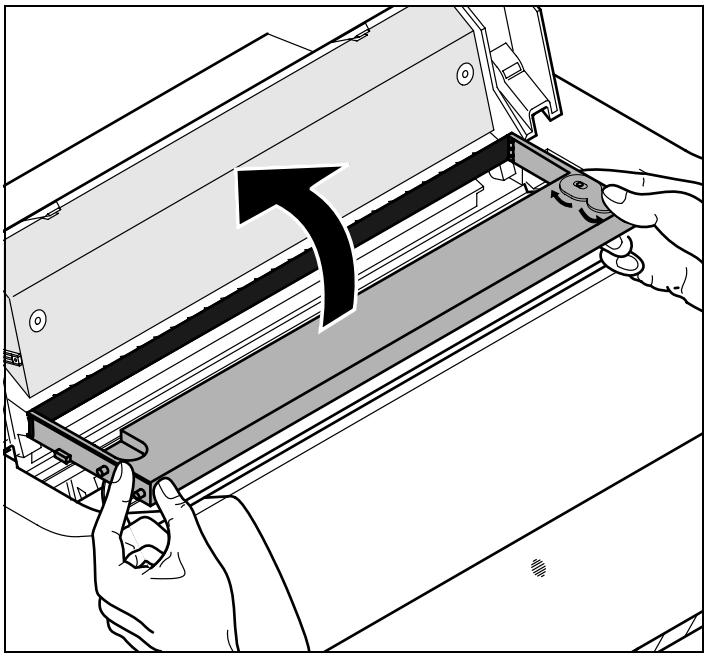


Move the coloured friction tabs to the left and right (direction of the arrows) as shown in the figure and raise the friction mechanism.



Remove the used cassette.

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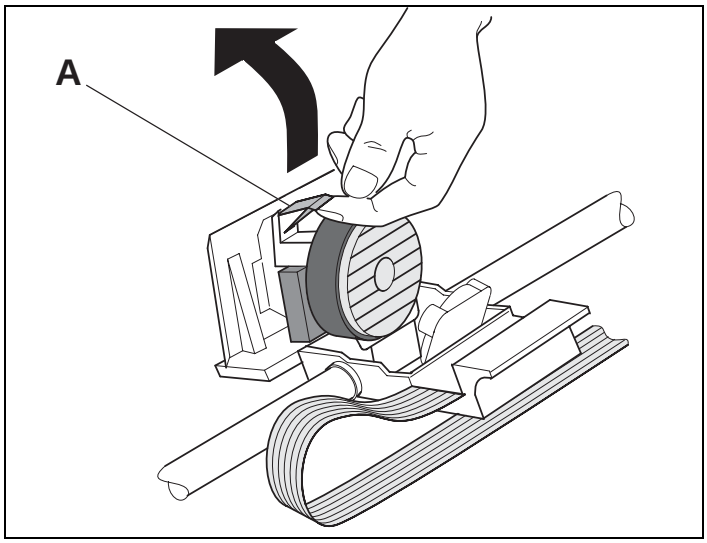
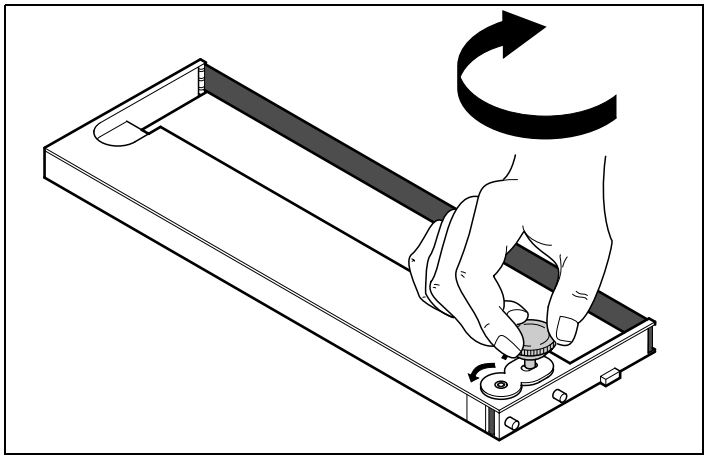
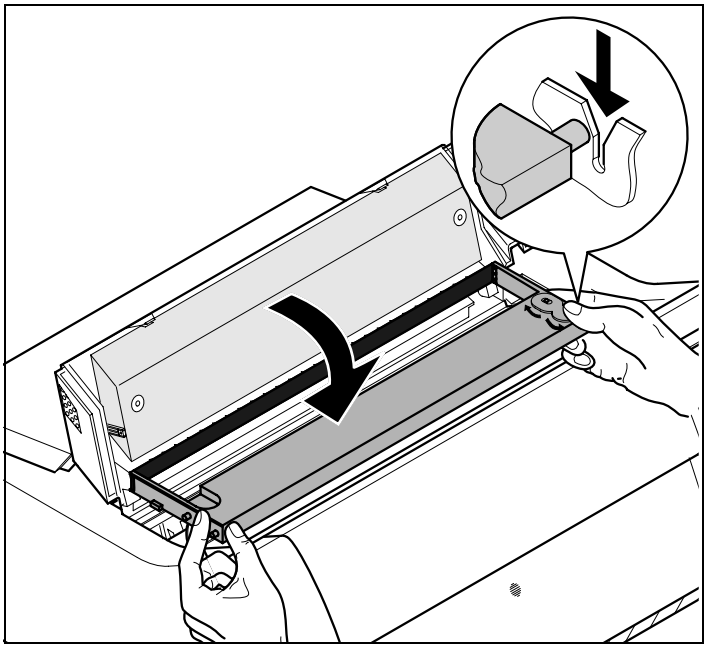


Raise the coloured insertion tongue **A**.



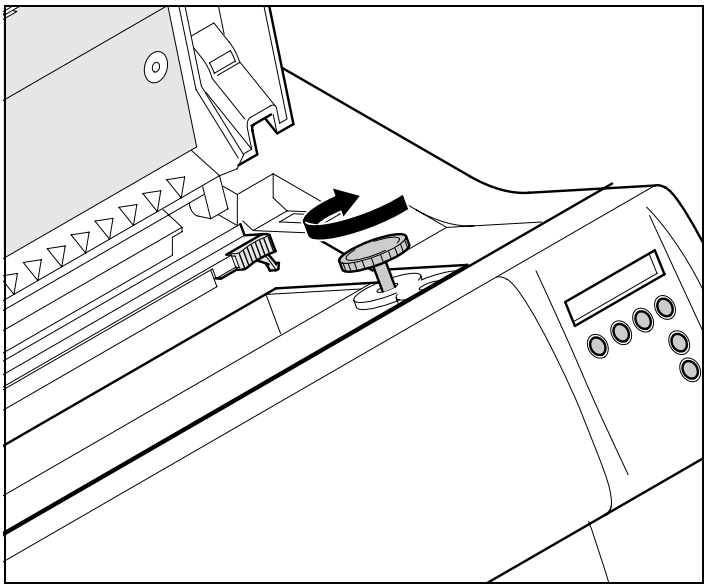
Insert the coloured ribbon tension knob into the right-hand front location of the new ribbon cassette. Turn the knob in the direction of the arrow in order to take up slack of the ribbon.



Slightly tilt the ribbon cassette forwards and thread in the ribbon between the coloured insertion tongue and the ribbon support (transparent plastic plate).

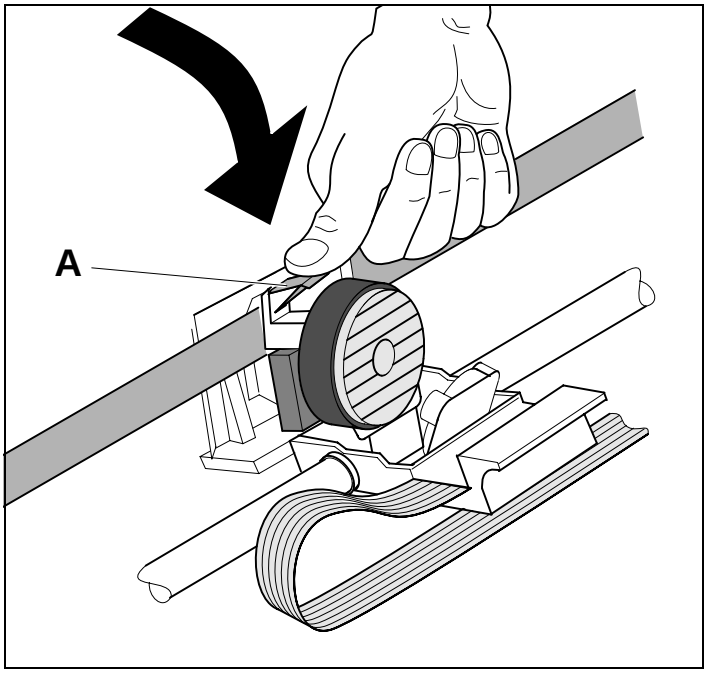
Align and insert the cassette into the guides on the left and right, then press down until it clicks into place.

Mantenimiento Periféricos Informaticos C/Canteras, 15 28860 Paracauellos de Jarama (Madrid) Tel: 00 34 917481604 Web: https://mpi.com.es/



Insert the coloured tension knob into one of the two locations.

Turn the tension knob to take up slack in the ribbon until it is seated correctly at the bottom in the ribbon support.



Press down the coloured insertion tongue **A**.

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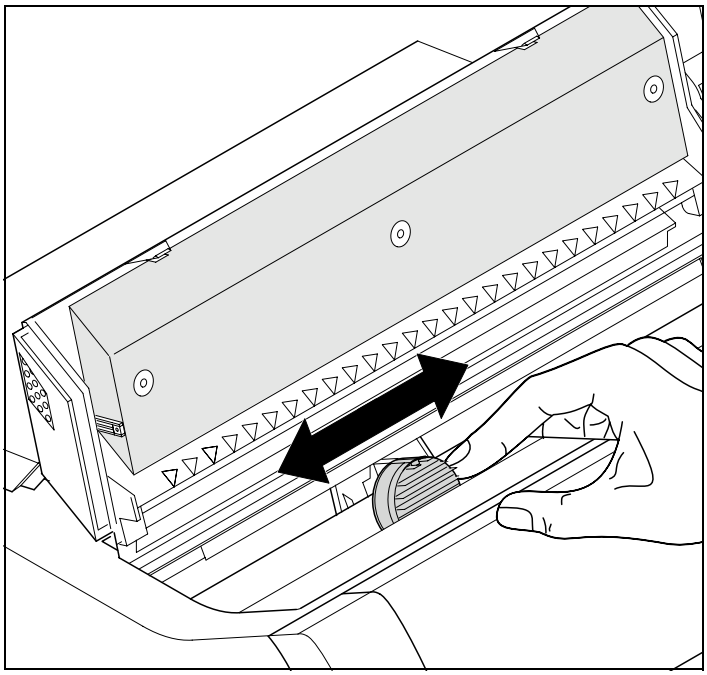
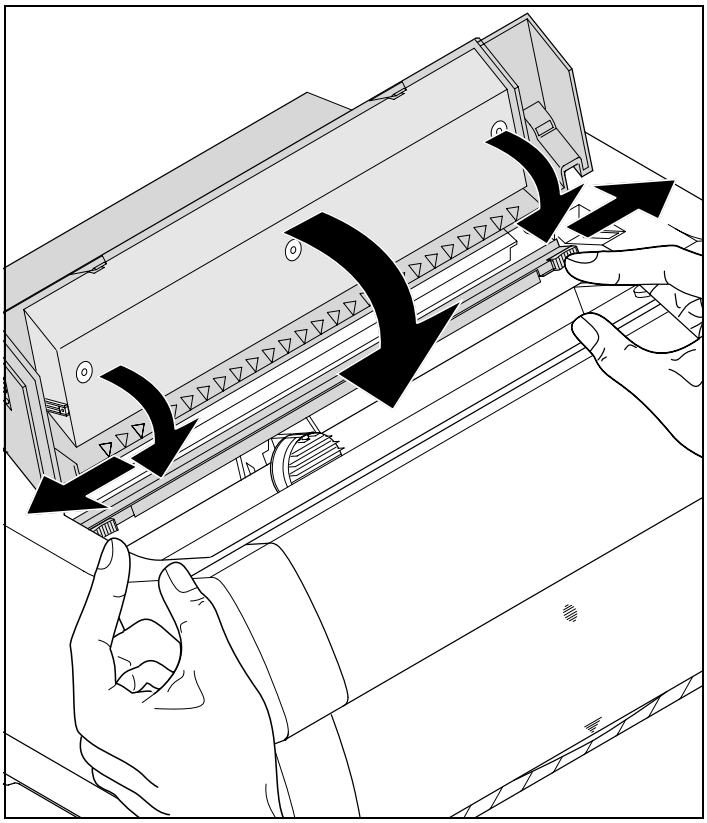


Move the print head carriage back and forth several times. If the ribbon is correctly seated, there must be no perceptible resistance.

The ribbon should be transported during the travel from left to right. If this is not the case, you should check that the ribbon cassette is correctly inserted on the right.



Press the friction mechanism down until it clicks into place.

Close the top cover.

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4 Printer drivers

You need to install a printer driver so that the printer can process the data from your application programs.

An original driver offers the best conditions for optimal printing results. All available printer drivers can be found on the CD-ROM enclosed with the printer, as well as on our *Internet* site, from which you can also download updated versions as necessary.

Installing a printer driver in Windows 95/98/ME

To install the printer driver, proceed as follows.

1. Insert the supplied online CD-ROM in the CD-ROM drive.
2. Click on the **Start** button in the Windows taskbar.
3. Move the mouse to **Settings** and click on **Printer** to open the printer folder.
4. Click on **New Printer**.
5. Click on **Next** In the **Printer Installation Wizard**.
6. Specify whether you want to operate the printer as a **Local Printer** or **Network Printer** by clicking on the relevant option, then press **Next**.

For instructions on installing the printer as a network printer, please consult the documentation supplied with your network operating system and/or printer server, or contact the network administrator.

7. Click on **Disk**, then on **Browse**.
8. Select the CD-ROM drive and open the directory **n:\english\drivers\<printer model>** (“n“ stands for the letter of your PC drive).

