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# Printer

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# JP 192

## USER'S MANUAL



Olivetti Lexikon, S.p.A.  
Documentazione  
Via Jervis, 77 - 10015 Ivrea (Italia)

Printed in Italy

**Part Number 129298E**

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**The CE mark affixed to the product certifies that the product satisfies the basic quality requirements.**



Your attention is drawn to the following actions that could compromise the characteristics of the product:

- incorrect electrical supply;
- incorrect installation; incorrect or improper use, or, in any case, not in accordance with the warnings given in the User Manual supplied with the product;
- replacement of original components or accessories with others of a type not approved by the manufacturer, or carried out by unauthorized personnel.

**Use a clean, dry, lint-free cloth to clean the printer. Do NOT use alcohol, solvents or other abrasive cleaners.**

**Always disconnect the power cable plug from the electrical power supply.**

**Do not spill water or other liquids on or in the printer.**

NOTE: This equipment has been tested and found to comply with the limits for a CLASS B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

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

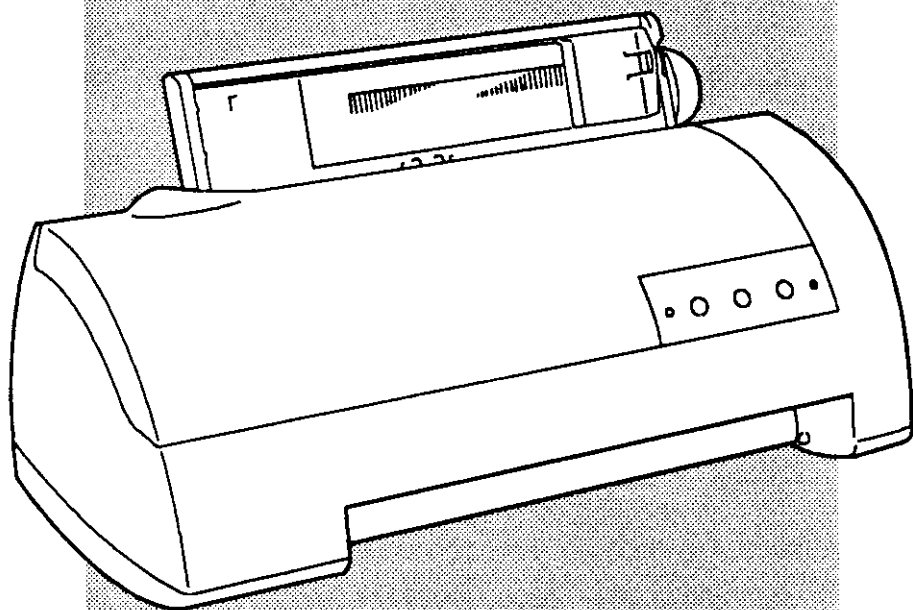
Connection of peripherals requires the use of grounded shielded signal cables.

This digital equipment does not exceed the CLASS B limits for radio noise emissions from digital apparatus set out in the interference-causing equipment standard entitled "Digital Apparatus", ICES-003 of the Industry Canada.

Ce dispositif numérique respecte les limites bruits radioélectriques applicables aux appareils numériques de CLASSE B prescrites dans la norme sur le matériel brouilleur : "Appareils Numériques", NMB-003 édictée par le ministère des Communications.

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# JP 192



This manual describes how to install your printer and prepare it for use. It also contains information on day-to-day use and care of your printer.

The initial installation procedure consists of a sequence of operations which should be performed in the order described.

You will find further information about the printer features and functions in the On-Line Help on the diskette supplied with the printer.

# Supplies and Optional Items

The following items can be ordered from your computer dealer. They are packed individually and have their own specific instructions leaflets.

## Print heads and ink cartridges

Disposable colour print head (3 pieces)	84436 G
Disposable monochrome (black) print head	84431 W
Monochrome print head with replaceable ink cartridge: blister pack containing a complete monochrome ink jet print head (outer casing with cartridge inserted) and two spare cartridges	52419 E
Blister pack containing 2 monochrome ink cartridges	84433 S
Optional photographic print head	B0203 K

## Printing media

Description	Format	Contents	Code
Plain paper	A4	500 sheets	B0187 T
Coated paper	A4	100 sheets	B0093 Y
Glossy paper	A4	20 sheets	B0035 V
Photo glossy paper	A4	20 sheets	B0090 H
Transparency film	A4	20 sheets	B0036 W
Business cards	A4	10 sheets (80 business cards)	B0177 G
Musicassette cover cards	A4	10 sheets (20 covers)	B0176 F
Greetings cards	A4	5 + 5 sheets and 5 + 5 envelopes	B0175 E
T-shirt transfers	A4	5 sheets	B0094 Z
Adhesive paper	A4	5 sheets	B0185 Z

## Optional items

Serial interface kit for EIA RS 232C/V24 interface	01306 R
Output tray	40506 Y
Photo kit for JP 192	B0204 L
Parallel interface cable	

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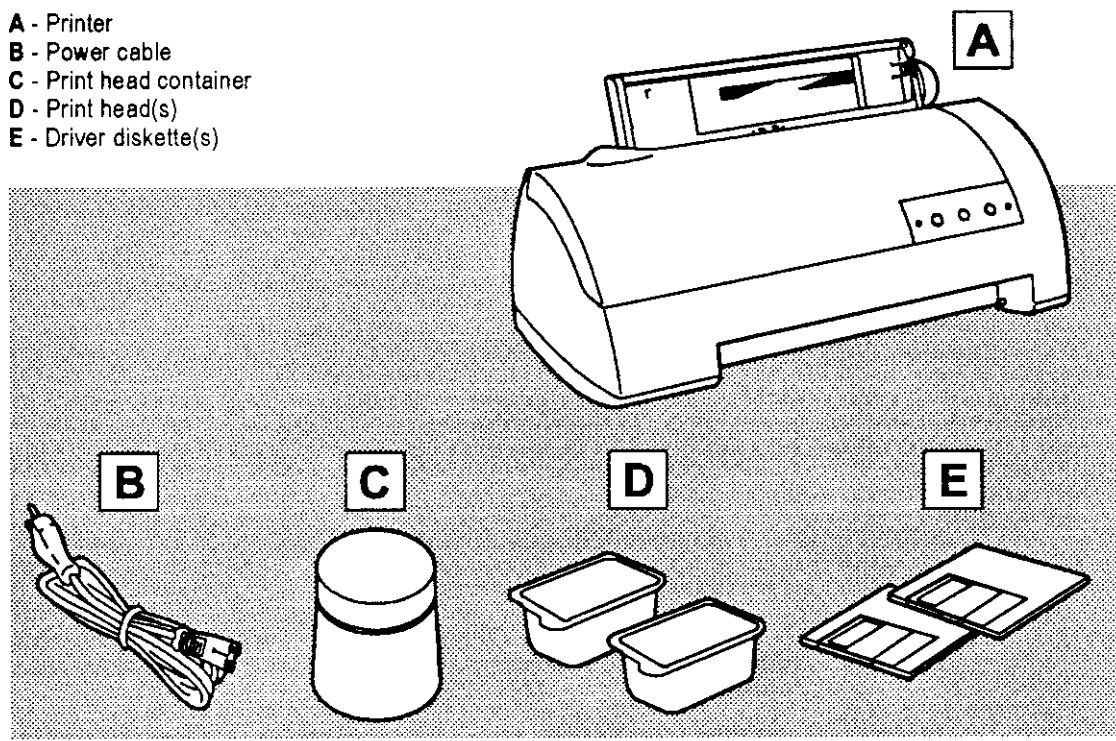
# Installation Guide

## Unpacking

Keep the carton and all the packing materials in case you have to repack or ship the printer.

As soon as you have unpacked the printer and its accessories, check that all the parts ordered have been delivered and are undamaged. As well as this instructions manual, the packing carton should also contain:

- A - Printer
- B - Power cable
- C - Print head container
- D - Print head(s)
- E - Driver diskette(s)



If anything is missing or damaged, call your local retailer immediately. The interface cable for connecting the printer to your PC is NOT supplied with the printer.

## Location

1. Place the printer on an ample, stable surface near your computer.
2. Make sure that there is enough space around the printer for all its parts to be accessed comfortably.
3. Make sure that there is a convenient independent electrical power supply socket to which you can connect the printer.
4. **Do NOT leave the printer exposed to direct sunlight or heat sources, or in dusty, dirty or poorly ventilated environments.**

# Connecting your printer

## To the electrical power supply

Your printer has no ON-OFF switch and is powered as soon as you connect it to the electrical power supply. Before plugging into the power supply socket, make sure the printer is on a stable surface, that its cover is closed and read the following warning carefully.

Make sure the electrical power supplies the voltage indicated on the electrical data plate on the base of the printer.

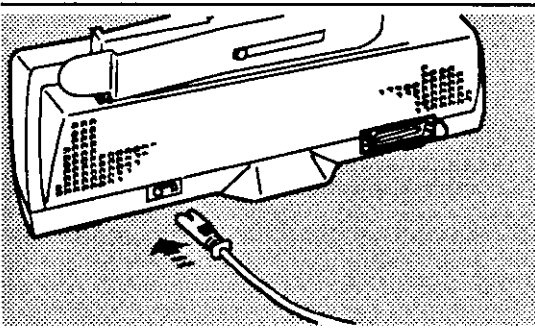
**If the electrical data plate indicates a different voltage, call your local retailer immediately. DO NOT, UNDER ANY CIRCUMSTANCES, CONNECT THE PRINTER TO THE ELECTRICAL POWER SUPPLY.**

Make sure that the plug on the power cable of the printer is of the type accepted by the wall socket you intend to use; if it is not, call your local retailer.

**Do NOT attempt to change the plug yourself.**

The manufacturer declines all responsibility for accidents to persons or damage to the printer arising from the non-observance of this warning.

1. Insert the small two-pin connector of the printer power cable in the socket on the rear of the printer.



2. Plug the other end of the cable into a wall socket.

**The socket outlet shall be installed near the equipment and shall be easily accessible.**

As soon as you plug your printer into the electrical power supply it will immediately execute a series of internal and mechanical checks and will then be in ON LINE condition (On Line and Power light indicators on the printer operator panel are lit).

