

# OKI®

# MICROLINE® 186



## User's Guide

59358801

*Oki, Network Solutions  
for a Global Society*

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# Contents

|   |           |
|---|-----------|
| <b>Notes, Cautions, etc.</b> . . . . .                      | <b>4</b>  |
| <b>Getting Started</b> . . . . .                            | <b>5</b>  |
| Location . . . . .  | 5         |
| Contents and Unpacking . . . . .                            | 5         |
| Removing the Shipping Restraint . . . . .                   | 6         |
| Installing/Replacing the Ribbon Cartridge . . . . .         | 7         |
| Installing the Platen Knob . . . . .                        | 10        |
| Adjusting the Head Gap . . . . .                            | 11        |
| Installing the Paper Separator . . . . .                    | 12        |
| <b>Setting Up Your Printer</b> . . . . .                    | <b>13</b> |
| Power Connection . . . . .                                  | 13        |
| Loading Paper . . . . .                                     | 14        |
| Testing Your Printer . . . . .                              | 30        |
| Computer Connections . . . . .                              | 31        |
| Setting up the Printer to Work with Your Computer . . . . . | 38        |
| <b>Operating Your Printer.</b> . . . . .                    | <b>42</b> |
| Front Panel Operation . . . . .                             | 42        |
| Setting Printer Defaults . . . . .                          | 45        |
| Using the Pull Tractor Unit . . . . .                       | 53        |
| Using the Roll Paper Stand . . . . .                        | 56        |
| <b>Maintenance</b> . . . . .                                | <b>60</b> |
| Replacing the Ribbon Cartridge . . . . .                    | 60        |
| Testing Your Printer . . . . .                              | 62        |
| Cleaning the Housing . . . . .                              | 64        |
| <b>Parts &amp; Options</b> . . . . .                        | <b>66</b> |
| Replacement Parts . . . . .                                 | 66        |
| Options . . . . .   | 67        |
| <b>Specifications</b> . . . . .                             | <b>68</b> |
| <b>Index</b> . . . . .                                      | <b>72</b> |

# Notes, Cautions, etc.

## **Note**

A note appears like this. It provides additional information which helps you to use and understand the product.

## **Important**

An important message appears like this. It provides supplemental information which can prevent potential problems.

## **CAUTION!**

A caution message appears like this. It provides information which, if ignored, can result in equipment malfunction or damage.

## ***WARNING!***

A warning message appears like this. It provides information which, if ignored, can result in the risk of personal injury.

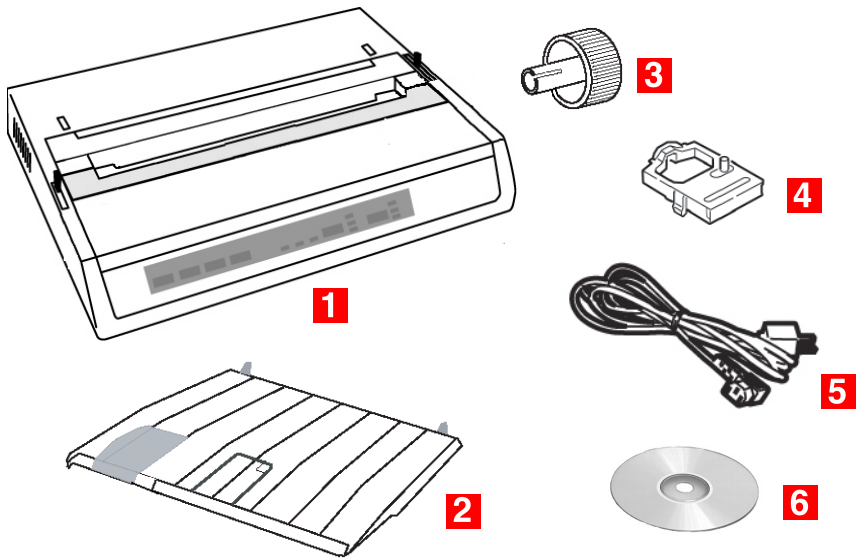
# Getting Started

## Location

- Select a firm, solid surface for your printer.
- Allow enough space around the printer to easily access the platen knob and the various paper feed paths.
- Make sure a suitable grounded power outlet is available nearby.

## Contents and Unpacking

- If any items are missing, contact your dealer immediately.
- Keep your packing materials and carton in case you ever need to ship or transport the printer.
- Interface cables and paper are sold separately.