The printer driver is also available in German, French, Italian and Spanish language. If you want to install a printer driver in one of these languages open the respective directory.

9. Open the folder of your printer’s operating system, select the file oemsetup.inf and click on **OK**.
10. Select the printer type. Click on **OK**, then on **Next**.
11. Select the port to which your printer is connected, then click on **Next**.

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12 If required, edit the name of the default printer and specify whether you wish to use the printer as a default printer by clicking on the relevant option. Then click on **Next**.

13 Specify whether you wish to print out a test page (recommended) by selecting the relevant option and click on **Finish**. The printer driver will now be installed.

Installing a printer driver in Windows 2000/NT 4.0/XP

The online CD-ROM contains printer drivers for the most common Windows applications. To install the printer driver, proceed as follows.

1 Insert the supplied online CD-ROM in the CD-ROM drive.

2 Click on the **Start** button in the Windows taskbar.

3 Click on **Printers and Faxes** to open the printer folder.

4 Click on **File** and **Add Printer** in the menu bar.

5 Click on **Next** In the **Printer Installation Wizard**.

6 Specify whether you want to operate the printer as a **Local Printer or Network Printer** by clicking on the relevant option, then press **Next**.

For instructions on installing the printer as a network printer, please consult the documentation supplied with your network operating system and/or printer server, or contact the network administrator.
To install a network printer, you will need Administrator rights.

If you are using the printer locally, you can continue installing the driver in one of two possible ways:

- Manual installation of printer driver: in this case, continue with Step 7.
- Automatic installation of printer driver via Plug & Play function: in this case, continue with Step 12 once the printer installation wizard has determined the printer, port and printer name.
  Then click on **Next**.

7 Select the port to which your printer is connected, then click on **Next**.

8 Click on **Data Carrier**, then click on **Browse**.

9 Select the CD-ROM drive and open the directory **n:\english\drivers\<printer model>** (“n“ stands for the letter of your PC drive).

10 Open the folder of your printer’s operating system, select the file **oemsetup.inf** or **printer.inf** (Windows NT 4) and click on **OK**.

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11 Select the printer type. Click on **OK**, then on **Next**.

12 If required, edit the name of the default printer and specify whether you wish to use the printer as a default printer by clicking on the relevant option. Then click on **Next**.

13 If you are using the printer as a network printer, you have the option of sharing it with other network users. In this case you must enter an access name which will be displayed to the other network users. Then click on **Next**.

14 Specify whether you wish to print out a test page (recommended) by selecting the relevant option and click on **Finish**. The printer driver will now be installed.

Other operating systems

The printer can also be used with other operating systems such as Linux or Unix. In this case, set the printer to the Epson emulation or IBM emulation for which default drivers are available in most operating systems.

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Changing printer settings

You can make permanent changes to the printer settings using the control panel of the printer (see *The Menu*, page 45). Various printer settings can also be entered in the operating system of your PC, however.

1. Click on the Start button in the Windows taskbar.
2. Windows 95/98/ME: move the mouse to Settings and click on Printers to open the printer folder.
   Windows 2000/NT 4.0/XP: click on Printers and Faxes to open the printer folder.
3. Move the mouse pointer to the appropriate printer symbol, press the right mouse key and click on Properties.

   Details of the settings available in this window can be found in the Windows documentation or help pages.

Settings entered in the printer driver via Windows have priority over settings entered via the printer menu. It is therefore possible that the former may overwrite the latter.

Form settings (Windows 2000/NT 4.0/XP)

In contrast to Windows versions 95/98/ME, in which forms are defined in the printer driver itself, Windows versions 2000/NT 4.0/XP have a central facility for managing form properties and assign one paper feed only.

If you want to set up a form not included in the Windows default settings, proceed as follows.

You will need Administrator rights to define new forms.

1. Click on the **Start** button in the Windows taskbar.
2. Click on **Printers and Faxes** to open the printer folder.
3. In the menu bar, click on **File** and **Server Properties**.
4. In the window **Printer Server Properties**, click on **Form** if necessary.
5. Either select an existing form from the **Forms** list or activate the option **New Form**.
6. Enter a form name and the desired values.
7. Click on **Save** to save the new form.

   You can now assign this form to the paper feeds of your printer (see *Changing printer settings*).

The form cannot be assigned if its dimensions exceed the permissible paper sizes of the specified paper feed.

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Graphic options

You can select different print qualities via the Windows printer drivers (see table). This selection will affect the printing speed: the higher the print quality, the lower the speed (see *Printer specifications*, page 119).

To set the desired print quality, proceed as follows.

1. Click on the **Start** button in the Windows taskbar.
2. Windows 95/98/ME/2000: move the mouse to **Settings** and click on **Printers** to open the printer folder.
   Windows NT 4.0/XP: Click on **Printers and Faxes** to open the printer folder.
3. Move the mouse pointer to the printer symbol, click on the right mouse key and click on **Properties**.
4. Windows 95/98/ME: Click on **Graphics**.
   Windows 2000: Click on **Printer Properties**, then click on **Advanced**.
   Windows NT 4.0/XP: Click on **Printer Settings**, then click on **Advanced**.
5. Windows 95/98/ME: Highlight the required setting in the list next to **Resolution**.
   Windows 2000/NT 4.0/XP: Highlight the required setting in the list next to **Print Quality**.
6. Confirm your selection by clicking on **OK**.

Print quality	Resolution
High Speed Quality	90 x 60 dpi
Data Print Quality	180 x 90 dpi
Copy Print Quality	180 x 180 dpi
Near Letter Quality	360 x 180 dpi
Letter Quality	360 x 360 dpi

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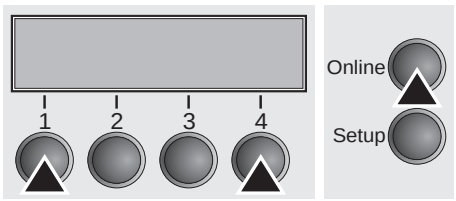
Loading optional firmware

To load new firmware, proceed as follows.

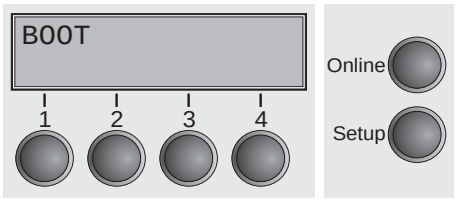
The most current version of the firmware can be downloaded from our *internet* page.



1 Switch off the printer. Connect your DOS PC (LPT1:) to the parallel port on the printer.

2 Press keys **1**, **4** and **Online**. Hold the keys pressed.

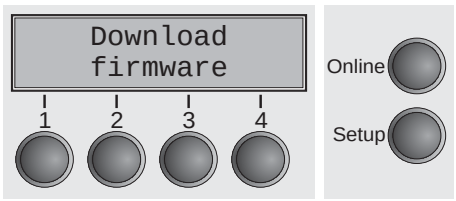
3 Switch on your printer.



The printer is ready for the download when **BOOT** appears on its display.

4 In Windows open the MS-DOS window.

5 Copy the file, e.g. DOWNLOAD.FDF, to your printer:
`COPY /B X:\path\DOWNLOAD.FDF PRN`
(`X:\path` stands for the drive and the directory in which the file is located.)



A progress indicator (bar) and DOWNLOAD FIRMWARE appears on the display during the download; alternatively, an error message is displayed:
PRG = Firmware
GEN = Character set or font (character generator)
P+G = Firmware and character set
BOO = Firmware, character set and boot block

The number of the currently transferred data block (frame) is displayed in addition in the top line of the display on the right.

DOWNLOAD OK and **BOOTAREA SKIPPED** is displayed briefly when the procedure has been completed successfully. The printer then runs through its initialisation routine, after which it is ready for use. Repeated separate loading of firmware and character generators is possible.

Troubleshooting

It is necessary to repeat the entire procedure if an error occurs during the download. This is indicated by a corresponding message on the display. It may be that not all fault messages can be shown on the display. In this case, the operating system of your PC displays an error message such as “Write error on device”.

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5 The control panel

The control panel keys are used for controlling your work with the printer. The control panel is located on the front right side of your printer and consists of a two-line LC display and six keys.

The functions of the keys depend on the printer's current mode (status). There are four basic modes.

- The *Online* mode (display message: **Ready**) is the printer's normal operating mode. Data from your computer can be received and printed.
- In the *Offline* mode (display message: **Pause**) the link between printer and computer is interrupted, i.e. no data can be received and printed.
- In the *Setup* mode you can either select the printer menu or carry out the so-called quick-switch function. The quick-switch option was included so that you can change the most important parameters (for example adjustments, character density, font, paper path, adjustments i.e. head gap) directly without having to enter them via the menu. The settings for the parameters character density and font are lost when the printer is switched off. They can be selected permanently in the menu mode of the printer.
- In the *Menu* mode further printer settings (line spacing, size of the interface buffer etc.) can be altered and saved permanently.

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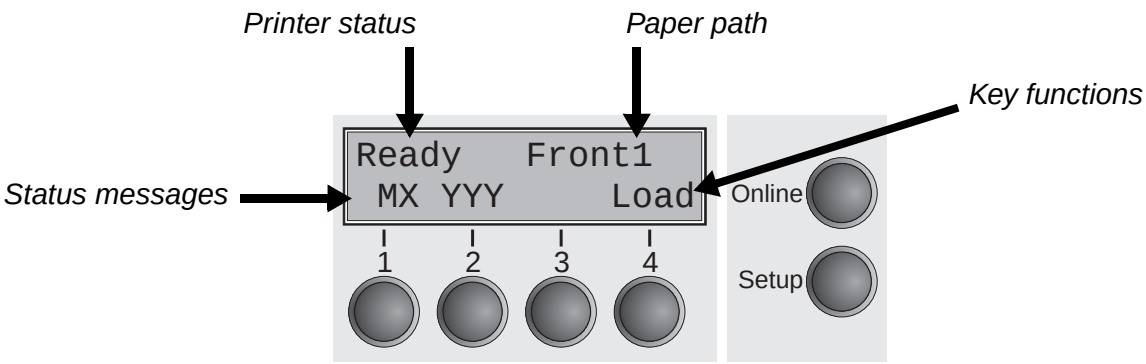
The LC display

The LC display tells you all the important printer settings and informs you which functions are currently assigned to which keys.

The upper line informs you that the printer is either in online or offline mode (in the example below the printer is in the Online mode), and the selected paperpath (below: **Front1** = tractor mode).

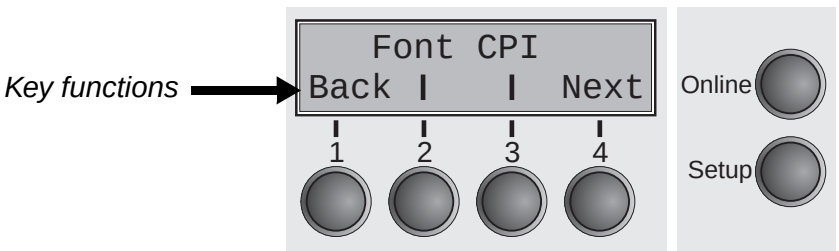
Example:



The second line informs you which functions are currently assigned to which keys. The word or symbol directly above a key tells you the current function of the key.

In our example, key 1 (**Back**) serves to activate the previous parameter group, while keys 2 (**Font**) and 3 (**CPI**) open the menus for editing the settings for fonts and character density. Key 4 (**Next**) takes you to the next parameter group.

Example:



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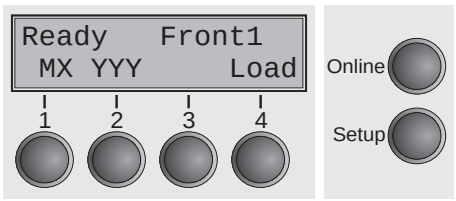
Online mode

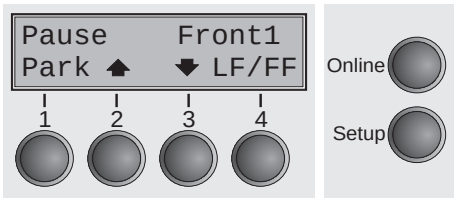
After switching on, the printer is automatically set to online mode. Only in this mode can it receive data from the computer.



- **MX** (a message only; X = 1 to 4): Shows the selected menu (Macro); for further information refer to *Loading menu configurations (Macro)* (page 51).
- **YYY** (a message only; YYY = EPS, IBM, DEC): Shows the active emulation of the active interface (parallel or serial); for further information refer to *Selecting Protocol (emulation)* (page 55).
- **Load** key (4): If this is displayed above this key, no paper is loaded in the printer or the printer is in park position. In this case the display switches between **Ready** and **Park** Position. Press the key to feed paper to the printing position.
- **Setup** key: Sets the printer to setup mode.
- **Online** key: Sets the printer to offline mode. Loaded paper will be transported to printing position. If the printer is set to online mode by pressing the **Online** key again, the printer transports the paper in tear position.

Offline mode

Only in this mode is it possible to perform step, line, or form feeds from the control panel, see *Paper transport (page 38)*; however, data cannot be received.



- **Park** key (1): Clears the paper path with paper loaded and activates paper path quick selection, see *Changing the paper path (page 32)*.
- Key ▲ (2): Short keypress: Microstep forward. Long keypress: Continuous paper feed.
- Key ▼ (3): Short keypress: Microstep reverse. Long keypress: Continuous paper reverse feed up to the park position.
- **Load** key (4): If no paper is loaded, see above.
  If paper is loaded: Loads paper from the selected paper source; the display changes to **LF/FF**
  Short keypress: Line Feed (**LF**).
  Long keypress: Form Feed (**FF**).
- **Setup** key: Sets the printer to setup mode.
- **Online** key: Sets the printer to online mode.

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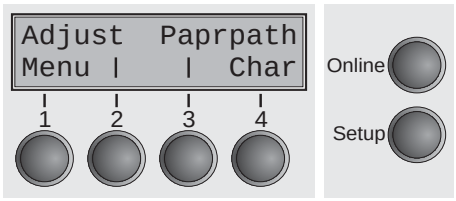
Setup mode



In this mode, the following settings are available:

- **Setup** key: Sets the printer to setup mode, in which the following settings can be selected:
- **Menu** key (1): Other menu settings. Acces may be disabled by the manufacturer (see note below).
- **Adjust** key (2): Sets the Tear position, first printing line and print head gap.
- **Paprpath** key (3): Sets the Paper path.
- **Char** key (4): Sets the font and number of characters per inch.