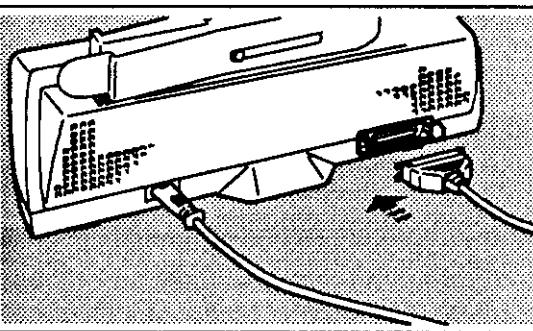
After approximately two minutes of inactivity, the printer will go into "standby" mode with the print head carriage in its rest position at the left hand margin and both light indicators off. To activate it, just press any key on the printer operator panel.

## To your computer

The interface cable is not supplied with the printer; consult your systems engineer or retailer for advice on the type of cable you require.

Make sure that your computer/host system is switched off and that the printer is not powered.

1. Plug the interface cable connector into the socket on the rear of the printer and, if necessary, close the spring clips on it.

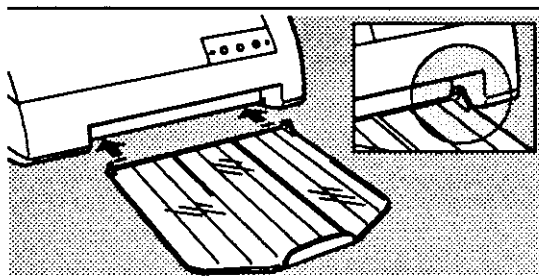


2. Connect the other end of the interface cable to the appropriate interface connector socket (port) on your computer/host system.

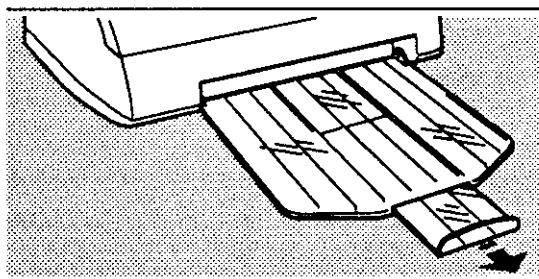
## Mounting the optional output tray

An output tray, for stacking the printed pages, is available as an option (it must be ordered separately).

1. Insert the output tray in the paper exit area on the lower front of the printer. Make sure the lateral pins of the tray fit into the corresponding holes in the printer casing.



2. Regulate the adjustable centre panel of the tray according to the paper format you intend to use. The panel contains the indications for A4, Letter (LTR) and Legal formats. The tray can contain up to 40 standard weight sheets of paper.



When using the optional output tray, you should always:

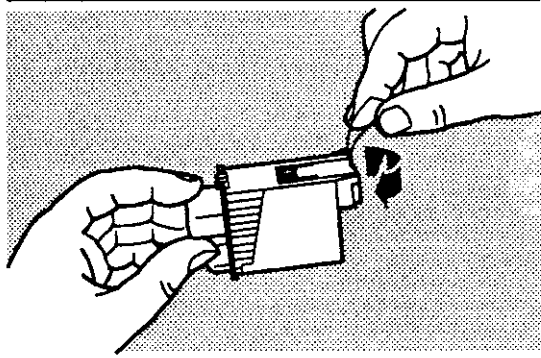
- Make sure that the output tray does not become overloaded. It can contain up to 40 standard weight printed pages.
  - Remember that heavily printed pages tend to curl and thus not stack correctly. They also tend to stain the rear of the page stacked over them, as they require longer to dry. Remove these pages from the tray as soon as they are expelled from the printer and leave them to dry singly before handling them.
- Position the printer so that the tray does NOT overlap the edge of the table or desk. ***If printer AND tray are not completely on the table, the tray will not sit correctly and the printed pages will fall off it.***



## Inserting the print head

As your printer is connected to the electrical power supply, it is already on. If, however, the light indicators are off, this means that the printer is in standby mode. Press any key on the operator panel; the light indicators will probably start flashing - do not worry, your printer is only warning you that no print head is yet inserted.

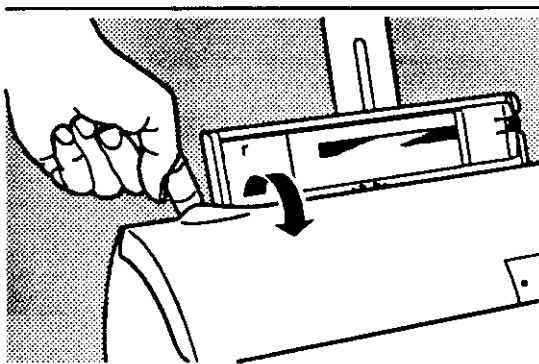
1. Open the sealed print head container and remove the print head, holding it by the thumb and finger grip (end opposite the protective film).
2. Remove the protective film.



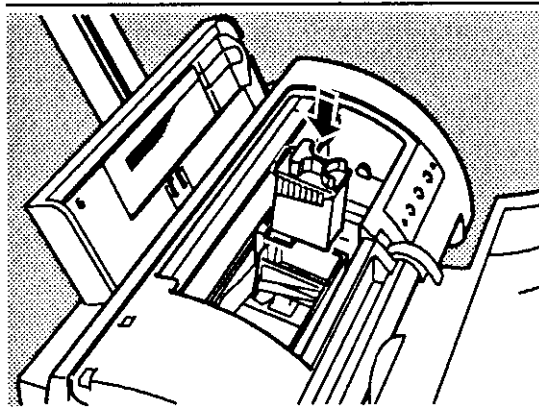
Do not touch either the electrical contacts (gold-coloured part) or the printing nozzles nor sit the print head on either of them.

3. Press **Install Cartridge** on the printer operator panel to position the print head carriage in the head loading position. The indicator lights on the printer operator panel will both start flashing. *If you do nothing for 30 seconds, the print head carriage will return to its rest position\*. To return the print head carriage to the head loading position, you must press **Install Cartridge** again.* \* The print head carriage will not return to its rest position if there is no print head inserted.

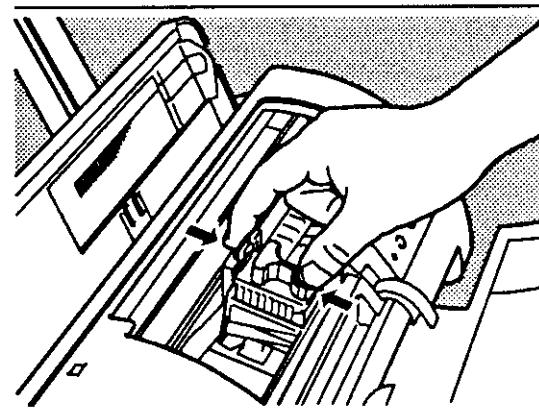
4. Open the printer cover.



5. With the electrical contacts (gold-coloured part) towards the corresponding contacts in the housing on the print head carriage, insert the print head gently into its chamber.



6. With your index finger behind the print head chamber, push the print head towards the rear of the printer with your thumb to fix it in place.



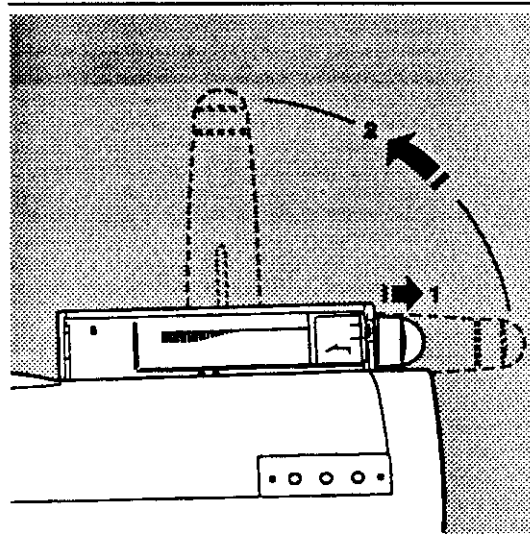
## Loading paper in the printer

7. Press **Install Cartridge** on the printer operator panel.  
The print head carriage will move to its rest position, at the left hand side of the printer.
8. Close the printer cover.

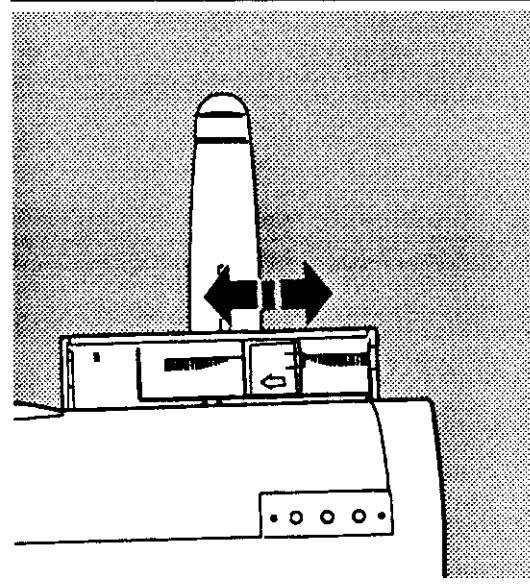
See "Replacing the print head", "Replacing the ink cartridge" and "Print head care" in the User Guide for further details on the handling, substitution and care of the print head.

Your printer is still powered, even if the light indicators are off. Press any key on the printer operator panel to activate it.

1. Pull out to the right the extendible document support on the rear of the automatic sheet feed (ASF) and rotate it up to its vertical position. The document support is optimized for standard A4 and Letter size formats.



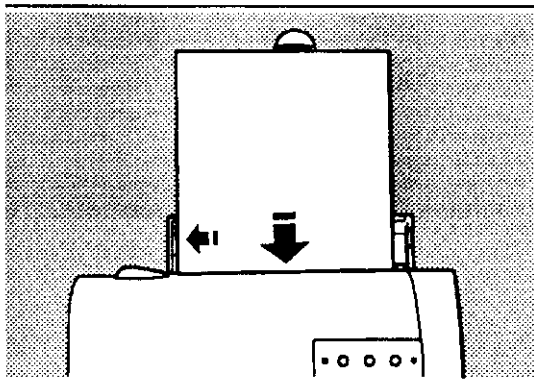
2. Gripping the tab on the edge of the right margin guide on the ASF, move it to the physical right hand margin.



3. Fan the documents thoroughly.

## Installing the printer driver

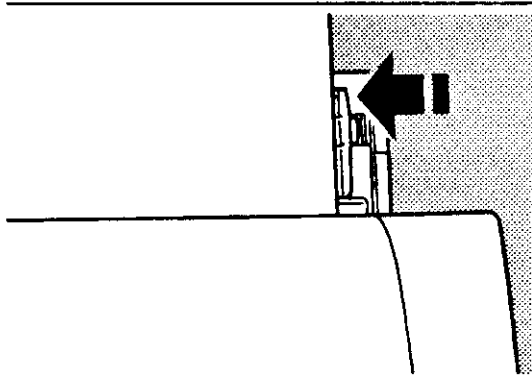
4. Align the documents against the fixed left margin and load them into the ASF, inserting them carefully until they stop inside the printer. Envelopes must be inserted with their short side as the leading edge.



The ASF contains up to 40 x 80 g/m<sup>2</sup> sheets of plain paper. For other types and sizes of documents and envelopes, see "Loading envelopes and special printing media" in the **User Guide** and the specific topic in the **On-Line Guide** loaded when you install your printer driver.

Do NOT add paper to that already in the ASF; always remove any existing paper and fan it together with the paper to be loaded.

5. Position the right guide against the right edge of the paper.



6. With the printer powered, press **Form Feed** on the printer operator panel. The first document is inserted to the first print position. Press **Form Feed** again, to make sure the document feeds smoothly through and exits from the printer without crushing or skewing.

### ☐ Before installing your printer driver

The diskette(s) supplied with your printer contain a high quality colour and monochrome **printing system** for both Windows® 3.1/3.11 and Windows® 95 environments.

This printing system includes :

- a **printer driver** which gives you access to all the printer features through easy-to-use property sheets,
- a **printer monitor** for easy access to Printing Status and Printer Care.

A **printer set-up utility** programme (CONFIG.EXE), for personalised printer settings under DOS if necessary, is also included in the diskettes.

Before installing any printer driver, we strongly recommend that you make a back-up copy of the original diskettes (according to "Terms and conditions of the user license" included with the diskettes) and then use this copy for the installation procedure. This will allow you to keep the original diskettes as masters so that, should any problem arise with the back-up copy, you can make another copy.

### ☐ System requirements

- From Windows® 3.1 up to Windows® 95,
- PC 386 or later with at least 4 MBytes of RAM,
- 4 MBytes of free disk space.

## Printer driver installation procedure

The installation procedure varies, depending on the Windows® environment installed on your PC.

### ❑ Windows® 3.1/3.11

1. Insert the printer driver diskette in drive **A** (usually of your PC).
2. Activate Windows® 3.1/3.11 (if it is already running, make sure that all Windows applications are closed before starting to install the driver; if necessary, consult your Windows® user documentation).
3. Activate the **Control Panel** in the **Main** window, clicking twice with your mouse indicator on the corresponding icons.
4. Select the **Printers** icon in the same way.
5. If the **Installed Printers** box is empty, click on **Install...**
6. If the **Installed Printers** box already contains one or more driver names, click on **Add>>**, select **Install Unlisted or Updated Printer** in the **List of Printers** and then click on **Install...**
7. Check that the **Install Driver** window already indicates the drive (usually **A**) in which you have inserted the driver diskette, otherwise click on the drive name and change it, using your PC keyboard.
8. Click on **OK**.
9. The **Add Unlisted or Updated Printer** window contains the list of drivers present on the diskette. Select the driver with your printer name and click on **OK**.
10. Your driver is now installed and your printer name appears in the **List of Printers**.
11. With your printer name highlighted, click on **Set as Default Printer** button, so that your printer will active in all your Windows® applications.
12. Check you printer connection by clicking on the **Connect...** button. By default, your printer will be connected to the **LPT1 port** which corresponds to the hardware connection of a parallel interface cable.
13. Click on the **Close** button in the **Printers** dialogue box.

A group window with the driver name will be created automatically. It allows immediate access to the Spool Manager, the Printer Monitor, the On-line Documentation and information files whenever these are required.

### ❑ Windows® 95

The Microsoft Windows® 95 operating system allows automatic installation of peripherals through the **Plug & Play** feature, a bi-directional communication and hardware recognition procedure.

1. Make sure that **both printer and PC are powered**.  
*The printer must NOT be in error mode, i.e. the indicator lights must not be flashing.*
2. Activate Microsoft Windows® 95. If already started, execute the "Shut down" command and restart your computer.
3. A window, indicating that a new peripheral has been detected (**New Hardware found** and the printer name) is displayed.  
The same window shows the **Driver from disk provided by hardware manufacturer** option already highlighted. Click the **OK** button.
4. With the **Install from Disk** window displayed, insert the driver diskette in the drive selected, specify this drive if requested and click **OK**.
5. The **Add Printer Wizard** window is displayed.  
If there are no printer drivers already installed on your system, your printer will be installed as the Default printer.  
If other printer drivers are already installed, and you wish to install the current one as the default printer, click **Yes** and then the **Finish** button. The installation of the driver files will start.
6. At the end of the installation, you will be asked to remove the diskette and restart Windows.

You can also install the printer driver using the "Add Printer" feature in **Printers** in the **Settings** folder. In this case, your printer need not be connected to your PC.

In both cases, a folder with the driver name will be created automatically in the **Programs** folder. It allows easy access at any time to the Printer Monitor, the On-line Documentation, Disinstall programme and information files whenever these are required.

## Preparing your printer using the Printer Monitor

Once you have installed the printing system from the diskette(s) supplied, you must prepare your printer by performing two of the **Printer Care** functions contained in the Printer Monitor:

1. Check the accuracy of bi-directional printing (Align).
  2. Print a demo page (Demo).
- If you work with **Windows® 3.1/3.11**, you access the Printer Monitor from your printer driver group, by double-clicking its icon.
  - If you work with **Windows® 95**, you access the Printer Monitor in either of the following ways:
    - (a) Click **Start**, highlight **Programs** and then the printer name in the sub-menu which opens.
    - (b) Click the Printer Monitor icon.

OR:

- (a) Click **Start**, highlight **Settings**, and then click **Printers** in the sub-menu which opens.
- (b) Click your printer name to highlight it.
- (c) Click your right mouse button.
- (d) Select the option **"Run the Printer Monitor"** in the menu which opens.

Then, with the Printer Monitor displayed on your PC screen, to check the **accuracy of bi-directional printing (Align)**:

1. Click the **Printer Care** tab.
2. Click the **Align** button, then follow the instructions displayed.

To print the **demo page**:

1. Check that you are still in the **Printer Care** tab of the printer monitor.
2. Click the **Demo** button, then follow the instructions displayed.

Once you have completed these two operations, you can close the printer monitor.

**Your printer is now ready for use.**

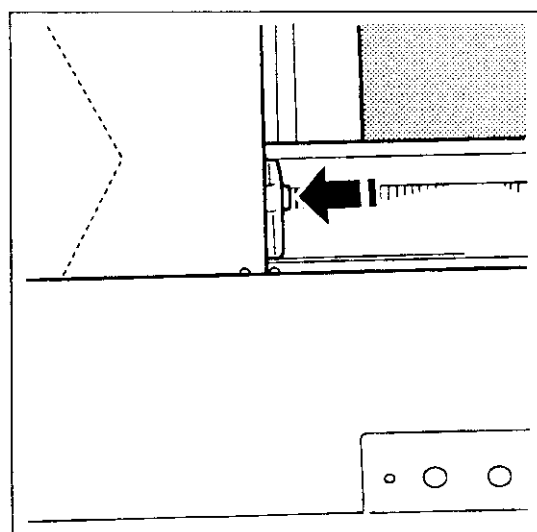
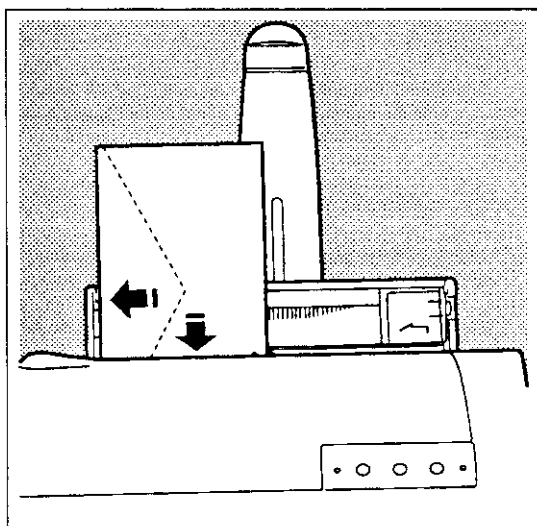
If you have problems with any operating procedure, or are unable to perform a specific function, always check that you have followed the instructions as given. If a repetition of the instructions is unsuccessful, see the appropriate section in "Troubleshooting".

# User Guide

## Loading envelopes and special printing media

### ❑ Envelopes

Envelopes should be inserted with their short side as the leading edge, the printing side face up and the sealing flap underneath. Remember to select a landscape font for printing (in Windows® environment, you will require a TrueType font).



Best results are obtained using quality bond envelopes with a weight between 75 and 100 g/m<sup>2</sup>. You can insert up to 5 envelopes at a time in the ASF.

### ❑ Special printing media

When you require top professional printing quality, you should always use printing media specifically indicated for ink jet printers. Best results are obtained with 90 to 110 g/m<sup>2</sup> documents. The printer accepts the following types of special media:

- **Coated paper**

This type of paper has a very smooth finish on the side to be used for printing.

You can insert up to 10 sheets at a time in the ASF. However, in marginal environmental conditions, you may find it necessary to insert them one at a time.

- **Glossy paper**

This type of paper has a sophisticated glossy coating, and is similar to that used in the photographic industry.

You must insert the sheets one at a time with a single sheet of plain paper as a backing.

- **Transparencies**

Always use those specifically indicated for ink jet printers; they are designed to absorb the ink correctly.

You must insert the transparencies one at a time with a single sheet of plain paper as a backing.

- **T-shirt transfers**

Always use those specifically indicated for ink jet printers; they are designed to absorb the ink correctly.

You must insert the transparencies one at a time.

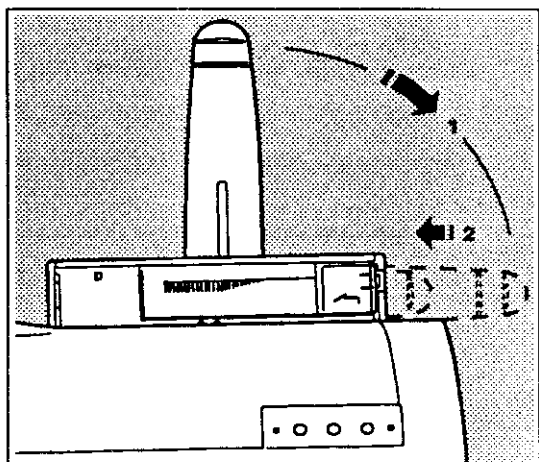
When inserting the documents for printing, make sure that the printing surface is facing the correct way (see the instructions on the paper packaging or container). Glossy paper and transparencies should have a single sheet of plain paper as a backing.