Access to the other menu settings (Menu) may be – depending on the model – disabled by the manufacturer.

Proceed as follows to release this lock temporarily.

1. Switch off the printer for approx. 5 seconds.
2. Switch the printer on again keeping the **Setup** key pressed until **Selftest** disappears on the display.

For information on how to enable access permanently and about the available settings, refer to the section *Menu lock (MenLock) (page 66)* **and** *Menu parameters* **(page 51).**

The settings for Font **and** CPI **are lost when the printer is switched off. The section** *Selecting font (Font)* **(page 53) explains how to set fonts permanently.**

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Messages in the LC display

If the printer detects an internal fault or user error or if it expects you to do something, a message will appear in the LC display. It also displays the status during an operation (e.g. **Loading default**). Below you will find a list of messages with brief descriptions of each message. The messages are described in greater detail in the chapter *Error messages via the display (page 112)*.

Message	Meaning
`Eject error`	The printer cannot eject the paper/ advance it to park position.
`Hardware Alarm`	Internal hardware error, contact your dealer or service technician.
`Initializing`	This message appears during the printer's initializing phase after switching on the printer.
`Load error`	The printer cannot draw in the loaded paper.
`Load paper from`	The printer has detected paper end during operation/printer was switched on with no paper loaded.
`Loading default`	Factory defined parameters will be reloaded in all available menues after switching on the printer.
`Out of paper`	The printer has detected paper end during operation / printer was switched on with no paper loaded.
`Paperwidth error`	Print characters override the detected right paper margin.
`Parity error`	A parity error during data transmission is indicated.
`Park position`	Printer was switched on with no paper loaded.
`Press any key`	The user is requested to press any key.
`PW sensor defect`	The automatic paper width detection cannot detect the left paper margin.
`Selftest`	After power-on, the printer executes a short hardware self-test.
`Tear Paper off`	The user is requested to tear off paper which has been advanced to the tear edge.

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Key functions when turning on the printer

If you keep one of the following keys pressed during power-on until the printer has completed initialisation, the corresponding function is activated:

- If you keep the **Online** key depressed while turning on the printer, you enter the printer's advanced menu mode. The advanced menu mode is described in the section *Advanced menu (page 100)* of this manual.
- If you keep the **Setup** key depressed while turning on the printer, you regain access to the printer menu if you had locked it before with the help of the MenLock function. The **MenLock** function is described in the section *Menu lock (MenLock) (page 66)*.
- If the four **function** and **select** keys (keys 1 to 4) are depressed simultaneously while turning on the power, all printer settings are reset to the default values.

This causes all the user's previous settings to be lost.

- If you keep the key 4 depressed while turning on the printer, a status page is printed out from the active paper source with the selected settings of all menus.

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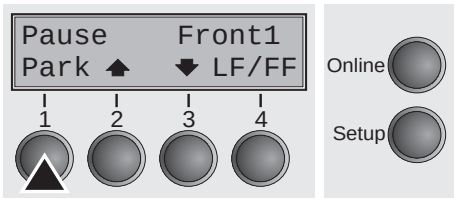
6 Paper handling

This section describes how to set the paper type, load fanfold paper and single sheets, transport paper and move the paper to the tear position.

Changing the paper path

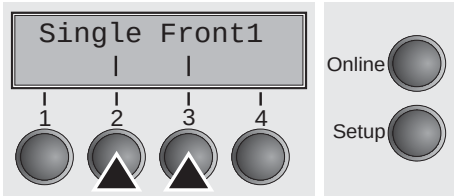
You can change the paper type either from an application program, by means of the paper path quick selection feature or in the Setup menu. In this section, the quick selection feature is described; for detailed information on how to make this setting via the Setup menu, refer to the section *Changing the paper type in the setup menu (page 33)*.



Make sure that the printer is in offline mode (**Pause**); press the **Online** key, if necessary.

Press the **Park** (1) key. If fanfold paper is loaded in the printer, it is fed to the tear position. The text **Tear paper off** appears in the display.

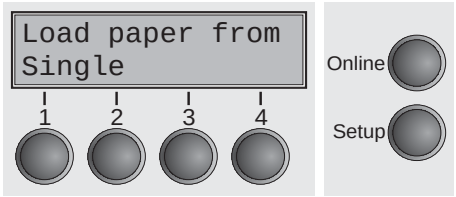
After having torn off the paper, press any key. If a single sheet is loaded in the printer, it is ejected.



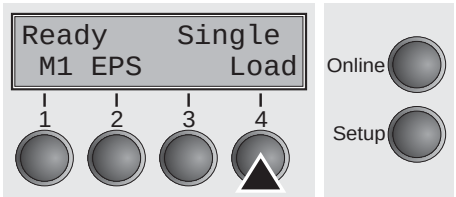
Use one of the marked keys to select the desired paper path, for example, **Single** (2).

The display shown here may vary depending on which paper options you have installed.
If you do not make a selection within 5 seconds, the menu is closed.

The display alternates between the basic menu and the menu in the following figure:



Insert a single sheet (for the procedure, see *Loading paper (page 34)*.



Press the **Online** key to set the printer to ready status. When the printer receives data from the computer, the single sheet is automatically loaded. Press the **Load** (4) key to load the single sheet before starting the printout.

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Changing the paper type in the setup menu

If you wish to change the paper type in the setup menu, proceed as follows.

- Press the **Setup** key followed by the **Paprpath** key (3).
- Select the desired paper type with the key **<** (2) or **>** (3).
- Press the **Set** (1) key to confirm your selection.

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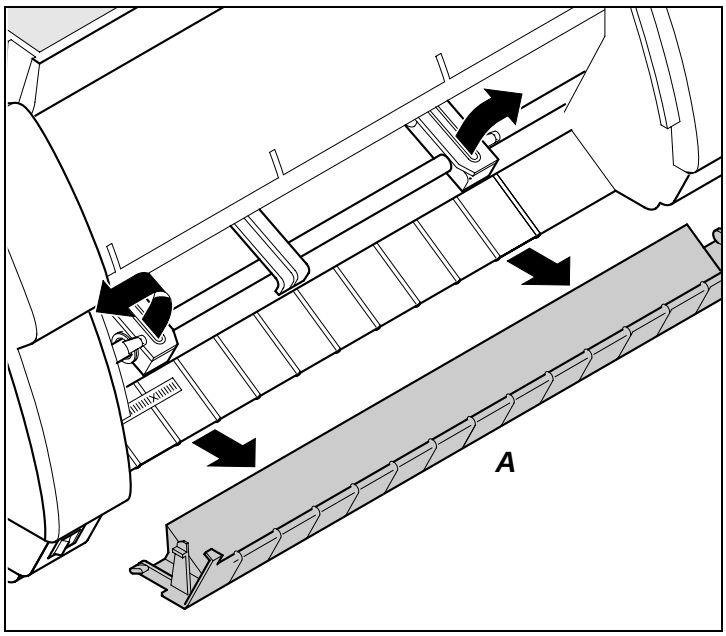
Loading paper

Your printer can process both fanfold paper and single sheets. For information on the supported paper sizes, please refer to section *Paper specifications (page 125)*.

Only use dust-free or low-dust paper. Many paper qualities are suitable for this printer. For more information, please refer to the section *Paper specifications (page 125)*.

Fanfold paper

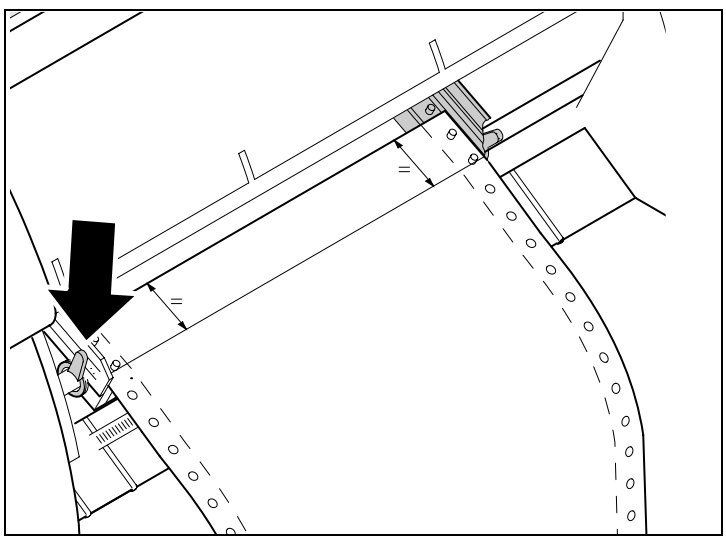


Make sure that the printer is set for fanfold paper printing. If necessary, change the paper type, see *Changing the paper path (page 32)*.

Raise the front cover.

Remove the bottom cover **A**.

Open the right and left tractor flaps.



Release the colored latch lever of the left-hand tractor and align the tractor so that the first printing position on the paper matches the **X** mark on the printer housing.

Lock the colored lever again.

Place fanfold paper into the left-hand tractor.

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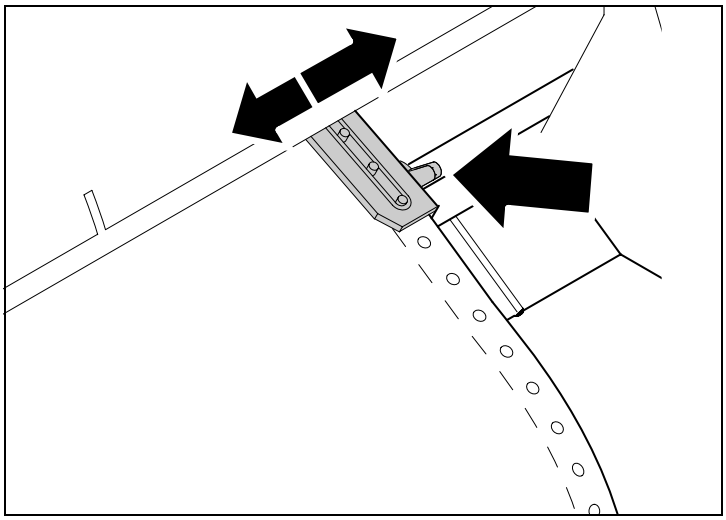


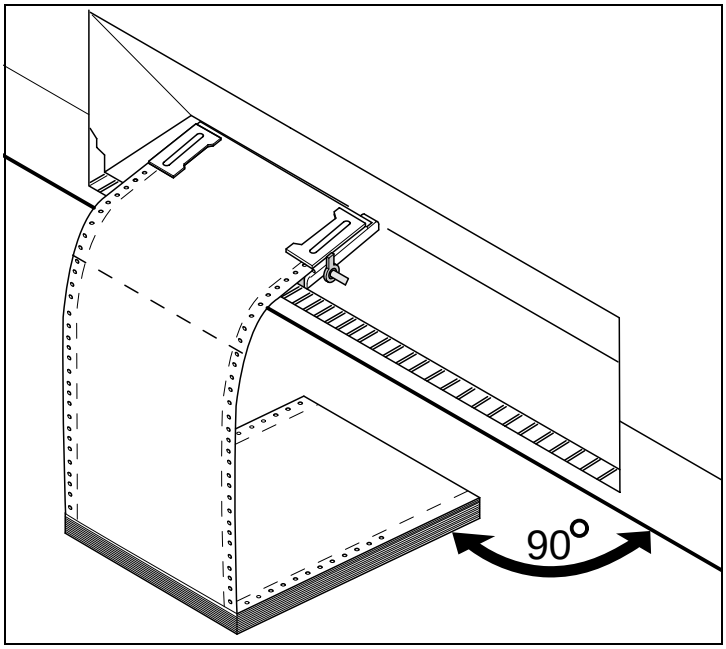
Open the colored latch lever of the right-hand tractor and align it to the paper width.

Insert the fanfold paper into the right-hand tractor.

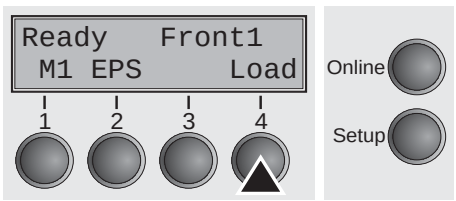
Make sure that it is inserted by the same length as on the left-hand tractor in order to avoid any paper jam.

Close the tractor flap and lock the tractor by turning the tractor lever to the rear.

Do not tension the paper excessively to avoid tearing the perforation holes; do not allow excessive slack since in this case the paper will bulge and there may be problems in the feeding process.



Make sure to align the paper stack in parallel with the printer and that the paper flow is unobstructed.



Re-install the bottom cover.

Lower the front cover.

Switch the printer on. The active paper source (**Front1** = tractor 1) appears in the display. The paper is automatically loaded when the printer is in online mode (**Ready**) and receives data from the computer.