### ❑ Banners

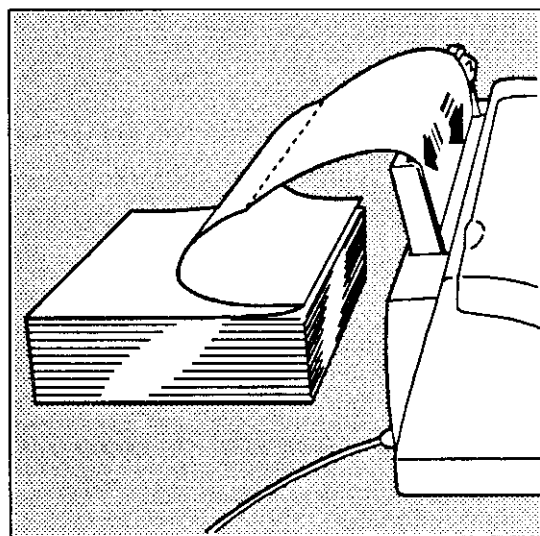
Your printer can handle banners, up to 1.5 metres (max. 5 sheets of paper), automatically, providing that the application software you are using with your PC is also able to handle them.

To load a banner in the printer, proceed as follows:

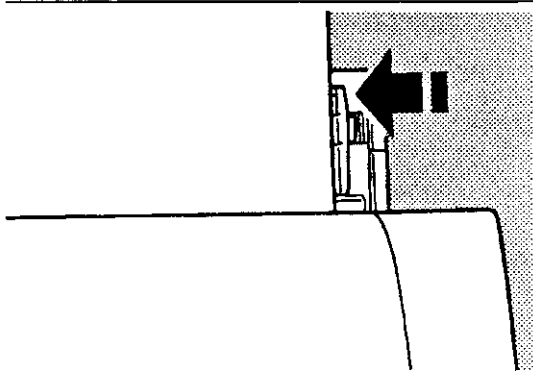
1. Close the paper support, rotating it down (1) and pushing it in to the left (2), behind the ASF.



2. Make sure that the adjustable right margin guide is at the extreme right.
3. Place the pack of paper on the table behind the printer, making sure that the leading edge of the first sheet is towards the printer.
4. Insert the first sheet in the printer until it stops, aligning it against the left hand margin.



5. Position the adjustable right margin guide against the right edge of the paper, making sure that the paper is not held too tightly nor has too much play.



See "Printer Characteristics" for the formats and dimensions of plain paper/special printing media you can use in your printer.

## Driver settings

Always make sure that you have selected in your printer driver the **Paper Source**, **Paper Type** and **Paper Format** features that correspond to the type of printing media you intend to use. In particular, the colour calibration in the driver is set specifically for each of the different types of media handled, so an incorrect setting will result in poor quality print-out.

You can access the driver settings through the **Printer Monitor**.

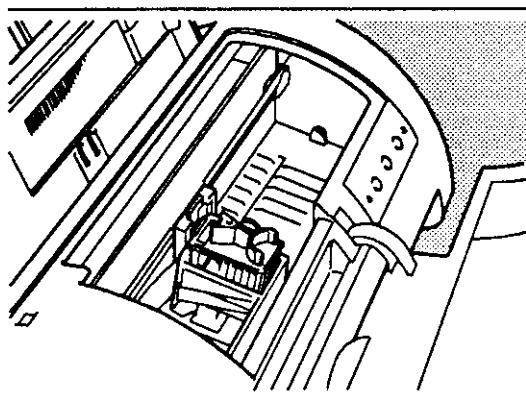
## Replacing the ink cartridge

If the print head you have inserted in your printer has a replaceable ink cartridge, the "end of ink" condition will be signalled by a warning on your PC screen, the simultaneous flashing of the two light indicators on the printer operator panel and the interruption of the printing operation.

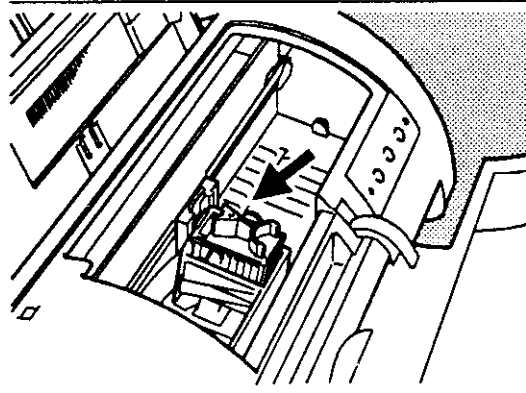
**Do not attempt to perform a print head clearing operation (CLEAN) if an empty ink cartridge has been signalled.**

To substitute the empty ink cartridge:

1. Open the printer cover.  
The print head carriage will correspond to position 3 on the template.



2. Release **ONLY** the ink cartridge from the print head casing, pulling gently to the right the lip on the print head casing; the catch on the right side of the ink cartridge will be released. Do **not** release or remove the print head casing from the print head carriage.

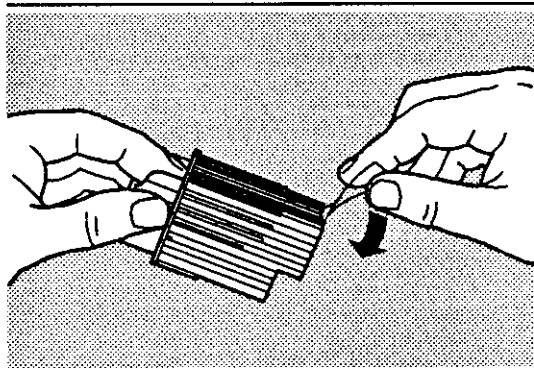


3. Remove the cartridge from the print head casing, pulling it upwards.

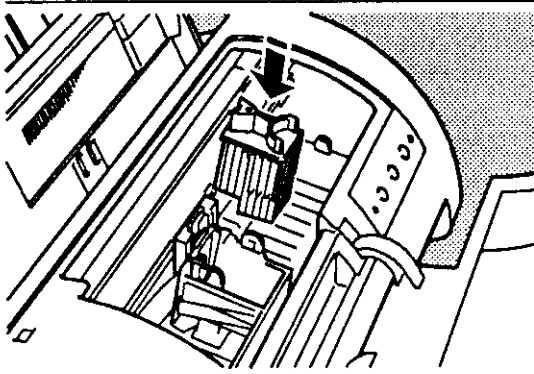


4. Remove the protective tape from the new ink cartridge.

**Do NOT touch the ink pad area on the cartridge.**



5. Insert the new cartridge in the print head casing **immediately**, pressing in until it clicks into place.





## Replacing the print head

6. Close the printer cover.

7. Press **Install Cartridge**. The print head carriage moves to its rest position.

If your printing operation was interrupted, it will now resume automatically from the point at which it stopped.

Remove the ink cartridge **ONLY** to replace it. Do **NOT** remove and then reinsert it.

If the new ink cartridge is not inserted correctly, both light indicators on the operator panel will continue to flash. You must repeat completely the replacement operation.

If the quality of printing is not optimum, do the "Clean" operation (see "Printer Monitor").

After you have replaced several ink cartridges in the same print head, you must replace the entire print head.

### □ Removing the print head

You should remove the print head only to replace it, to change from a colour to a monochrome print head or vice versa, or to repeat its insertion in the case of faulty printing.

To remove the print head, proceed as follows:

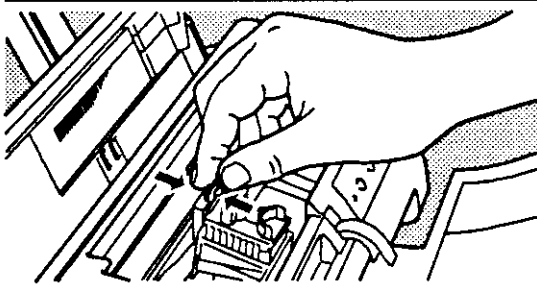
1. With the printer powered and in standby condition, press **Install Cartridge** to move the print head carriage to the head loading position (the On Line and Power light indicators start flashing simultaneously and the print head carriage moves to correspond to error condition 4 on the embossed template. This position is held for 30 seconds (60 seconds if the printer has a monochrome print head), after which the print head carriage returns to its rest position\*. To return the print head carriage to the head loading position, just press **Install Cartridge**.

\* The print head will **not** return to its rest position if no print head is inserted or if the print head is inserted incorrectly.

2. Open the top cover.

Take care not to touch the print head carriage shaft nor the area under the print head carriage.

3. Pinch together the two lips on the rear of the print head carriage (behind the print head). The print head is released.



4. Remove the entire print head, pulling it upwards by its thumb and finger grip.

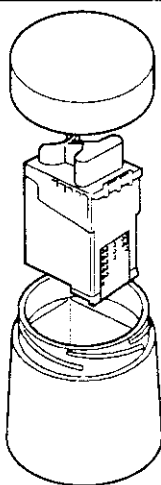


#### ❑ Inserting the print head

1. Insert a new print head (see the section "Inserting the print head" in the **Installation Guide**).

## Print head container

You should use the print head container supplied with the printer to store the print head that you have removed from the printer in order to insert a different type of print head. For example, if you wish to print a draft text in monochrome black, remove the colour print head and place it **IMMEDIATELY, AS IT IS**, in the storage container, closing the lid securely to prevent the ink drying and blocking the print nozzles. You can then insert a monochrome print head in the printer, following the print head insertion procedure described in the **Installation Guide**.



## Optional photo kit

If you wish to print photographs, you should use the special photo print head contained in the optional photo kit tailored specifically for your printer. This special print head gives an improved print quality with respect to the standard colour print head supplied with the printer.

See the section "Replacing the print head" for the print head insertion/removal procedures.

#### ❑ Print head container

The optional photo kit has its own print head container for the additional print head. When you remove the print head currently inserted in your printer, you should place it **IMMEDIATELY, AS IT IS**, in the print head container. **Do not put anything (such as tape or paper) over the print head nozzles.** After you have printed your photographs, remove the photo print head from the printer and exchange it for the print head you previously placed in the print head container.