Press the Load **(4) key only to load paper before starting the printout.**

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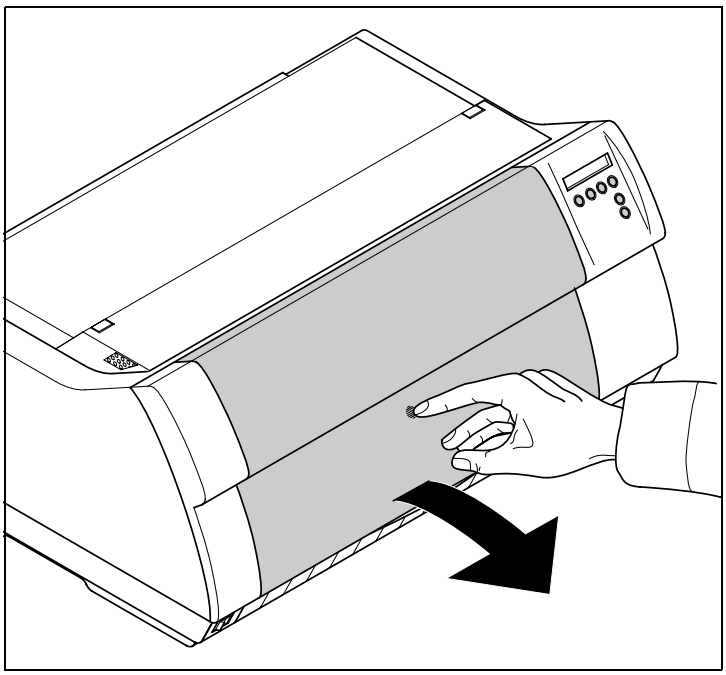
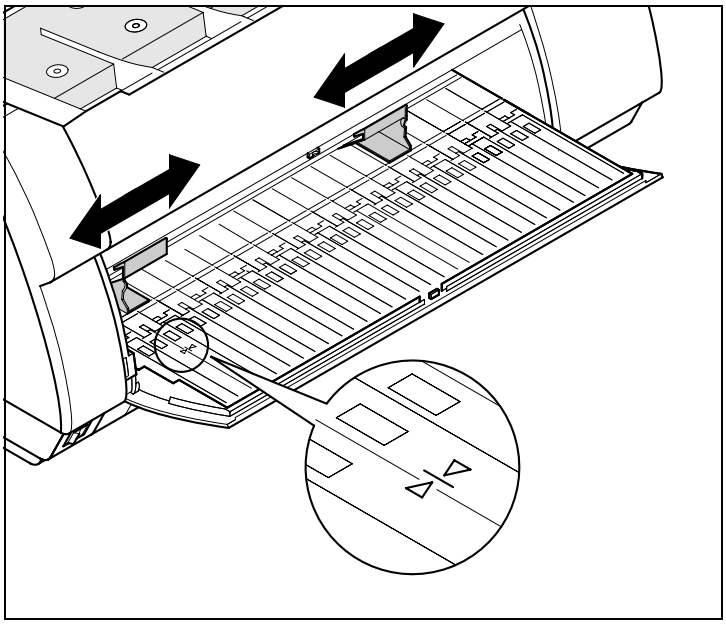
Single sheets



Some printer models are designed for fanfold paper operation only and therefore do not feature a single sheet feeder. The front cover can therefore not be opened on these models.

Make sure that the printer is set to single sheet mode. If necessary, change the paper type, see *Changing the paper path (page 32)*.

Press the latch at the middle of the front cover. The single sheet input tray opens downwards.



Align the left paper guide with the mark on the left of the single sheet input tray marking the first printing position.

Adjust the right paper guide to the width of the paper used.

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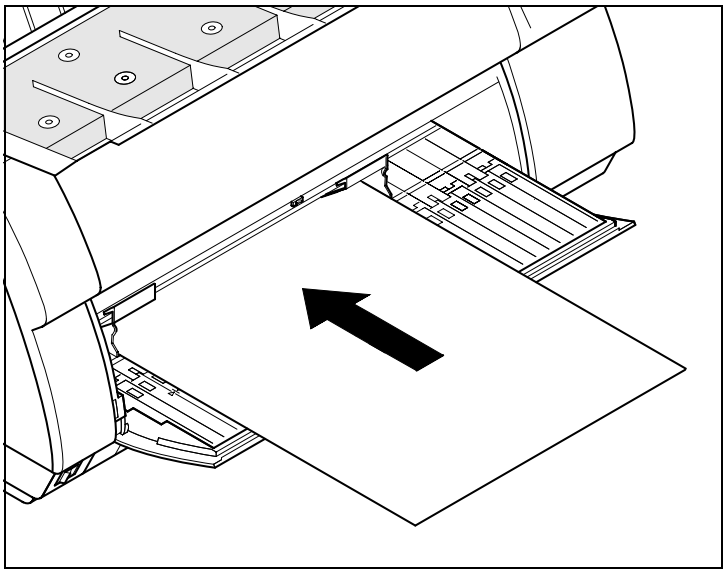
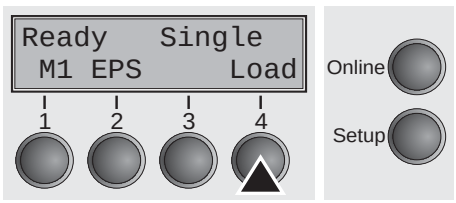


Insert the single sheet into the input tray as far as possible.

Press the **Online** key to set the printer to ready status. The sheet is automatically loaded when the printer is in online mode (**Ready**) and receives data from the computer.

The printer reports a paper out condition by displaying **Load paper from single** and beeping.



Press the **Load** (4) key only to load paper before starting the printout.

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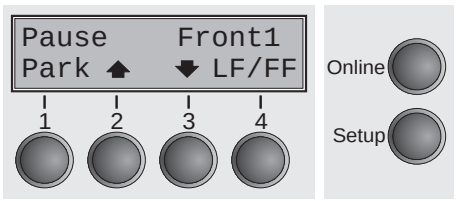
Paper transport



Loaded paper (fanfold paper/single sheets) can be transported in the printer in several ways.

Make sure that the printer is in offline mode (**Pause**); press the **Online** key, if necessary.

- Key **Park** (1): If fanfold paper is loaded in the printer, it is fed to the park position or the tear position. If a single sheet is loaded, it is ejected.
- Key ▲ (2): Short keypress: Paper is transported upwards step by step. Long keypress: Continuous transport upwards.
- Key ▼ (3): Short keypress: Paper is transported downwards step by step. Long keypress: Continuous transport downwards.
- Key **LF/FF** (4): Short keypress: Line Feed (**LF**) is effected. Long keypress: Form Feed (**FF**) is effected.
- Key **Online** (4): Moves Paper to tear position if the automatic tear function is activated.

The maximum value of the paper return feed is 22 inches. You can not remove paper generally if the Tear **parmeter is set to** No Tear/Reverse **in the active macro.**

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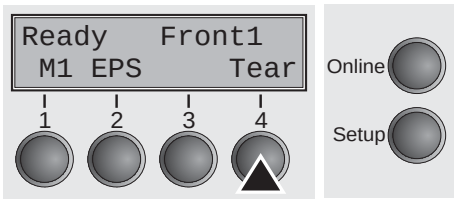
Moving the paper to the tear position

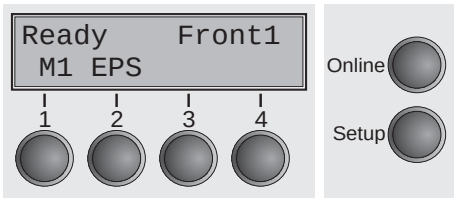
Your printer by default moves the paper into tear position once paper is loaded. If you deactivate this feature in the printer's menu (setting: **Manual**) you can use the **Tear** key to move the paper to the tear position. For more information refer to *View and tear position (TearView)* (page 71).



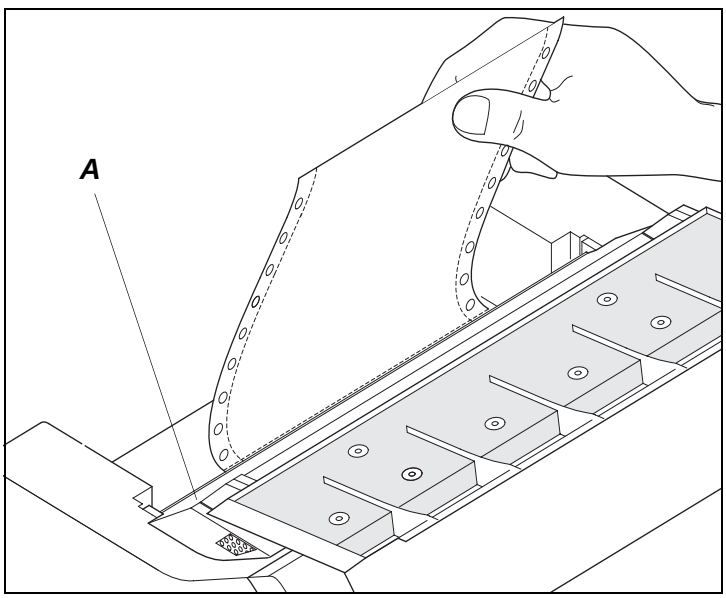
Swing the soundproofing cover towards the front (see below). The tear edge is located at the front side of the paper output opening.

Make sure that the printer is in online mode (**Ready**). If necessary, press the **Online** key.

Press the **Tear** (4) key. The printer moves the perforation edge of the fanfold paper to the tear edge.

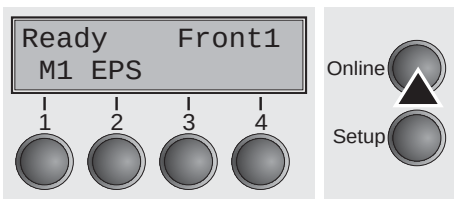


The display changes to…



Tear off paper at the tear edge **A**.

Make sure you tear the paper off straight, otherwise a paper jam may occur.



After having torn off the paper, press the **Online** key. The printer returns the paper to the first printing position.

If a print job is active, the printer returns the paper automatically to the first printing position.

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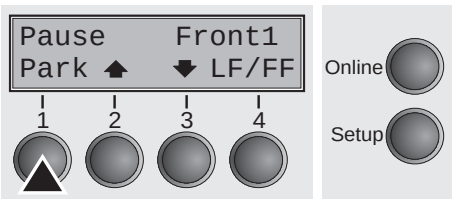
The tear function can be deactivated completely (No Tear/ Reverse**). In this condition the** Tear **key is not accessible; the paper can not be moved reverse. For more information, please refer to** *View and tear position (TearView)* **(page 71).**

Removing paper

Never use force to remove the paper from the printer. Otherwise the mechanical components may be damaged.



Make sure that the printer is in offline mode (**Pause**); press the **Online** key, if necessary.

Press the **Park** (1) key. If fanfold paper is loaded in the printer, it is fed to the tear position. The text **Tear paper off** appears in the display.

Now remove the paper from the tractor. Then press any key. If a single sheet is loaded in the printer, it is ejected.

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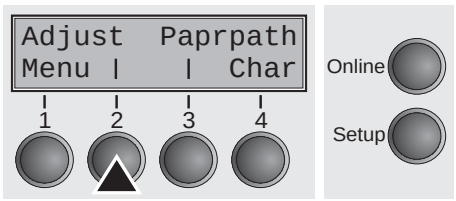
7 Settings

This section describes how to set the tear position, the first printing line, the print head gap as well as the font and the character density.

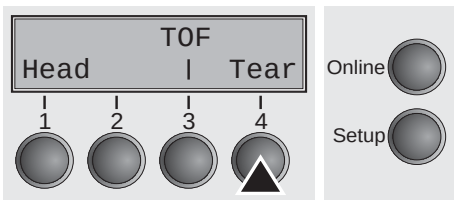
Setting the tear position

If the tear position of the paper is not aligned with the tear edge of the printer, you can adjust it. Inserted paper needs to be torn off if necessary and retracted to park position.

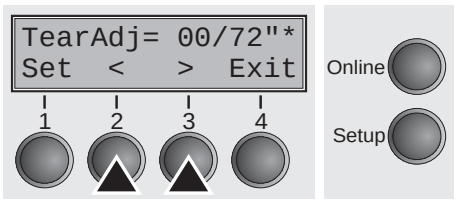


Press the **Setup** key. The printer changes to setup mode.

Press the **Adjust** (2) key.



Press the **Tear** (4) key.



Swing the soundproofing cover towards the front (see *Printer at a glance*, page 3). The tear edge is located at the front side of the paper output opening.

Press the **<** (2) or **>** (3) key to move the perforation to the desired position. Confirm the input by pressing the **Set** (1) key. Confirm the input again by pressing the **Setup** key. The printer is reset to the initial status.

The correction made – a maximum of approx. 1" (2.5 cm) in each direction – will be retained after switching the printer off. It can be set separately for each paper path.
Make sure that the set form length corresponds to the actual length of the forms you are using.

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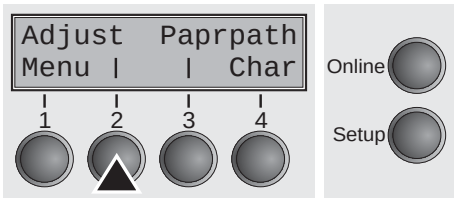
Setting the first printing line (TOF)

You can use the TOF function for setting the position of the first printing line for each paper source and each menu individually.

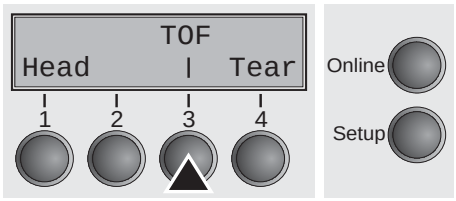
Before using the TOF function (if fanfold paper is used), you should first set the tear position; see *Setting the tear position (page 41)***.**



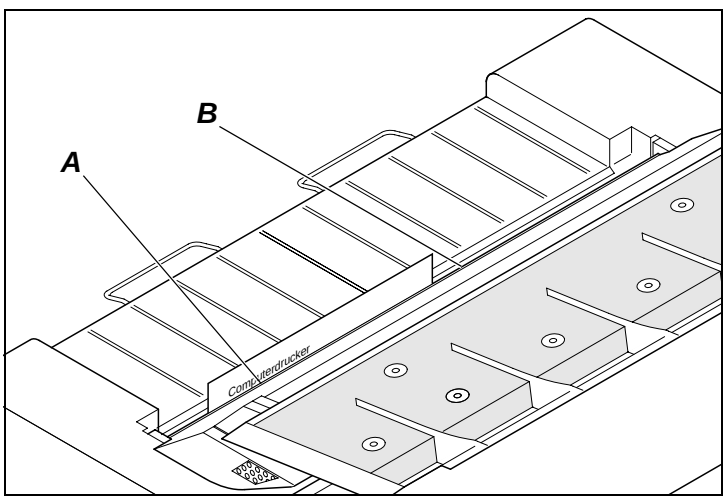
Swing the soundproofing cover towards the front (see *Printer at a glance*, page 3).

Press the **Setup** key. The printer changes to setup mode.

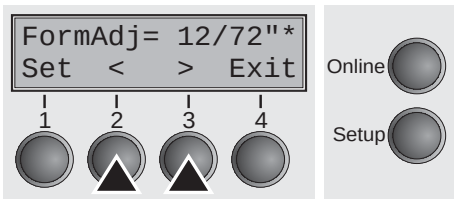
Press the **Adjust** (2) key.



Press the **TOF** (3) key.



The paper is fed to the position where the bottom edge of the first printing line **A** is aligned with the tear edge **B** of the printer. The factory setting for the first printing position (TOF) is 12/ 72" (4.23 mm). This is equivalent to the second line from the top.



Press the **<** (2) or **>** (3) key to move the first printing line to the desired position. You can set values from 0 to 220/72" for fanfold paper or for single sheets.

Confirm the input by pressing the **Set** (1) key. Press the **Setup** key. The printer returns to the initial status.

The selection made will be retained after switching off the printer.

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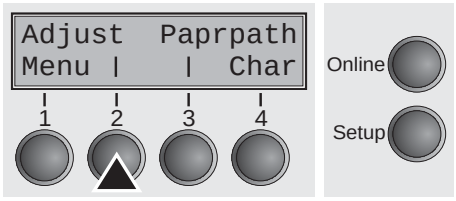
Setting the print head gap

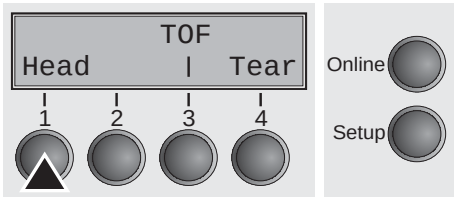
The printer features automatic print head gap adjustment to the thickness of the paper used. In setup mode, you can enter a correction value to modify the head gap that is normally determined automatically. This correction is useful for modifying the appearance of the type face. This correction will modify the appearance of the font. It may be necessary to obtain optimum printing results on certain paper types.

The AGA (automatic gap adjustment) function must be set to On**. For more detailed information, refer to the section** *Automatic gap adjustment (AGA) (page 77)***.**

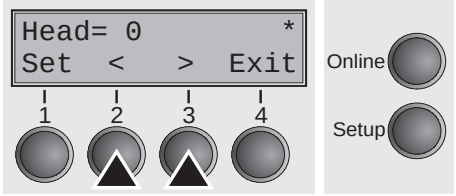


Press the **Setup** key. The printer changes to setup mode.

Press the **Adjust** (2) key.



Press the **Head** (1) key.



Use the **<** (2) or **>** (3) key to set the range within which the automatic gap adjustment is to be corrected. You can select values in the range from -10 to +10. Negative values reduce the head distance, positive values increase it.

Confirm the input by pressing the **Set** (1) key.
Press the **Setup** key. The printer returns to the initial status.

Negative values decrease the print head gap, positive values increase it. Changing the automatically determined value may have a strong effect on the printing quality.
The setting made will be retained after switching off the printer.

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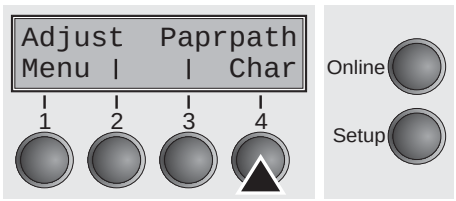
Selecting character density and font (temporarily)

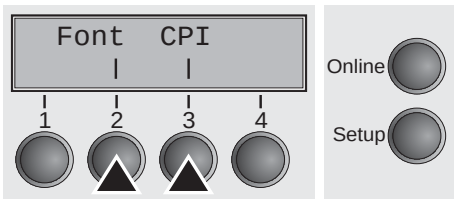
You can use the **CPI** (**C**haracter **P**er **I**nch) key in setup mode to select the number of characters per inch to be printed.

You can use the **Font** key to select resident fonts.

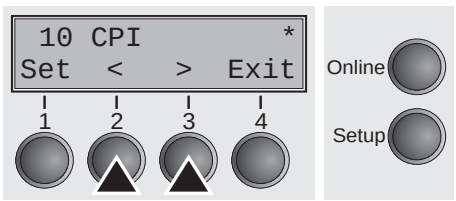


Press the **Setup** key. The printer changes to setup mode.

Press the **Char** (4) key.

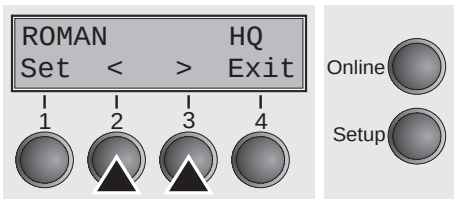


Press the **CPI** (4) or **Font** (1) key (in our example, press **CPI**).



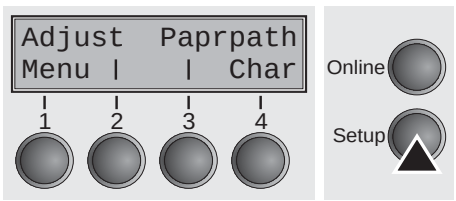
Use the **<** (2) or **>** (3) key to set the desired character density. Confirm the selection by pressing the **Set** (1) key.

You can cancel the selection and leave the setting unchanged by pressing the **Exit** (4) key.



If you pressed the **Font** (1) key, use the **<** (2) or **>** (3) key to select the desired font. Confirm the selection by pressing the **Set** (1) key.

You can cancel the selection and leave the setting unchanged by pressing the **Exit** (4) key.



Press the **Setup** key. The printer returns to the initial status.

It is also possible to press the **Online** key. The printer then changes directly to online mode.

The selection made will not be retained after switching off the printer. For more details on how to set fonts permanently, please refer to the chapter *Selecting font (Font)* **(page 53).**

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8 The Menu

Programming via the control panel

Apart from being able to control your printer via the applications software you use, you can also program the printer directly. There are two programming options you can use:

- Programming via the control panel.
- Programming via the interface using Escape sequences or control codes.

Settings made by escape sequences have priority over settings made in menu mode; therefore they will override these. Informations on Escape sequences can be found in Appendix E, *Emulations* (page 131).

Programming via the interface gives you far greater freedom for designing your printed pages, however, it is also a more sophisticated method and requires some experience with programming languages and printer control systems.

All programming via the interface is lost after you turn off the printer, whereas the programming carried out using the control panel, is saved and stored even after you turn off the printer.

Enabling access to menu mode

On some printer models the menu can be locked by default to protect it from accidental or unauthorised access.

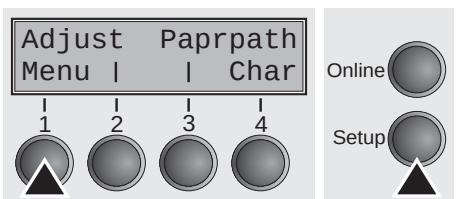
Proceed as follows to release this lock temporarily.

1. Switch off the printer for approx. 5 seconds.
2. Switch the printer on again keeping the Setup key pressed until **Selftest** disappears from the display.

For information on how to enable access permanently and about the available settings, refer to the section *Menu lock (MenLock) (page 66)*.

Calling up the menu

You can access the menu in the following way:



Press the **Setup** key. The printer switches to Setup mode. (The Setup mode can be selected both in the Online and Offline mode.)

To access the printer menu, press the key directly underneath the word **Menu** (1).

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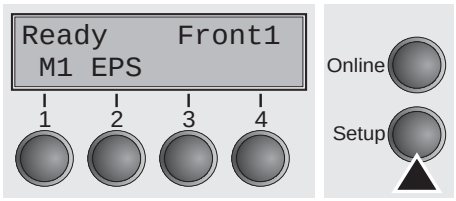
Menu configurations (Macros)

Every printer is shipped with factory default settings. Basic settings such as emulation, character size, form length etc., which many applications make use of, are set. At the end of this chapter you will find a menu printout (*Seite 99*) which shows you the printer's default settings.

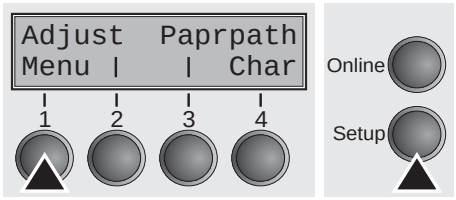
Your printer allows you to set and use four independent menu configurations (Macros). If one of your applications for example requires an IBM printer while another program works better with an EPSON printer, you can set an IBM emulation configuration with the desired settings, and set the second configuration as an EPSON emulation.

The active macro is always the one you used last. When you switch on the printer for the very first time, macro no. 1 is loaded. Macro no. 1 only remains active until you load another macro. The last active macro is stored even after the printer is switched off and is reloaded automatically when the printer is switched on again.

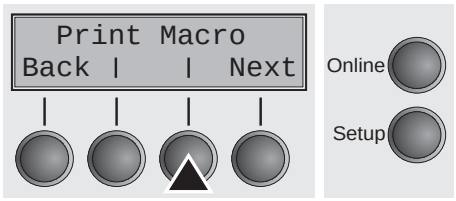
For example, to change from macro no. 1 to macro no. 3:



Press **Setup** key.

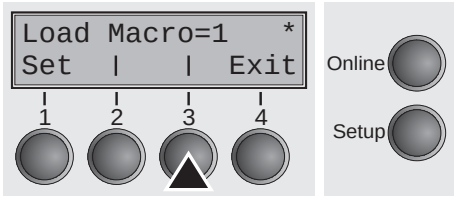


Press **Menu** (1) key.



Press **Macro** (3) key.

Now the following message appears in the LC display:



Now press the **<** (2) or **>** (3) key repeatedly until **Load Macro=3** appears.

Then select menu no. 3 as the current setting using the **Set** key (1).

The currently active setting is marked with an asterisk (*).

If changing macros it is possible that the printer initializes due to different emulation settings.

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Menu handling

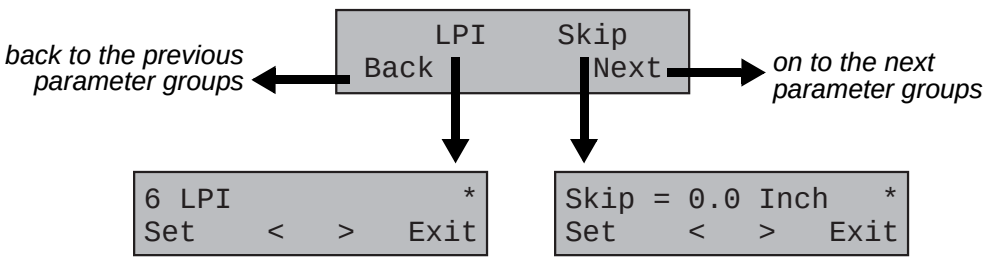
You can navigate in the current menu using the four function and selection keys arranged below the LC display field. Each function and parameter displayed in the LCD is executed or selected by the corresponding key below, respectively. Usually two parameter groups are combined at one level. In the following example, these are the **LPI** and **Skip** parameter groups.

If you do not wish to change one of the two parameters you can either press the **Next** key (to access the two following parameter groups in the menu), or you can press the **Back** key (to access the two previous parameter groups in the menu).

If you want to change a setting, (e.g. the line density), then press the **LPI** key (LPI = lines per inch) to access the actual parameter level.

The currently valid setting is marked by a * (in the example below the current setting is 6 lpi). With the **<** and **>** keys you can view the other parameters available for this setting.

Example:



Save settings

Once the desired parameter is displayed on the LC display, you can save it by pressing the **Set** key. The parameter is then set and the printer automatically displays the parameter groups again. With the **Exit** key you can leave the sublevel without saving your changes.

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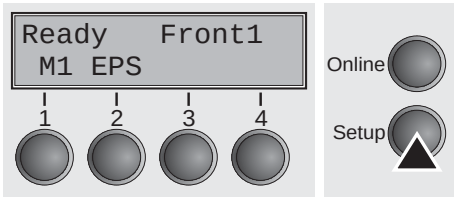
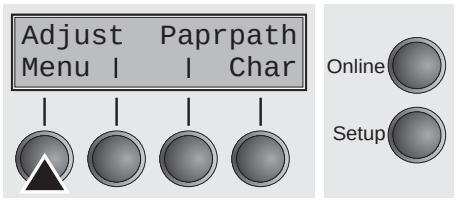
Selecting the LC display language

This section describes how to make settings in the menu, using the selection of the national language as an example.

This example shows how to change from the English language to the German language. The same procedure applies to the other languages (French, Italian and Spanish).

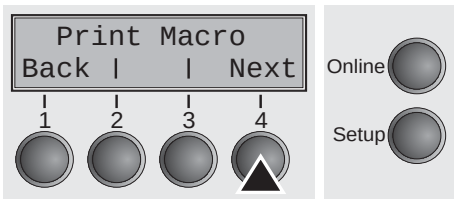


Select the **Setup** mode by pressing the **Setup** key.

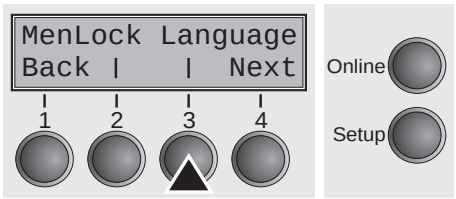


Press the **Menu** key (1).

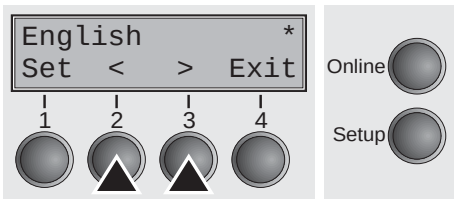
Setup mode and Menu mode may be disabled. Hold down the Setup **key while switching on the printer to enable menu mode. If you want to enable access to this mode permanently, you need to change the appropriate setting in the menu; see** *Menu lock (MenLock) (page 66)***.**



Press the **Next** key (4) several times until the display indicates **Language**.

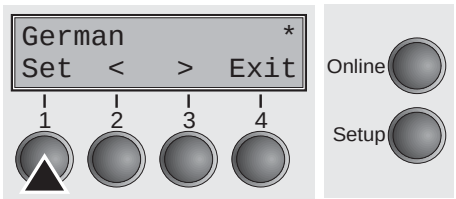


Press the **Language** key (3).



The display now changes to Parameter mode and indicates **English** in the top line.

The lower line displays **Set** and **Exit**. The two arrows **<** (2) and **>** (3) represent the symbols for parameter selection ("**<**" indicates descending and "**>**" ascending). Press the **<** (2) or **>** (3) key until the desired language is displayed, in our example **German**.



Save your selection by pressing the **Set** key (1). An acoustic signal verifies this action.