#### ❑ Driver settings

Before starting to print, you must select the specific parameter "**Use Photo Head**" in the "Settings" tab in your printer driver. If you do not specify this parameter, when you attempt to print, your PC screen will show a warning. When you make this selection, the choice of types of paper that you can use is automatically limited to that supplied in the optional photo kit. **Always use this paper to guarantee the best print quality.**

After you have finished printing your photographs and wish to return to normal printing, remember to deselect the "**Use Photo Head**" parameter in the "Settings" tab in your printer driver once you have exchanged the print heads.

If you have problems inserting the print head or ink cartridge:

- Make sure the print head carriage is in the print head loading position.
- Check that the print head/chamber is clean and free of foreign bodies.

**NEVER** force the print head into the chamber or the ink cartridge into the print head; always remove it completely and repeat the entire insertion operation.

# Printer Monitor

The Printer Monitor is an on-screen aid with an extensive, user-friendly HELP feature. It contains a series of functions which are designed to help you during daily use of the printer. It can be viewed by clicking on the specific icon and allows you to:

- view the printer operating status on your PC screen during a print job. It indicates the proportion of the document printed and eventual error messages (**Status**),
- perform printer care functions, to maintain optimum working conditions (**Printer Care**);

## 1. Checking print accuracy (Align)

Whenever you insert a print head or ink cartridge, you should check the accuracy of bi-directional printing, to guarantee optimum printing quality. The printer monitor in your printing system makes this operation extremely easy.

Make sure your printer and PC are powered, your printing system is installed, the print head is inserted and paper is loaded.

See the instructions in *"Preparing your printer using the Printer Monitor"*.

## 2. Cleaning the print head (Clean)

If you notice a deterioration in the print quality, before changing the print head or replacing the ink cartridge, run the **"Clean"** function.

1. Click the printer monitor icon (if necessary).
2. Click the **Printer Care** tab.
3. Click the **Clean** button, then follow the instructions displayed.

## 3. Printing the "demo" page (Demo)

The demo page gives you a full colour or black monochrome print-out and allows you to check the correct functioning of the print head.

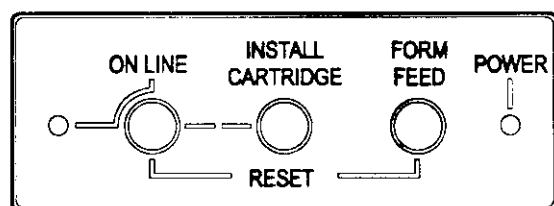
See the instructions in *"Preparing your printer using the Printer Monitor"*.

## 4. Running the print test (Test)

The print test gives you a colour or black monochrome print-out, the contents of which will vary depending on the type of print head inserted. The black monochrome print test gives a print-out of the printer functional characteristics (firmware release, print head test, current settings).

1. Click the printer monitor icon (if necessary).
2. Click the **Printer Care** tab.
3. Click the **Test** button, then follow the instructions displayed.

## Printer operator panel



The behaviour of the keys and light indicators on the operator panel will depend on the printer's status.

### □ Printer states:

- free: no data to be printed;
- busy: from the reception of data until the completion of its printing;
- standby: printer powered but dormant (more than two minutes have elapsed since last interchange with host); reduces power consumption.
- special function mode : user-invoked operating mode independent of host.

## Keys

### □ Basic functions

Function	Key	Description
Printer ready / Pause	On Line	<p>Alternates the printer ON LINE/ OFF LINE status.</p> <p>In ON LINE status, the On Line light indicator is lit and the printer can process and print data received from your computer.</p> <p>In OFF LINE (pause) status, the print head carriage is in the rest position at the physical left margin, the On Line light indicator is off and any printing operation is suspended.</p>
Print head positioning	Install Cartridge	<p>Moves the print head carriage to/from the head loading position.</p> <p>Pressed once, causes the print head carriage to move to the head loading position (position 4 on the template).</p> <p>Pressed a second time, causes the print head carriage to return to the rest position (provided that the print head is inserted correctly).</p>
Paper load / eject	Form Feed	<p>Loads/ejects a document in/from the printer.</p> <p>When pressed, causes a document to be loaded to the first print position.</p> <p>If a document is already present in the printer, causes its expulsion.</p>

## Light Indicators

### □ Special functions

Function	Key(s)	Description
Demo page	Holding On Line, press Install Cartridge (at least 2 seconds)	The demo page is printed.
Print test	Press and hold all three keys in this order: On Line, Install Cartridge, Form Feed; release them together only when both the light indicators go off, then press On Line three times	The print test is printed.
Reset	Holding On Line, press Form Feed (at least 3 seconds)	Returns the printer to its power-on condition.  If done during data transmission/printing, the information is lost.
Hex dump	Press and hold all three keys in this order: On Line, Install Cartridge, Form Feed; release them together only when both the light indicators go off, then press On Line, Form Feed and Install Cartridge, in this order.	All subsequent data transmitted to the printer will be printed in its hexadecimal format. This feature should be used only under technical guidance, as it can generate extremely long print-outs. See Troubleshooting.
Exit from Hex dump	Holding On Line, press Form Feed (at least 3 seconds)	Reset

The flashing of one or both of the light indicators signals the need for operator intervention.

Light Indicators		Meaning
On Line	Power	
lit	lit	The printer is powered and ON LINE.
off	lit	The printer is powered and OFF LINE.
flashing slowly	flashing slowly	<p>An error condition has occurred in the printer. Open the printer cover to check the position of the print head carriage with respect to the action items embossed on the inside of the cover.</p> <p>If the print head carriage indicates <b>1 CHECK PAPER</b>, there is no paper in the ASF or there is a paper jam. Load a document in the ASF or remove the jammed document.</p> <p>If the print head carriage position indicates <b>3 CHANGE INK CARTRIDGE</b>, an "ink cartridge empty" ("end of ink") condition has occurred. Replace the ink cartridge or change the entire print head.</p> <p>If the print head carriage position indicates <b>4 CHANGE PRINT HEAD</b>, there is no print head in the driver, the print head inserted is not compatible with the driver setting selected, or the Install Cartridge key has been pressed. Insert a print head, change the type of print head inserted, or replace the print head.</p> <p>After correcting the error condition, press Install Cartridge to return the print head carriage to its rest position. If there is no operator action within 30 seconds* of the error being signalled (*60 seconds for a monochrome print head), the print head carriage will return to its rest position**.</p>



## Embossed template

A template, embossed on the inside of the printer cover, illustrates the print head/ink cartridge replacement procedures and three error conditions:

Light Indicators		Meaning
On Line	Power	
flashing slowly	flashing slowly	(continued) To reread the error indication, press <b>Install Cartridge</b> . **The print head carriage will not return to its rest position if there is no print head inserted or if the print head is not inserted correctly.
flashing rapidly	flashing rapidly	Failure condition. Disconnect the printer from the electrical power supply. Make sure that the print head carriage and paper feed paths are not obstructed and then reconnect the printer. If the light indicators continue flashing rapidly, disconnect the printer and call the technical support service or your dealer.
off	off	a) The printer is standby mode (dormant), i.e. within the last two minutes, there has been no printer-host interaction nor operator action. To return the printer to its operating condition, press any key on the printer operator panel or, from your PC, send a file to be printed.  b) The printer is in the special functions mode, awaiting a key sequence to activate a specific function.  c) The printer is not powered.

### 1. CHECK PAPER

There is no paper in the ASF, or there is a paper jam.

See "Loading paper in the printer" in the **Installation Guide** for the paper loading procedure and **Troubleshooting** for information on how to clear paper jams.

### 2. NOT USED

### 3. CHANGE INK CARTRIDGE

The print head/ink cartridge requires replacing.

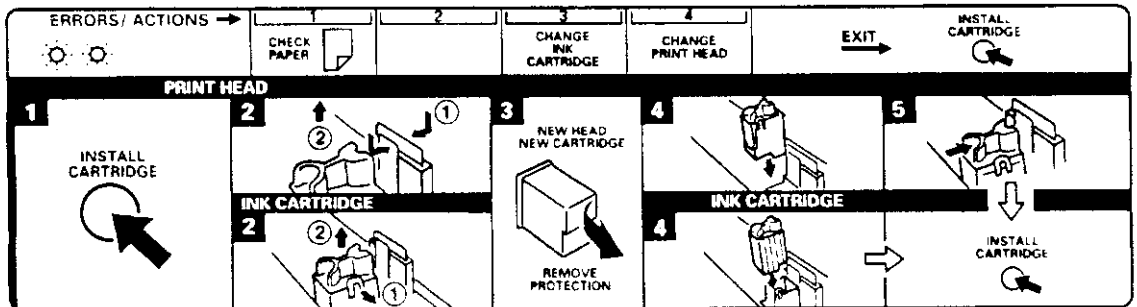
See "Inserting the print head" in the **Installation Guide** and/or "Replacing the ink cartridge" in this section for the print head/ink cartridge insertion/replacement procedures.

### 4. CHANGE PRINT HEAD

There is no print head in the printer, the type of print head you have inserted is not compatible with the printer driver settings selected, or the **Install Cartridge** key has been pressed.

Insert or exchange the print head (see "Inserting the print head" in the **Installation Guide** and/or "Replacing the print head" in this section) and/or see "Printer Monitor" and/or the **On-Line Guide** loaded with your printer driver for information on the driver settings.

If one of these error conditions occurs, any printer operation is interrupted, the On Line and Power light indicators start to flash and the print head carriage is positioned to indicate the action required.



## On-line guide

As well as the printing system, consisting of the printer driver and Printer Monitor, and the printer set-up utility, the diskette supplied with your printer also contains an **On-Line Guide** that you can consult just by clicking on the specific icon.

This On-Line Guide is structured in two parts: "How to..." and "What to do if..." that are complementary to the information contained in the **User Guide** and **Troubleshooting** sections of this manual.

The information is organised in "topics", e.g. "Paper", "Print Head", etc., and can be printed screen by screen or by topic.

If, during the daily use of your printer, you are unable to run the operation you require, first check that you have followed correctly the instructions given in the **User Guide** or the section "How to..." in the **On-Line Guide**. If, after repeating the procedure, you still have a problem, consult the specific section in **Troubleshooting** or "What to do if..." in the **On-Line Guide**.

## DOS environment

Although optimised for operation in a Windows® environment, your printer will also operate in DOS, recognising PCL III + command codes. The diskettes supplied with your printer contain a **printer set-up utility** programme (CONFIG.EXE), which allows you to personalise the printer settings.

The programmable features available through CONFIG.EXE are the following (the values indicated in **boldface** are the default settings):

Parameter (Identifier)	Value(s) (Qualifier)
PaperFormat	A4, A5, Letter, Legal, Executive, C5, C6, B5, B6, COM #10, DL
PapDev	ASF1
PerSkip	Off (no bottom margin) On (Bottom of form - BOF = 12.7 mm)
TextScale	Off On
InkSaveMode	Off On
Bimdensity	75, 100, 150, 300 (dots per inch - dpi)
Terminator	Normal (CR=CR;LF=LF;FF=FF) AutoLF (CR=CR+LF;LF=LF;FF=FF) AutoCR (CR=CR+LF;LF=LF;FF=CR+FF) AutoCRLF (CR=CR+LF;LF=LF+CR;FF=CR+FF)
Quality	LQ (Letter Quality) DRAFT (Draft)
WidthType	Off (nominal character size) HalfWidth HalfHeight HalfWidthHeight)
TypeStyle	1 - 99 (internal fonts) <b>1</b> (Courier Upright Portrait 10 cpi 12 pt) 2 (Courier Italic Portrait 10 cpi 12 pt) 3 (Courier Upright Portrait 16.6 cpi 12 pt) 4 (Letter Gothic Upright Port. 10 cpi 12 pt) 5 (Letter Gothic Upright Port. 12 cpi 12 pt) 6 (Letter Gothic Italic Port. 10 cpi 12 pt) 7 (Letter Gothic Upr. Port. 16.6 cpi 9.5 pt) 8 (Times Nordic Upright Port. PS 12 pt) 9 (Times Nordic Italic Port. PS 12 pt)



Parameter (Identifier)	Value(s) (Qualifier)
TypeStyle (internal fonts - continued)	10 (BF Times Upright Portrait PS 14 pt) 11 (BF Times Italic Portrait PS 14 pt) 12 (BF Times Upright Portrait PS 12 pt) 13 (BF Times Italic Portrait PS 12 pt) 14 (BF Times Upright Portrait PS 10 pt) 15 (BF Times Italic Portrait PS 10 pt) 16 (BF Times Upright Portrait PS 8 pt) 17 (BF Times Italic Portrait PS 8 pt) 18 (Linea Upright Portrait PS 14 pt) 19 (Linea Upright Portrait PS 12 pt) 20 (Linea Italic Portrait PS 12 pt) 21 (Linea Upright Portrait PS 10 pt) 22 (Linea Italic Portrait PS 10 pt) 23 (Linea Upright Portrait PS 8 pt) 24 (Courier Upr. Landscape 10 cpi 12 pt) 25 (Courier Italic Lands. 10 cpi 12 pt) 26 (Courier Upr. Lands. 16.6 cpi 12 pt) 27 (Letter Gothic Upr. Land. 12 cpi 12 pt) 28 (Letter Gothic Upr Land. 16.6 cpi 9.5pt)
Charset	1- CP 437 International 2 - Roman 8 3 - PC 8 Denmark/Norway 4 - CP 850 Multilingual 5 - ECMA-94 Latin 1 6 - ISO 4 - United Kingdom 7 - ISO 21 - Germany 8 - ISO 69 - France 9 - ISO 15 - Italy 10 - ISO 60 - Norway 1 11 - ISO 61 - Norway 2 12 - ISO 10 - Sweden Names 13 - ISO 11 - Sweden 14 - ISO 17 - Spain 15 - ISO 6 - ASCII 16 - ISO 2 - IRV 17 - ISO 16 - Portugal 18 - ISO 14 - JIS ASCII 19 - Legal 20 - CP 860 Portugal 21 - Danish OPE 22 - UNIX International 23 - Danish OPE II 24 - Spain II 25 - CP 863 French Canadian 26 - PC Abicomp International 27 - PC Abicomp Portugal 28 - CP 852 - Latin 2 29 - CP 857 Turkey 30 - CP 866 Cyrillic 31 - CP 210 Greece 32 - CP 851 Greece 33 - CP 862 Hebrew

Parameter (Identifier)	Value(s) (Qualifier)
Baudrate*	1200, 2400, 9600, 19200, 38400 baud
Parity*	None Even Odd
HandShaking*	Hard (DTR - within 500 character of the input buffer capacity) Soft (Xon / X off + DTR - within 500 character of the input buffer capacity)

\* Parameters significant only if the optional serial interface is present and connected.



# Troubleshooting

Your printer is designed to require only minimum maintenance, however, everyday use will give rise to a number of simple printer-care operations.

During normal printer operation, an error condition will be signalled by the simultaneous flashing of the On Line and Power light indicators. When you open the printer cover, the print head carriage will be positioned to indicate the corresponding action item on the embossed template.

This troubleshooting guide indicates some of the problems which may occur, together with suggestions for their solution. For further information, consult the specific topics contained in the **On-Line Guide**.

If you detect serious mechanical damage to or a failure in the printer, do not attempt to repair it yourself! CALL THE TECHNICAL SUPPORT SERVICE.

## General Care

### □ Environment

- Keep your printer in a stabilised, ventilated environment (temperature range: 15 to 35 °C - 60 to 95 °F; relative humidity: 20% - 80%).
- Do not subject your printer to brusque changes in temperature and/or humidity.
- Do not let dust accumulate on the printer; use a slightly damp cloth to remove dust.

Do NOT use abrasive or corrosive cleaning fluids to clean the printer.

### □ Transportation

- Always make sure that the print head is in its rest position.  
To ensure this, wait a couple of minutes after your last printing operation and always unplug your printer BEFORE switching off your PC.
- Take care not to drop your printer.
- Repack your printer in its original carton, whenever possible.

## Error conditions indicated by the print head carriage position

On the inside of the printer cover, there is an embossed template which, as well as illustrating the print head insertion/replacement procedure, indicates the most common reasons for an interruption in the printer operation.

When an error occurs, printing stops, On Line and Power light indicators flash simultaneously and the print head carriage position will correspond to one of the action items indicated on the embossed template (see specific paragraph in "Embossed template"). Correct the error and then press **Install Cartridge** to return the print head to its rest position.

# Installation

## ❑ Missing or damaged parts.

- Contact your retailer immediately.

## ❑ Printer is not powered.

No power supply (no light indicators are lit).

- Check that the printer is connected properly to the electrical power supply socket.

If no light indicators are lit, but the printer is powered, it is in standby condition. Press any key to return the printer to its operating status.

## ❑ No initial reset.

When you plugged the printer into the electrical power supply, the print head carriage did not move.

- Check that the carriage path is free of impediment.
- Try disconnecting the printer from the electrical power supply and then plugging it in again.
- If the On Line and Power light indicators are flashing rapidly, there is a failure on the mother board; call the technical support service.

## ❑ Demo page/Print test did not run.

- If the carriage does not move, check that its path is not obstructed.
- If the On Line and Power light indicators flash simultaneously, open the top cover to check the position of the print head carriage, which will have moved to indicate the operator action required:
  - there is no paper in the printer; load paper in the ASF and press **Form Feed** on the printer operator panel.
  - the print head/ink cartridge needs replacing; follow the instructions given in "Replacing the print head" and/or "Replacing the ink cartridge" in the **User Guide**.

- check that the print head is inserted correctly; if it is not, remove and reinsert it. Remember to press **Install Cartridge** once you have reinserted the print head.

- Disconnect the printer from the electrical power supply and then plug it in again:
  - if you attempted the print-out from the operator panel, repeat the key sequence.
  - if you attempted the print-out using the Printer Monitor, repeat the procedure described in "Preparing your printer using the Printer Monitor" in the **Installation Guide** and/or "Printer Monitor" in the **User Guide**.

## ❑ Problems with connection to host.

- Check that your interface cable is of the correct type.
- Make sure you have fixed the interface connectors properly both to the printer and to the host.
- If you have an "ECP"-type PC, check that its printer port setting is **Printer Port: LPTx**. If necessary, change this setting in your system properties:
  - right click on the **My Computer** icon,
  - select **Properties**, then **Device Manager**,
  - double click on **Ports (COM&LPT)**,
  - select **Printer Port: LPTx**.

If **Ports (COM&LPT)** does not offer a simple LPTx port or if the selection of this port does not solve your problem, you must change the LPT mode setting in your computer BIOS to either [Standard] or [Bi-directional]. For further information on the BIOS setting, refer to your computer documentation and/or contact your computer dealer.

- Check that you have configured your application correctly (see the **On-Line Guide** loaded with your driver, and your application manual).

# Paper

## Precautions

- Sub-standard paper can affect the quality of printing.
- Make sure the paper feeds smoothly, and that it is not held too tightly nor has too much play.
- The document/envelope must not be crumpled or torn, otherwise it may jam or even not be inserted. Always use paper in perfect condition and within the specifications defined.
- Printing on both sides of the paper may increase the risk of misfeeds or paper jams and may cause smudging.
- If you remove the paper from or add paper to the ASF, you **MUST** repeat the entire paper loading operation.
- To guarantee correct paper feed, A5 size pages must be inserted horizontally (long side as leading edge). Select "Landscape" print orientation in your driver settings, if you want to read across the width of your document ("Portrait"); select "Portrait" print orientation to read long its length ("Landscape").
- When using user-defined/non-standard size documents, remember to select the appropriate paper type in your printer driver (see the **On-Line Guide** loaded with your printer driver).

### ☐ No paper.

If, on a print command, there is no paper to load in the printer, the On Line and Power light indicators flash slowly and the print head carriage moves to indicate error condition 1.

To clear this condition, load paper in the ASF and press **Form Feed**.

### ☐ Paper does not load.

- Check that the size and weight of the paper used are within the limits allowed. Press **Form Feed**, then repeat the paper loading operation.
- If you removed the paper from the ASF, you must press **Form Feed**, repeat the entire paper loading operation and then press **Form Feed** again.

- Make sure the paper is not feeding in crookedly.
- Paper jamming - see specific item in this section.
- Make sure the correct paper feed parameter is selected in your printer driver, load paper in the ASF and press **Form Feed**.

### ☐ Single sheets/envelopes not loaded (or loaded incorrectly).

- The document/envelope has not been positioned correctly for insertion.
- Make sure the correct paper format parameter is selected in your printer driver.
- Preprinted documents must have a clean 5 mm (0.2 in) lateral margin before the first print position.
- Document is being fed with a reduced line feed, causing overprinting of successive print lines. ASF feed mechanism is not synchronised correctly. Remove all the paper from the ASF, press **Form Feed** and then reload the paper in the ASF.

### ☐ Paper jams or tears.

The most common causes of paper jamming in the ASF is the addition of paper when the tray is not empty and/or the incorrect loading of paper.