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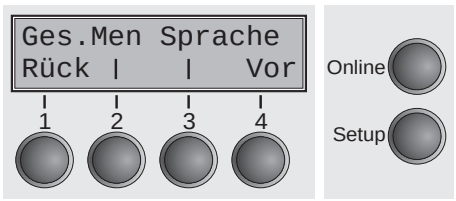

You can exit Parameter mode without saving a setting by pressing the **Exit** key (4), the old setting is retained.
After saving your setting (**Set**), the display in our example indicates the following text:

This setting is retained even after switching off your printer.

Terminating Setup mode

Press either the **Setup** key to change into Offline mode (**Pause**) or the **Online** key to change to Online mode (**Ready**).

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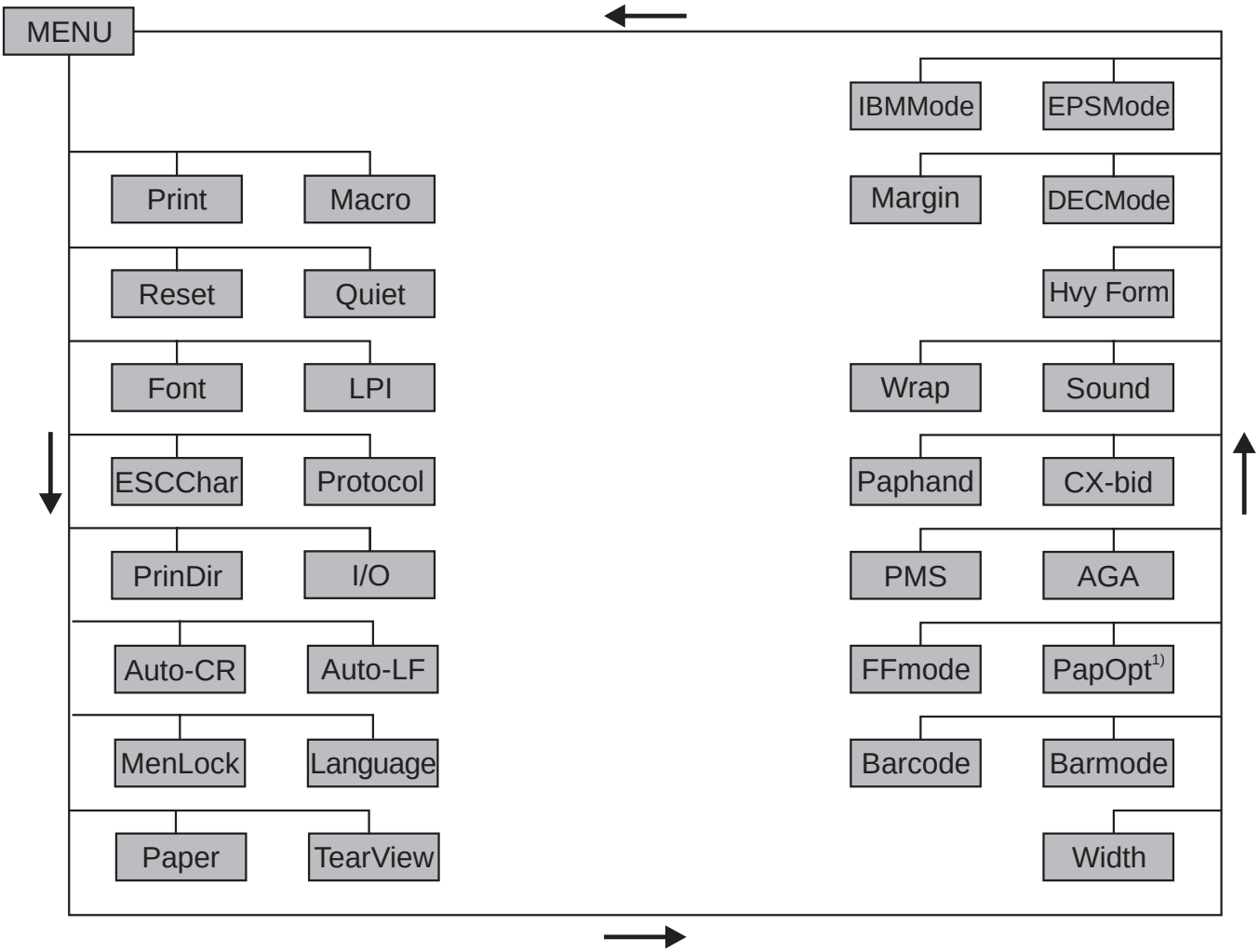
Menu structure

The menu structure of your printer may be slightly different from the example shown here, depending on the printer software.



1) only with installed optional paperway

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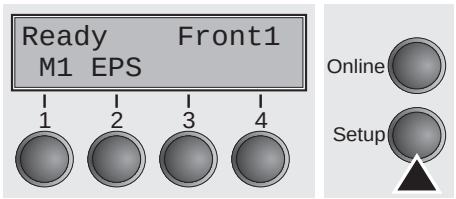
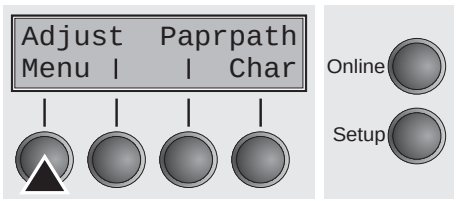
Menu parameters

The following section introduces and explains all the possible menu settings.



Press **Setup** key.

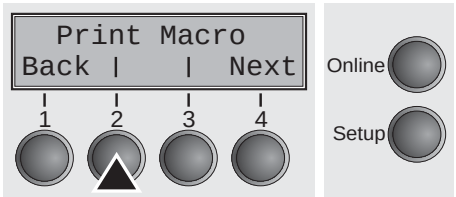


Press **Menu** (1) key.

Setup mode and Menu mode may be disabled. Hold down the Setup **key while switching on the printer to enable menu mode. If you want to enable access to this mode permanently, you need to change the appropriate setting in the macro; see** *Menu lock (MenLock) (page 66)***.**

Printing out macro configurations (Print)

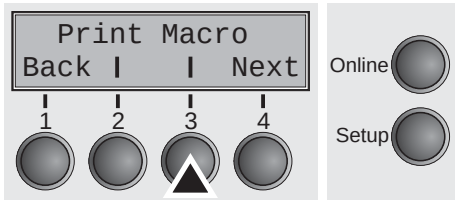
Prints the menu configurations using the active paper feed; see *Menu settings (example) (page 99)*.



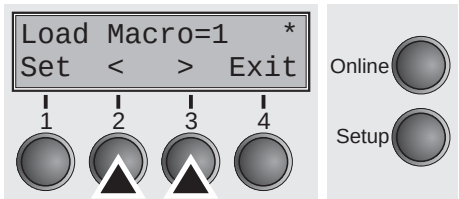
Press **Print** (2) key, to start the printout.

Loading menu configurations (Macro)

A menu is loaded, you can choose between four menus; see *Menu handling (page 47)*.



Press **Macro** (3) key.



Use the **<** (2) or **>** (3) key to select the desired setting.

Setting Options: **Load Macro=1/2/3/4**
Default Setting: **Load Macro=1**

Confirm the setting by pressing the **Set** key (1). Press the **Next** key (4) to access the next group of parameters.

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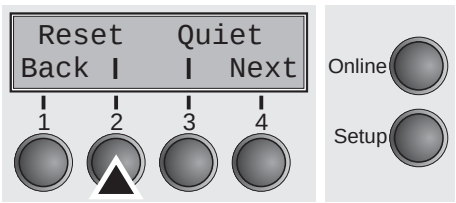
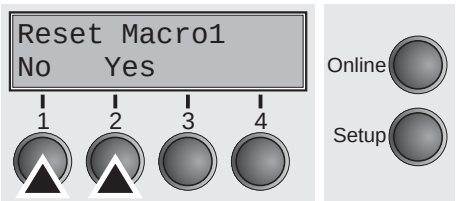
Reset to default values (Reset)

The current macro returns to the default values (factory settings).



Press **Reset** (2) key.



Press the **No** (1) or **Yes** (2) key to select the desired setting.

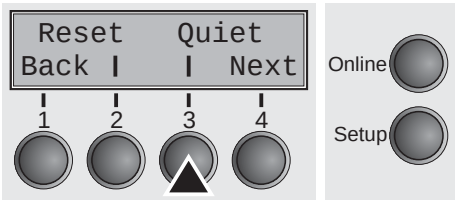
STOP

All manually altered settings in the current menu are lost when it is reset to the default settings.
We therefore recommend that you print out the menu first.

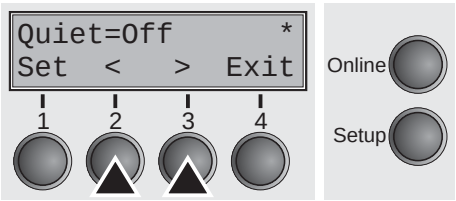
Confirm the setting by pressing the **Set** key (1).

Quiet mode printing (Quiet)

Switches between normal and quiet mode printing. For all printing modes, the print-out is made with the bidirectional method in quiet mode printing. In the first step the first row of pins is activated, during the second step the second row is used.



Press **Quiet** (3) key.



Use the **<** (2) or **>** (3) key to select the desired setting.

Setting Options: **Off/On**
Default Setting: **Off**

Confirm the setting by pressing the **Set** key (1). Press the **Next** key (4) to access the next group of parameters.

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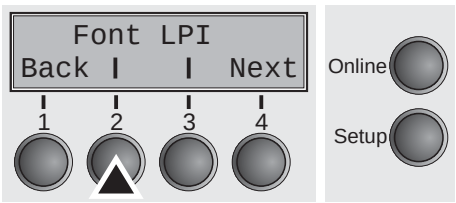
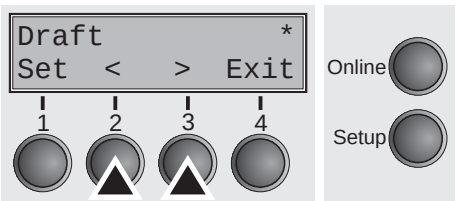
Selecting font (Font)

This parameter selects the character style and its quality permanently.



Press **Font** (2) key.



Use the **<** (2) or **>** (3) key to select the desired setting.

Setting Options: see table below
Default Setting: **Draft**

Character styles marked with an **I** (for example **Courier I LQ**) are IBM compatible fonts.

Fonts with the identifier PS in their name are proportional fonts which use only the space actually required for the character width.

Example:

Roman LQ: Willi

Roman PS LQ: Willi

The abbreviation NLQ stands for Near Letter print quality, which means that the printer works faster but with a slightly lower resolution. LQ stands for Letter Quality, which means that the resolution is higher at the expense of a slightly slower speed.

Available fonts		
Draft	S Serif PS LQ	OCR-A NLQ
Draft Copy	Courier NLQ	OCR-A LQ
Roman NLQ	Courier LQ	Courier I NLQ
Roman LQ	Prestige NLQ	Courier I LQ
Roman PS NLQ	Prestige LQ	Cour I PS NLQ
Roman PS LQ	Script NLQ	Cour I PS LQ
Sans Serif NLQ	Script LQ	Orator NLQ
Sans Serif LQ	OCR-B NLQ	Orator LQ
S Serif PS NLQ	OCR-B LQ	High Speed

Confirm the setting by pressing the **Set** key (1).

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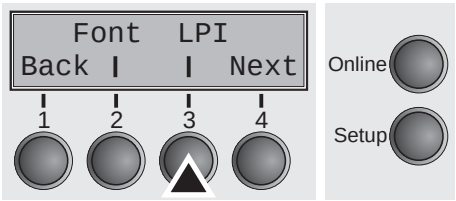
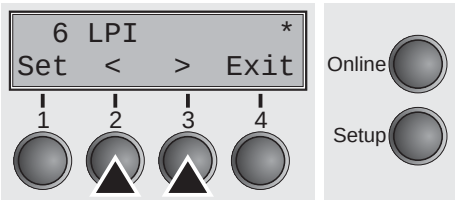
Setting line spacing (LPI)

Sets the lines per inch (line density). The higher the parameter the smaller the line spacing (random LPI can be selected via the ESC sequences).



Press **LPI** (2) key.



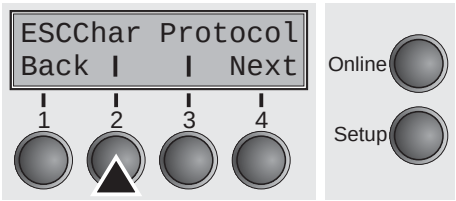
Use the **<** (2) or **>** (3) key to select the desired setting.

Setting Options: **2 LPI, 3 LPI, 4 LPI, 6 LPI*, 8 LPI, 12 LPI**
Default Setting: **6 LPI**

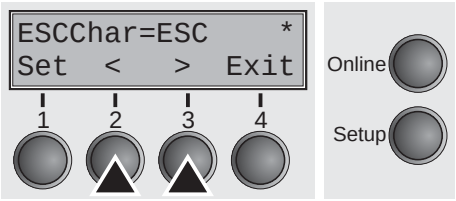
Confirm the setting by pressing the **Set** key (1). Press the **Next** key (4) to access the next group of parameters.

Selecting start signal for escape sequence (ESC-Char)

Selects the start signal for control sequences. Setting ESC: Only character Escape (27d, 1Bh) can be used. Setting ESC+$$: Character Escape or alternatively two $ characters ($$) can be used.



Press **ESCChar** (2) key.



Use the **<** (2) or **>** (3) key to select the desired setting.

Setting Options: **ESC/ESC+$$**
Default Setting: **ESC**

Confirm the setting by pressing the **Set** key (1).

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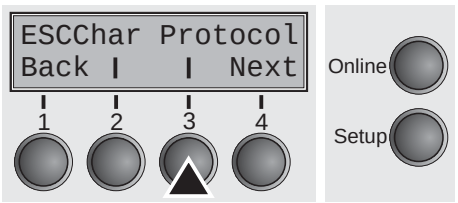
Selecting Protocol (emulation)

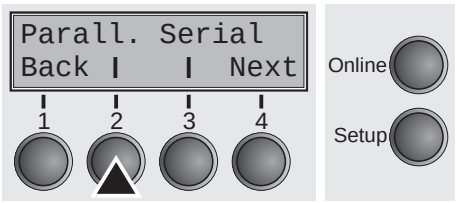
Selects the emulation for the serial or parallel interface. When a printer understands the control set written for another printer type, it is said to emulate the other printer.