When adding paper to the ASF, ALWAYS remove any paper already present and reload it all as a single pack.

After clearing a paper jam, ALWAYS remove any paper still in the ASF, press **Form Feed** and then reload the paper.

- If the paper has already exited from the print area:
  - set the printer OFF LINE (On Line light indicator off),
  - open the top cover and remove the jammed paper.

To resume printing, close the printer cover and press **On Line**.

## Print head

- If the paper jams in the ASF:
  - disconnect the printer from the electrical power supply,
  - remove the damaged page(s) from the ASF. Remove the rest of the paper, fan and square it and then reload it in the ASF.
- Do not attempt to print on small adhesive labels attached to larger size glossy paper (e.g. A4 format). This type of label tends to detach during printing and recovery from inside the printer is difficult.

### □ Print head care

- Always keep the print heads and ink cartridges sealed until they are to be used.
- Remove the ink cartridge from the print head ONLY to replace it. Do NOT remove and then reinsert it.
- When changing the print head, take care not to touch the print head carriage shaft nor the area under the print head carriage.
- Remember to remove the protective tape before inserting the print head/ink cartridge in the printer. Take care not to get ink on your clothes; the ink in the head/cartridge stains.
- Do NOT attempt to refill the print head/ink cartridge with ink, as this damages the print head and the printer.
- DO NOT shake the print head; it is not a fountain pen. If it does not print, do the cleaning operations described in "Cleaning the print head".
- If you think that the number of pages printed with the current print head/ink cartridge is fewer than usual, try cleaning it. If the "end of ink" condition persists, the print head/ink cartridge is empty and requires replacing.

Always make sure that the print head is in its rest position BEFORE switching off your computer. When the printer is powered, the print head will automatically return to its rest position and go into standby mode after approximately two minutes of inactivity.

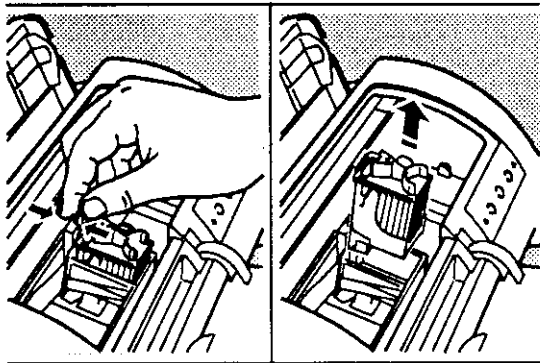
### □ Cleaning the print head (Clean)

The print head is cleaned automatically at regular intervals while the printer is powered. This operation clears the print head nozzles, guaranteeing the ink flow. If you have a problem with the printing quality that is not solved by this automatic nozzle clearing operation, you can do the same operation, using the "CLEAN" function in the Printer Care tab in Printer Monitor (see the specific paragraph in "Printer Monitor").

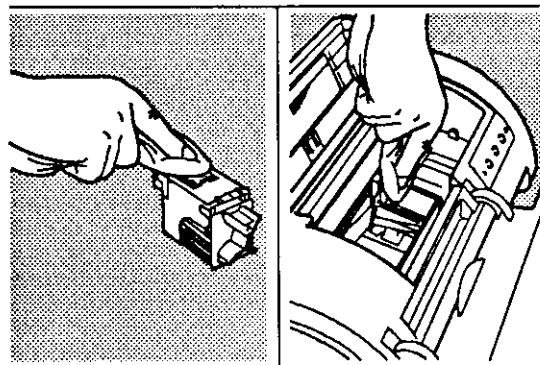
If you have a problem with the printing quality that is not solved by the nozzle clearing operation described above, try cleaning the print head, as follows:

**1. Press Install Cartridge.**

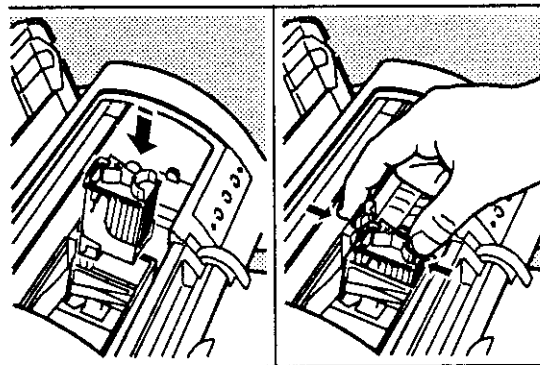
**2. Open the printer cover, release and remove the print head.**



**3. Clean the electrical contacts (gold part) on the print head and in the housing on the print head carriage with a slightly damp lint-free cloth, taking care not to touch the print head nozzles.**



**4. Re-insert the print head in the printer and close the cover.**

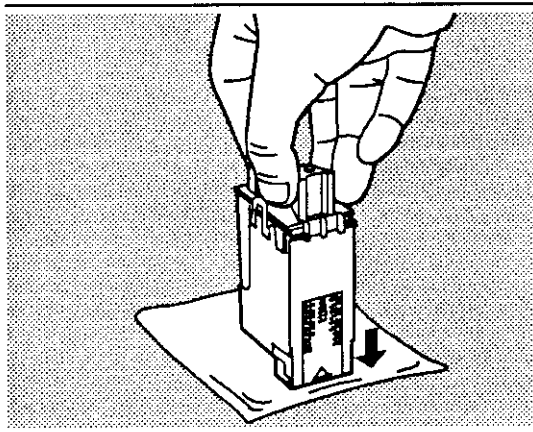


**5. Press Install Cartridge again.**

If there is still no improvement in the print quality, try cleaning the print head nozzles.

**This operation MUST NOT be repeated systematically, as it will damage the print head. It should ONLY be attempted as a last resort, before changing the ENTIRE print head.**

1. Dampen a tissue handkerchief with distilled water; squeeze it slightly to remove any excess water.
2. Press **Install Cartridge**, open the printer cover, release and remove the print head.
3. Holding the print head with the nozzles facing downwards, blot it against the handkerchief, pressing lightly.



4. Repeat the blotting operation a few times on different areas of the handkerchief, to clean the nozzles.
5. Reinsert the print head in the printer and press **Install Cartridge**.
6. Print the "demo" page to check the quality of printing (see the specific paragraph in "Printer Monitor" in the User Guide).

#### ❑ Printer does not print

- Check that you have removed the protective film from the print head.
- The light indicators are flashing slowly and the print head carriage position indicates error condition 3.  
The print head/ink cartridge needs replacing.

#### ❑ Print head carriage does not return to the rest position after a replacement operation.

- Check that the print head is inserted correctly.
- Check that nothing is blocking the carriage path.

#### ❑ Missing dots

If dots or lines are not printed completely, remove the ink jet print head and reinsert it, or:

- Execute the print head cleaning operation, through the Printer Monitor (see the specific paragraph in *"Printer Monitor"* in the **User Guide**).
- Clean the electrical contacts on the print head and those in the chamber on the print head carriage (see the specific paragraph in *"Cleaning the print head"*).

After cleaning the print head and/or print head carriage, print a "demo" page to check the print quality. If the print quality is still not acceptable, run a print test. For both these operations, see the corresponding paragraphs in *"Printer Monitor"*.

**Make sure that the print head is inserted and that there is paper in the ASF.**

Once the test is completed and the sheet of paper expelled, the printer will go automatically into ON-LINE condition. Check the print quality of the test, making sure that all the characters are clearly defined and complete.

#### ❑ Monochrome print test contents

The monochrome print test contains information on the printer firmware (release, emulation and character generators) and the correct operation of the print head nozzles:

- The first line of the print test contains technical information about the printer.
- The second line of print test indicates the print head type.
- The third line of the print test (Print Head Test), consists of a diagonal line, indicating the performance of the head nozzles, and the result line (Pass, or Fail with the number(s) of the faulty nozzle(s)). It allows you to check whether any dots are missing.  
If dots are missing, see the section *"Cleaning the print head"*, then repeat the print test.
- The rest of the print test contains the currently selected values for the programmable parameters and a print-out of the currently selected character set.

In most cases, the parameter settings will be determined by your printer driver. If you wish to modify your printer set-up, see the appropriate section in the **On-Line Help** loaded with your printer driver.

#### ❑ Colour print test contents

The colour print test consists of three bands of colour (one for each of the basic colours in the print head) printed three times, preceded and followed by the nozzle test allowing you to check the correct operation of each group of nozzles.

The short coloured band under the nozzle test indicates the correct functioning (blue) or not (red) of the print head contacts.

If any nozzle numbers are missing, the nozzles should be cleared (see the appropriate paragraph in *"Printer Monitor"*) in the **User Guide**.

If none of these operations result in improved print quality, you must replace the print head.

**If you have any problems running the print test, check that you have followed the operating procedures correctly.**

# Printing

During a printing operation, do not stop the print head manually nor touch the area within the print head carriage path.

## ❑ Printer does not print/receive data.

- Check that the printer is connected to the electrical power supply and On Line (the On Line and Power light indicators on the printer operator panel should be lit).
- Check the physical (cables) and logical (application and driver) connections between the printer and host.
- Check that host system is switched on.
- Check that the printer port setting on your PC is **Printer Port: LPTx**. If necessary, change this setting in your system properties (see *"Problems with connection to host"* in *"Installation"*).
- If the print head carriage does not move and the On Line and Power light indicators flash rapidly, disconnect and reconnect the printer to the electrical power supply. If the light indicators continue to flash rapidly, call the technical support service.
- Check that you have removed the protective film from the print head.
- If the On Line and Power light indicators flash slowly, open the printer cover to see the error condition indicated by the print head carriage position (see *"Embossed template"*) in the **User Guide**.
- Check whether the printer is in the special functions mode (printer powered but both light indicators off).

## ❑ Printing stops.

- If the On Line and Power light indicators flash simultaneously, open the top cover to see which action item the print head carriage position indicates.
- If only half or three-quarters of your page is printed, check that the printer port setting in your PC is **Printer Port: LPTx**. If necessary, change the port setting (see *"Problems with connection to host"* in *"Installation"*).

- Check that paper is present and that it loads correctly.  
If there is no paper in the printer, load up to 40 sheets of paper in the ASF and press **Form Feed** on the printer operator panel.

See *"Loading paper in the printer"* in the **Installation Guide** for the correct paper loading procedure.

- Replace the ink cartridge or change the print head.

See *"Replacing the print head"/"Replacing the ink cartridge"* in the **User Guide** for the correct print head/ink cartridge replacement procedure.