The selected emulation of the active interface is shown in on-line or offline mode in the second line of the printers display. For more information refer to *Online mode* (page 28)

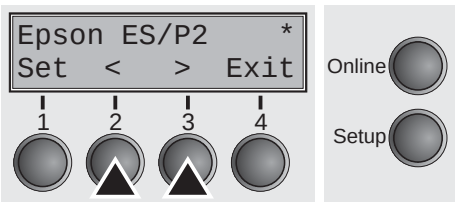
MTPL is also active in IBM or Epson emulation mode.



Press **Protocol** (3) key.



Press **Parall.** (2) if you want to select a emulation for the parallel interface or **Serial** (3) if you want to select a emulation for the serial interface of the printer (in our example: **Parall.**).



Use the **<** (2) or **>** (3) key to select the desired setting.

Setting Options: **DEC PPL2, Epson ESC/P2, IBM XL24, IBM XL24+AGM,**

Default Setting: **Epson ESC/P2 (Parall.)** **DEC PPL2 (Serial)**

If the printer is switched to online mode after changing the emulation, it performs a reset.

Confirm the setting by pressing the **Set** key (1). Press the **Next** key (4) to access the next group of parameters.

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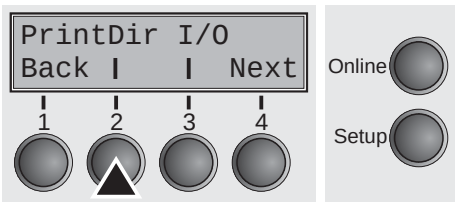
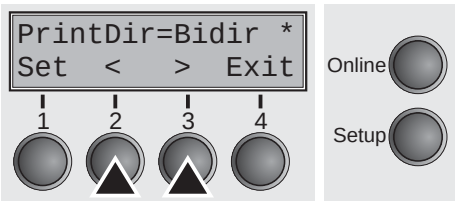
Bidirectional printing (PrintDir)

Selects if the printer prints in both directions (bidirectional) or only in one direction (unidirectional from left to right).



Press **PrintDir** (2) key.



Use the **<** (2) or **>** (3) key to select the desired setting.

Setting Options: **Bidir/Unidir**
Default Setting: **Bidir**

Normal internal characters will be printed always bidirectional, whereas graphic, semigraphic, large characters (LCP) and bar-codes are printed depending on the setting of PrintDir**.**

Confirm the setting by pressing the **Set** key (1).

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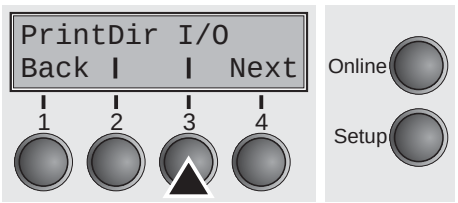
Settings for interfaces (I/O)

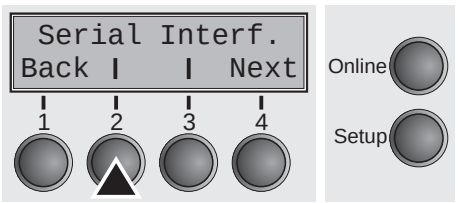
In this parameter group, you can choose various settings for the printer interfaces. See also *Interfaces (page 133)*.



Press **I/O** (3) key.

Serial interface (Serial)

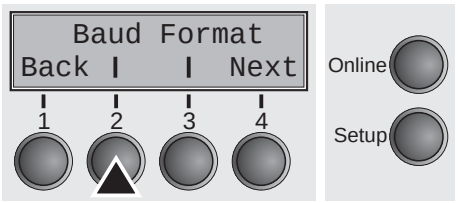
To ensure the proper functioning of serial data transfers, the serial settings of the printer and computer (host) must coincide.



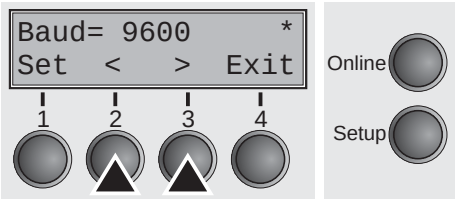
Press **Serial** (2) key.

Data transmssion rate (Baud)

Selects the data transmission rate (baud rate) (baud = bit per second).



Press **Baud** (2) key.



Use the **<** (2) or **>** (3) key to select the desired setting.

Setting Options: **600, 1200, 2400, 4800, 9600, 19200**
Default Setting: **9600**

Printer and computer must have the same baud rate.

Confirm the setting by pressing the **Set** key (1).

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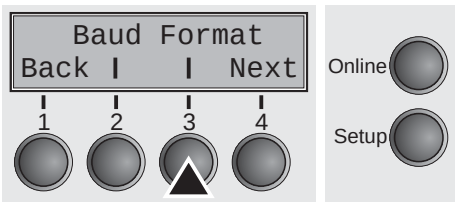
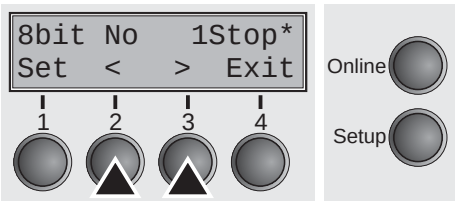
Data format (Format)

This parameter serves to define the number of data bits, the parity check for received data bytes and the number of stop bits per data byte.



Press **Format** (3) key.



Use the **<** (2) or **>** (3) key to select the desired setting.

Setting Options: see table below
Default Setting: **8 Bit No 1 Stop**

1 number of data bits	2 parity test	3 number of stop bits
8 Bit	No	1 Stop
8 Bit	No	2 Stop
8 Bit	Even	1 Stop
8 Bit	Odd	1 Stop
8 Bit	Mark	1 Stop
8 Bit	Spc	1 Stop
7 Bit	No	2 Stop
7 Bit	Even	1 Stop
7 Bit	Odd	1 Stop
7 Bit	Even	2 Stop
7 Bit	Odd	2 Stop
7 Bit	Mark	1 Stop
7 Bit	Spc	1 Stop
7 Bit	Mark	2 Stop
7 Bit	Spc	2 Stop

1 Sets the number of data bits: You can select 7 or 8.

2 The parity test for received data bytes can be selected. **NO** causes transmission in both directions without parity bit. If **EVEN** or **ODD** is selected, the bytes are checked if they have even or odd parity. The selection of **MARK** or **SPACE** causes a data byte transmission with parity bit, but without checking the received data. Transmission data with parity bit is always marked with **1** (**MARK**) or **0** (**SPACE**).

3 Selects one or two stop bits per data byte.

Confirm the setting by pressing the **Set** key (1). Press the **Next** key (4) to access the next group of parameters.

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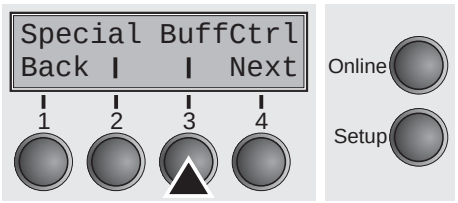
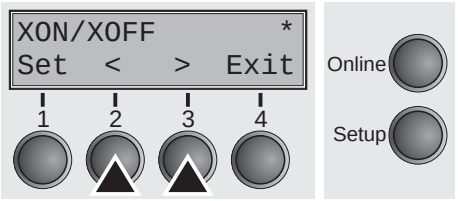
Buffer control (BuffCtrl)

This parameter serves to select the type of protocol, i.e. a certain set of rules and procedures for ensuring error-free data exchanges between computer and printer. Details of the available protocols can be found in the section *Protocols (page 139)*.



Press **BuffCtrl** (3) key.



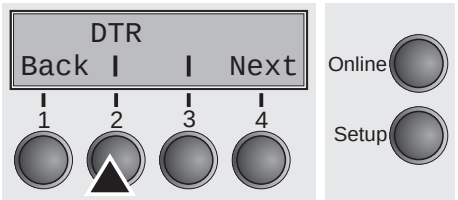
Use the **<** (2) or **>** (3) key to select the desired setting.

Setting Options: **XON/XOFF, Robust XON/XOFF,**
Default Setting: **XON/XOFF**

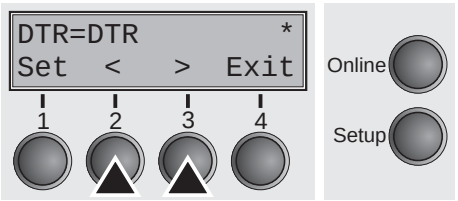
Confirm the setting by pressing the **Set** key (1). Press the **Next** key (4) to access the next group of parameters.

Signal Processing (DTR)

Defines the conductor to which the DTR signal is connected (DTR = **D**ata **T**erminal **R**eady).



Press **DTR** (2) key.



Use the **<** (2) or **>** (3) key to select the desired setting.

Setting Options: **DTR/READY**
Default Setting: **DTR**

DTR=DTR: DTR signal is assigned to DTR line.
DTR=READY: READY signal is assigned to DTR line.

DTR = Pin 20 on 25-pin female V.24 connector.
DTR = Pin 4 on 9-pin female V.24 connector.

Confirm the setting by pressing the **Set** key (1). Press the **Next** key (4) to access the next group of parameters.

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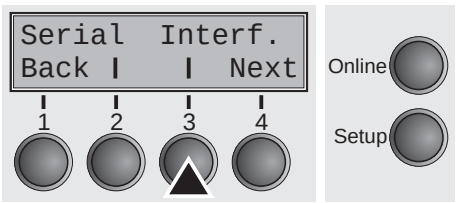
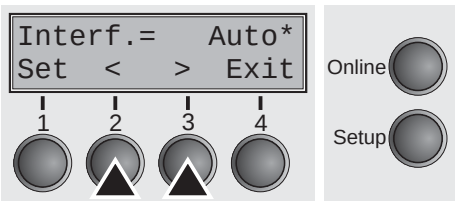
Selecting interface (Interf.)

Selects the interface. Printer is configured either for parallel, Ethernet or serial connection or in automatic change for both (**Auto**).



Press **Interf**. (3) key.



Use the **<** (2) or **>** (3) key to select the desired setting.

Setting Options: **Auto**, **Parallel**, **Serial**
Default Setting: **Auto**

Interf.=Auto: Printer switches automatically between parallel and serial interface.

Interf.=Parallel: Printer using parallel interface.

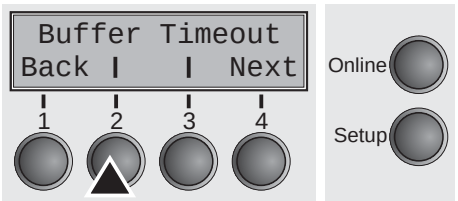
Interf.=Parallel: Printer using parallel interface.

Interf.=Serial: Printer using serial interface.

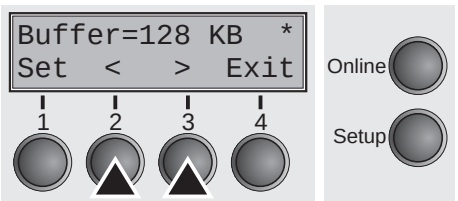
Confirm the setting by pressing the **Set** key (1). Press the **Next** key (4) to access the next group of parameters.

Interface buffer (Buffer)

Selects the size of the interface buffer.



Press **Buffer** (2) key.



Use the **<** (2) or **>** (3) key to select the desired setting.

Setting Options: **0**, **16, 32, 48, 64, 80, 96, 112, 128 KB**
Default Setting: **128 KB**

If buffer = 0 KB and the serial interface is selected, or if the setting Auto **is active, the actual buffer size will be 512 bytes.**

Confirm the setting by pressing the **Set** key (1). Press the **Next** key (4) to leave the parameter group **Interf.**. Press the **Next** key (4) again to access the next group of parameters.

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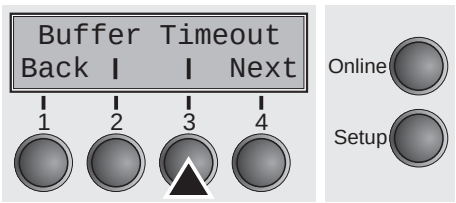
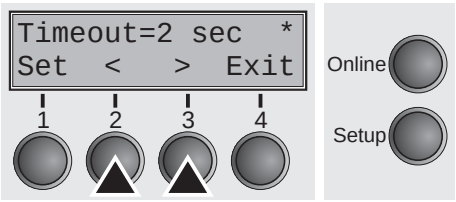
Selecting interface timeout (Timeout)

The Timout option allows you to define the duration after which the interface switches back to the Stand-by state, when the printer stops receiving data.



Press **Timeout** (3) key.



Use the **<** (2) or **>** (3) key to select the desired setting.

Setting Options: **2 sec ... 30 sec**
Default Setting: **2 sec**

Confirm the setting by pressing the **Set** key (1). Press the **Next** key (4) to access the next group of parameters.

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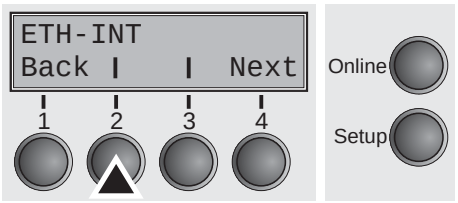
Ethernet interface (ETH-INT)

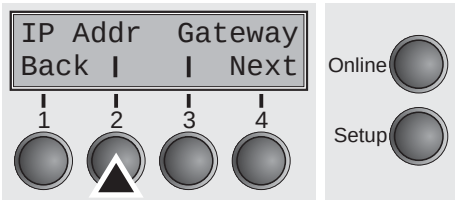
In this parameter group you can choose settings for the internal Ethernet interface.



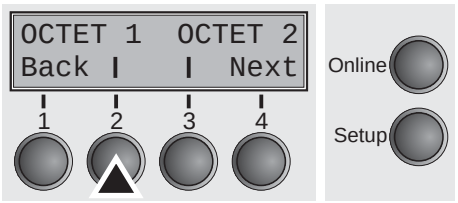
Press **ETH-INT** (2) key.

Setting IP address (IP Addr)

Input of the IP address of the printer.

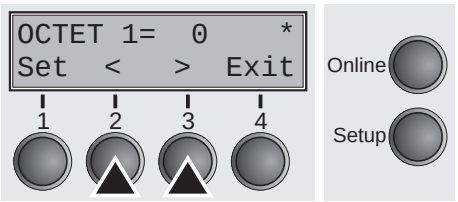


Press **IP Addr** (2) key.



This menu level offers the possibility to set the IP address, which is divided into four digit groups (octet 1 to 4). You can activate octet 3 and 4 by pressing the **Next** (2) key.

Press **OCTET 1** (1) key.



Use the **<** (2) or **>** (3) key to select the desired digit.

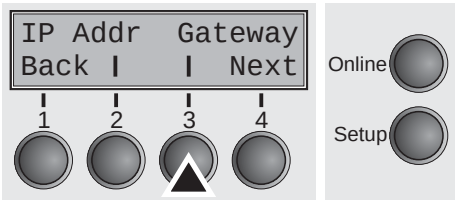
Setting Options: **0 to 255**
Default Setting: **0**

Confirm the setting by pressing the **Set** key (1).

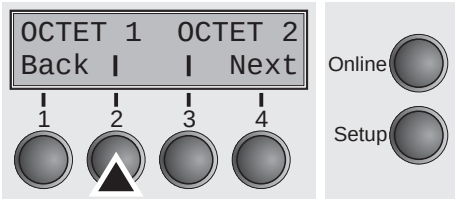
Set the remaining three digit groups in the same way.

Setting Gateway address (Gateway)

Input of the Gateway address of the printer.



Press **Gateway** (3) key.



This menu level offers the possibility to set the IP address, which is divided into four digit groups (octet 1 to 4). You can activate octet 3 and 4 by pressing the **Next** (2) key.

Press **OCTET 1** (1) key.

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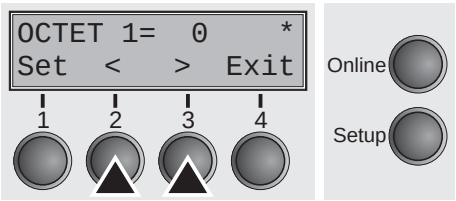


Use the **<** (2) or **>** (3) key to select the desired digit.

Setting Options: **0 to 255**
Default Setting: **0**

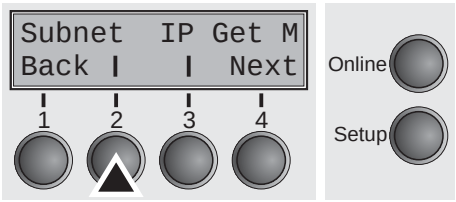
Confirm the setting by pressing the **Set** key (1).

Set the remaining three digit groups in the same way.

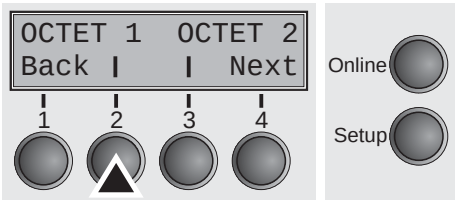
Press the **Next** key (4) to access the next group of parameters.

Setting Subnet mask (Subnet)

Input of the Subnet mask address of the printer.

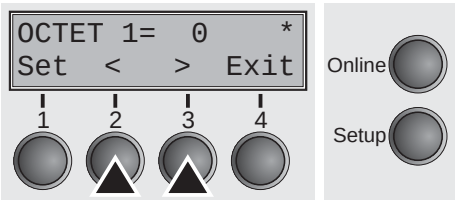


Press **Subnet** (2) key.



This menu level offers the possibility to set the IP address, which is divided into four digit groups (octet 1 to 4). You can activate octet 3 and 4 by pressing the **Next** (2) key.

Press **OCTET 1** (1) key.



Use the **<** (2) or **>** (3) key to select the desired digit.

Setting Options: **0 to 255**
Default Setting: **0**

Confirm the setting by pressing the **Set** key (1).

Set the remaining three digit groups in the same way.

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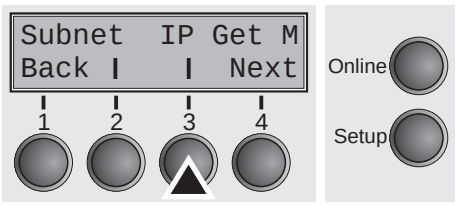
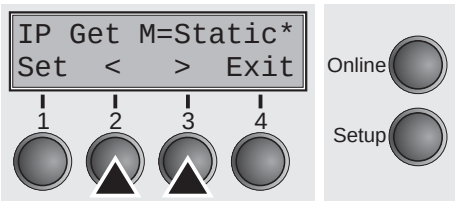
IP address administration (IP Get M)

Selects the way of administrating the IP address.



Press **IP Get M** (3) key.



Use the **<** (2) or **>** (3) key to select the desired setting.

Setting Options: **Static, DHCP, BOOTP**
Default Setting: **Static**

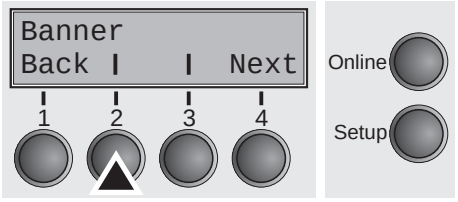
Confirm the setting by pressing the **Set** key (1).

The setting Static is the precondition that the values entered in the parameter IP Addr **become valid (see** *Setting IP address (IP Addr)* **(page 62). For further informations, refer to the** *Web Panel Manual* **on the Online-CD-ROM.**

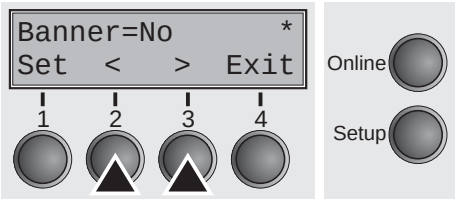
Press the **Next** key (4) to access the next group of parameters.

Banner page (Banner)

Specifies whether a banner page is to be printed out, when using the LPD/LPR protocol.



Press **Banner** (2) key.



Use the **<** (2) or **>** (3) key to select the desired setting.

Setting Options: **Yes/No**
Default Setting: **No**

Yes: When using the LPD/LPR protocol a banner page will be printed out in front of every print job, containing the file name and the print queue name. The width of the banner page is 8".

Confirm the setting by pressing the **Set** key (1).

Press the **Next** key (4) to leave the parameter group **Interf.**. Press the **Next** key (4) again to access the next group of parameters.

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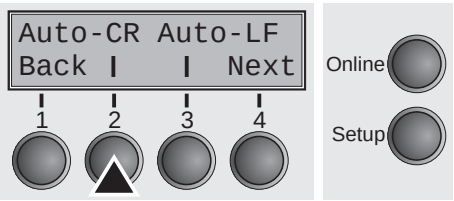
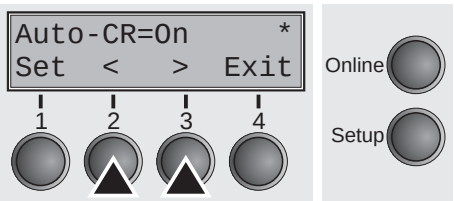
Automatic carriage return (Auto-CR)

Switches the automatic carriage return on or off after receiving the signal LF (line feed).



Press **Auto-CR** (2) key.



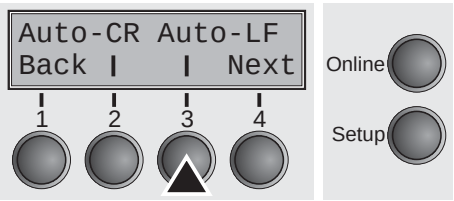
Use the **<** (2) or **>** (3) key to select the desired setting.

Setting Options: **Off/On**
Default Setting: **On**

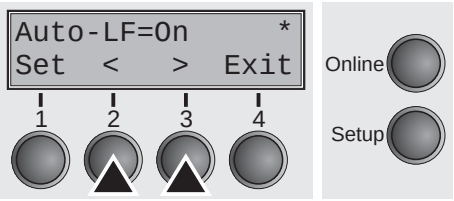
Confirm the setting by pressing the **Set** key (1).

Automatic line feed (Auto-LF)

Switches the automatic line feed (LF) on or off after receiving the signal CR (carriage return).



Press **Auto-LF** (3) key.



Use the **<** (2) or **>** (3) key to select the desired setting.

Setting Options: **Off/On**
Default Setting: **Off**

Confirm the setting by pressing the **Set** key (1). Press the **Next** key (4) to access the next group of parameters.

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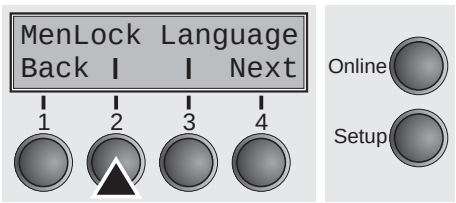
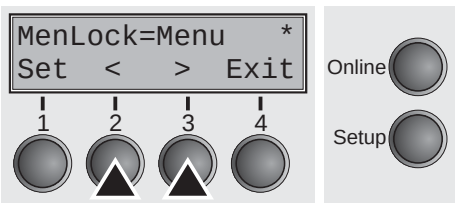
Menu lock (MenLock)

With **MenLock = Off**, all functions and settings are accessible without restriction in Online, Offline and Setup mode.
If **MenLock = Menu** is activated, all functions and settings are still accessible in Online and Offline mode, however, in Setup mode you can only access the parameter groups **Adjust** (setting the print head gap [**Head**], top of form [**TOF**] and tear position [**Tear**]), **Paprpath** (setting the paper path), **Font** (setting the font) and the character spacing (**CPI**), while access to Menu mode (**Menu** key) is disabled.
If you select **MenLock = All**, you can access the Online/Offline, Load/Park, Paper and Paper Feed (LineFeed/Form Feed, ▲/▼) functions in Online and Offline mode while Setup mode is disabled. In this case, the Setup menu can only be called up by holding the key **Setup** while switching on the printer.



Press **MenLock** (2) key.



Use the **<** (2) or **>** (3) key to select the desired setting.

Setting Options: **Off, Menu, All**
Default Setting: **Off**

Confirm the setting by pressing the **Set** key (1).

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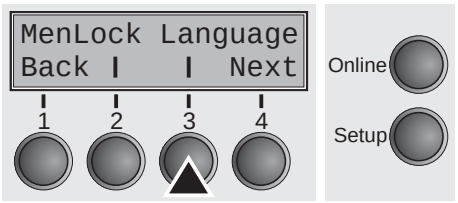
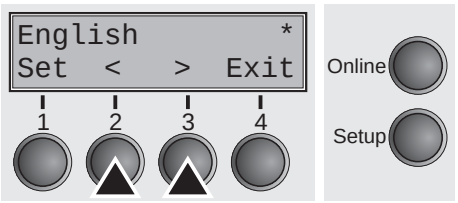
Language (Language)

The menu can be shown in five languages on the LC display.



Press **Language** (3) key.



Use the **<** (2) or **>** (3) key to select the desired setting.

Setting Options: **English**, **German**, **French**, **Italian**, **Spanish**

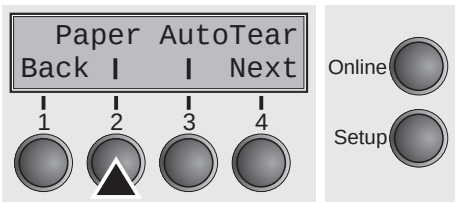
Default Setting: **English**

Confirm the setting by pressing the **Set** key (1). Press the **Next** key (4) to access the next group of parameters.

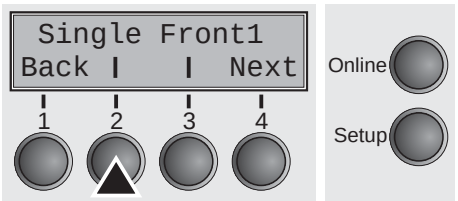
Paper parameters (Paper)

Selects the paper parameters **Formlen** (form length), **FormAdj** (first printing position) and **Head** (print head gap, only if **AGA=Off**) separately for each paper source in the current menu.

Only installed options can be selected.



Press **Paper** (2) key.



You can now choose between the following paper options:

- Single
- Front1 (tractor 1)
- Front2 (tractor 2 front, option)

Select the desired paperway, in our example **Single** (2). Press **Next** (4) key, to proceed to the installed optional paperways.

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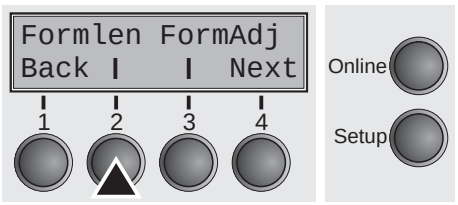
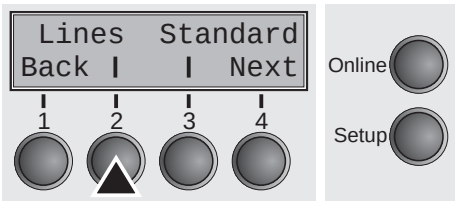
Form length (Formlen)

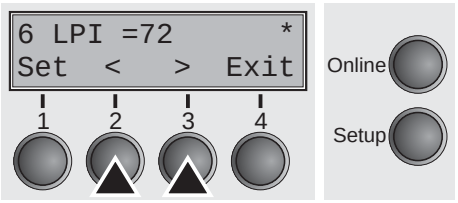
You can define the form length in one of two ways: via the number of lines or via standard formats (e.g. Letter, Legal).



Press **Formlen** (2) key.



If you wish to define the form length via a line format, press **Line** (2) key.



Use the **<** (2) or **>** (3) key to select the desired setting.

Setting Options: **6 to 132**
Default Setting: **66**

Sets the form length via line formats. Please note that the adjustment in **Lines** depends on the selected LPI. For example 8 LPI at a selected line number of 96 lines results in a formlength of 12 inches (96 lines/[8lines/inch]) = 12 inches). The selectable range is between 3 and 21 inches, i.e. for 2 LPI from 6 to 42 lines and for 12 LPI from 24 to 262 lines.

If the form length is set it will not be changed by changing the LPI later on.

Confirm the setting by pressing the **Set** key (1).

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