- Printing stops in the middle of the print job and the page is ejected; check that the printer port setting on your PC is **Printer Port: LPTx**. If necessary, change the port setting (see *"Problems with connection to host"* in *"Installation"*).

## ❑ Printing does not resume after changing the print head/ink cartridge.

- The print head/ink cartridge is not inserted/fixed correctly.  
Make sure the print head is inserted and fixed towards the rear of the printer and that the ink cartridge is completely inserted in the print head.

See *"Replacing the print head"/"Replacing the ink cartridge"* in the **User Guide** for the correct print head/ink cartridge replacement procedure.

## ❑ Poor print quality.

### (a) Leggibility

- Clean the print head, clicking on the appropriate button in the Printer Care tab in the Printer Monitor (see the specific section in the **User Guide**).
- Clean the electrical contacts on the print head and those in the print head carriage (see **Print head** in this section).
- Try printing on the other side of the paper.
- Make sure you are using good quality paper.

## (b) Character alignment

- In Windows® environment, access the **Printer Care** tab in the **Printer Monitor** and run the **ALIGN** function, to correct possible bi-directional disalignment of the characters (see specific paragraph in *"Preparing your printer using the Printer Monitor"*).

### ❑ Strange characters are printed.

- Check that the driver you have selected is compatible with the emulation/application you are using.
- Check the interface cable quality and length (max. recommended length: 2 metres).
- Check that the character set you require is selected (the currently selected parameters, including the character set, are given in the monochrome print test - see *"Monochrome print test contents"* in *"Print head"* in this section).
- With some applications (CorelDraw, Designer, etc.), you may obtain strange print-outs (extra-large characters, altered character spacings, incorrectly proportioned graphics). This is due to difficulties in handling the non-square resolution (600 x 300 dpi) used in Presentation Print Quality. If this occurs, you should select High Quality.
- Check that the printer port setting on your PC is **Printer Port: LPTx**. If necessary, change the port setting (see *"Problems with connection to host"* in *"Installation"*).
- If you cannot solve this problem, your hot line service may request you to run a hex-dump of a test piece to check that the data transmission is operative. To run the hex-dump, proceed as follows:
  - Press in sequence and hold together **On Line**, **Install Cartridge** and **Form Feed**, until the light indicators go off, then release together. Then press and release **On Line**, **Form Feed**, **Install Cartridge** in this order.
  - Send a **short** text file from your computer. The content of this file is printed as a string of hexadecimal codes corresponding to the individual characters transmitted.

- To exit from hex-dump mode, hold **On Line** and press **Form Feed** (RESET).

### ❑ Print test executed correctly, but unable to print in Windows® environment

The printer driver may not be installed correctly.

- Check that the name of the printer appears in the **List of printers** in the **Printers** dialogue box:
  - If the printer name is not listed, install it following the driver installation procedure described in the **Installation Guide**.
  - If the printer name is listed, remove it from the list by clicking on the **Remove** button in the **Printers** dialogue box and then repeat the driver installation procedure.

### ❑ Colour printing and your PC monitor.

- You are continually getting an "out of memory" message which is preventing you from printing. Your colour monitor is set to "high" and is processing all the data.

Change/reduce the setting. You will not lose in printing quality and you will be able to print without this error message appearing.

- Colours on your PC monitor differ from colour produced by your printer.

As your PC monitor and printer use different methods to create colour (PC monitor: red, green, blue; printer: cyan, magenta, yellow), the colours produced in your printed document may differ. Beyond adjusting the printer driver, you will get the best colour matches if you use a 24-bit colour monitor.

- Colour printing speed.

The speed at which your colour document is printed depends on:

- the processing speed of your PC,
- the amount of RAM available in your PC,
- the type of document you are printing.



# Product Characteristics

## Printing Technique

Non-impact, bubble ink jet, with water-resistant ink

## Colour Print Head

## Monochrome Print Head with Replaceable Ink Cartridge

## Optional Photo Print Head

## Throughput

*N.B.: these values may vary depending on the print mode (Draft/LQ), the software application and/or the type of computer used.*

Windows® or OS/2 environments:

up to 3 pages per minute (ppm)

DOS and similar environments:

200 cps in Draft (10 cpi);

167 cps in LQ

## Paper Handling

Automatic sheet feeder (ASF)

## ASF Capacity

Plain paper : up to 40 sheets (80 g/m<sup>2</sup> sheets)

## Paper Format

*Single sheets:*

A4 (210 mm x 297 mm)

Horizontal A5 (210 mm x 148.5 mm)

U.S. Letter (8.5 in x 11 in)

U.S. Legal (8.5 in x 14 in)

U.S. Executive (7.25 in x 10.5 in)

Banners

*Envelopes:*

COM-10 (9.5 in x 4.125 in)

DL (220 mm x 110 mm)

C5 (229 mm x 162 mm)

C6 (162 mm x 114 mm)

B5 (250 mm x 176 mm)

B6 (176 mm x 125 mm)

## Paper Type

Plain office paper

Transparencies

Glossy paper

Coated papers

Special photographic paper

Envelopes

T-Shirt transfers

## Paper Weight

Single sheets: 64 to 130 g/m<sup>2</sup>

Envelopes: 75 to 100 g/m<sup>2</sup>

## Paper Width

Max. 8.66 in (220 mm)

## Graphic Density (H x V)

75 x 75 dpi

100 x 100 dpi

150 x 150 dpi

300 x 300 dpi

600 x 300 dpi

## Resident Emulation

PCL III +

## RAM

128K bytes

## Interface

Parallel (Centronics)

Optional serial EIA 232C/V24

## Operating Environment

Temperature: 60 to 95 °F - 15 to 35 °C

Relative Humidity: 20% - 80%

## Sound level

48 dB in LQ printing mode

## Resident Fonts

- Courier:

orientation: Portrait and Landscape

pitch: 5, 8.33, 10, 16.67, 20, 33.34 cpi

size: 6, 12 points

style: Upright (Italic 5, 10, 20 cpi)

- Team Nordic:

orientation: Portrait

pitch: Proportional

size: 6, 12 points

style: Upright and Italic

- Letter Gothic:

orientation: Portrait and Landscape

pitch: 5, 6, 8.33, 10, 12, 20, 24, 33.34 cpi

size: 4.75, 6, 9.5, 12 points

style: Upright (Italic 12, 24 cpi; 12 points)

- BF Team:
  - orientation: Portrait
  - pitch: Proportional
  - size: 8, 10, 12, 14 points
  - style: Upright and Italic
- Linea:
  - orientation: Portrait
  - pitch: Proportional
  - size: 8, 10, 12, 14 points
  - style: Upright (Italic 10, 12 points)

## Character Sets

CP 437 International  
 Roman 8  
 PC 8 Denmark/Norway  
 CP 850 Multilingual  
 ECMA-94 Latin 1  
 ISO 4 - United Kingdom  
 ISO 21 - Germany  
 ISO 69 - France  
 ISO 15 - Italy  
 ISO 60 - Norway 1  
 ISO 61 - Norway 2  
 ISO 11 - Sweden Names  
 ISO 10 - Sweden  
 ISO 17 - Spain  
 ISO 6 - ASCII  
 ISO 2 - IRV  
 ISO 16 - Portugal  
 ISO 14 - JIS ASCII  
 Legal  
 CP 860 Portugal  
 Danish OPE I  
 UNIX International  
 Danish OPE II  
 Spain II  
 CP 863 French Canadian  
 PC Abicomp international  
 PC Abicomp Portugal  
 CP 852 Latin 2  
 CP 857 Turkey  
 CP 866 Cyrillic  
 CP 210 Greece  
 CP 851 Greece  
 CP 862 Hebrew

## Product Certification

*For USA and Canada*

Safety regulations:

USA: UL 1950/478

Canada: C/UI

Electromagnetic compatibility:

FCC part 15 Class B Certified

*For EEC:*

Safety regulations:

"CE" mark

NEMKO EN 60950 + A1, A2, A3

Electromagnetic compatibility:

"CE" mark

EN 55022 Class B

EN 50082-1

EN 60555-2

## Electrical Characteristics

- 110 - 120 V, +/- 10%; 50 - 60 Hz

- 220 - 240 V, +6%; -10%; 50 - 60 Hz

## Physical Characteristics

*Printer ready for use*

Height 14.17 in (360 mm)

Width 14.76 in (375 mm)

Depth 7.87 in (200 mm)

Weight 4.84 lbs (2.2 kg)

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## TERMS AND CONDITIONS OF GUARANTEE

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- The guarantee is valid commencing from the date of purchase, as proven by the invoice or fiscal receipt.
- The guarantee covers only the repair or replacement free of charge of any component parts found to have manufacturing defects.

## LIMITS TO GUARANTEE

1. The guarantee does not cover parts or accessories that, for the normal functioning of the product, require periodic replacement (i.e. print heads, ink cartridges, toner, etc.).
2. The guarantee does not cover products and single component parts found to be defective or damaged due to:
  - (a) Incorrect power supply, incorrect or improper installation or use in contrast with the indications given in the user's manual supplied with the product, lack of care during use and/or storage of the product.
  - (b) Tampering with or unauthorised substitution of original component parts or accessories with parts or accessories not approved by the manufacturer or carried out by unauthorised personnel, use of non-original accessories or those regenerated by third parties.
  - (c) Accidents or damage that cannot be attributed to Olivetti Lexikon, including, but not limited to:
    - natural events (floods, earthquakes, lightning, fire, etc.), negligence and willful damage.
3. The guarantee does not cover parts in glass or light bulbs.
4. Should the product require repair during the period of guarantee, the purchaser must deliver the product, complete with a copy of the purchase invoice or fiscal receipt to the authorised repair centre. Transport of the product to the repair centre is paid for and at the risk of the purchaser. The product will be returned to the purchaser as requested by him or according to the procedure established by the repair centre, with the cost of return charged to the purchaser. To prevent damage during transport, not covered by the guarantee, the product should be repacked in its original packaging.
5. Repair(s) carried out during the guarantee period do not modify the duration or expiry date of the same.
6. The guarantee does not cover modifications for adaptation to local power supply voltage or safety requirements. Modifications of this type can affect the correct functioning of the product and will invalidate the guarantee.
7. In those parts where this guarantee does not conform to local legislation, it shall be considered modified to conform to such legislation.
8. Up to the limits established by local legislation, this guarantee indicates the only solutions to the purchaser recognised by Olivetti Lexikon through the authorised service network.
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**<http://www.olivettilexikon.com/world/index.html>**