**1** ML186 Printer

**2** Paper Separator

**3** Platen Knob

**4** Ribbon Cartridge

**5** Power Cord

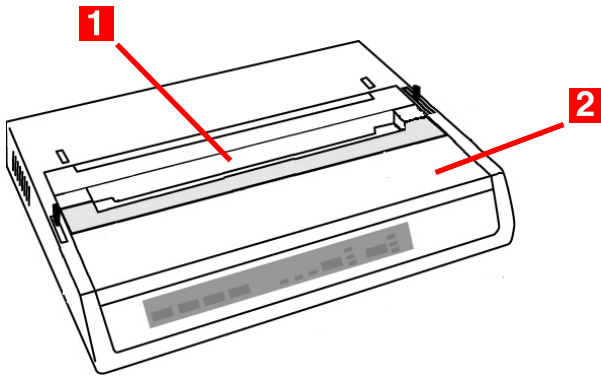
**6** CD

# Removing the Shipping Restraint

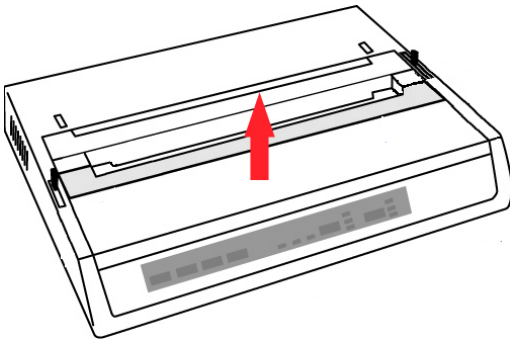
## **Important!**

Do not plug the printer into the power outlet until the following steps have been completed.

1. Remove any packing tape.
2. Reach into the top cover slot (1) and remove the access cover (2) by lifting it.



3. Remove the printhead shipping restraint. Keep the shipping restraint for future use.



4. Reinstall the access cover.

# Installing/Replacing the Ribbon Cartridge

*Use only genuine Oki Data ribbon cartridges.*

When replacing a ribbon cartridge, make sure you have the correct replacement ribbon for your printer. The wrong ribbon will not print when installed in your printer.

## **Important**

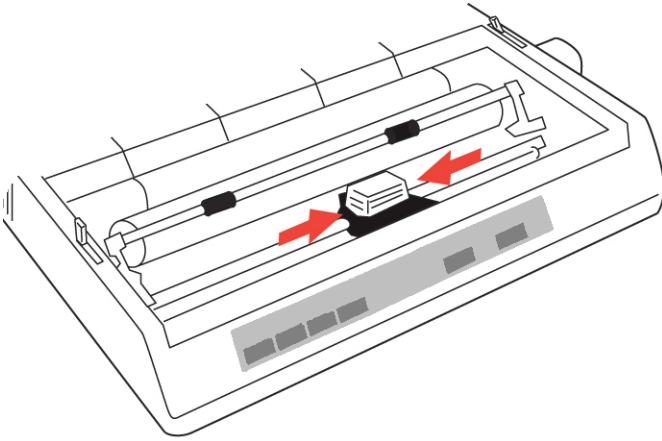
- Leave unused ribbon cartridges in their packaging until you are ready to install them.
- **Careful!** The ribbon ink can cause permanent stains.
- Ribbon ink on skin or clothing can usually be removed with soap and water.

**1. Make sure the printer is turned off!**

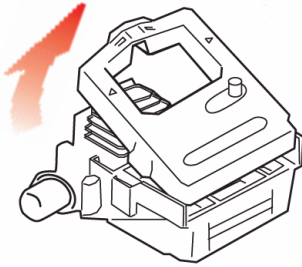
## **WARNING!**

**If the printer has been recently used, the printhead may be HOT!**

2. Remove the access cover and center the printhead.

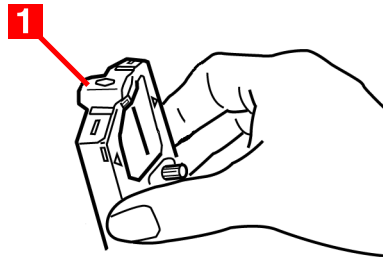


3. If you are replacing the ribbon cartridge, remove the used one:

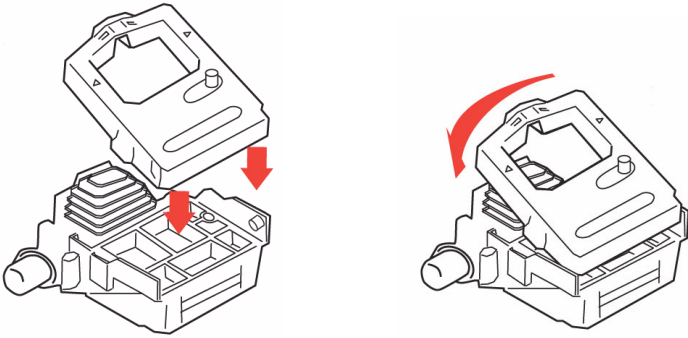


### **Important**

Do not remove the ribbon shield (1) from the new ribbon!



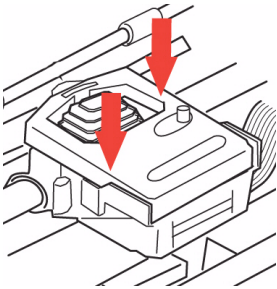
4. Unpack the ribbon cartridge and install it on the printhead.



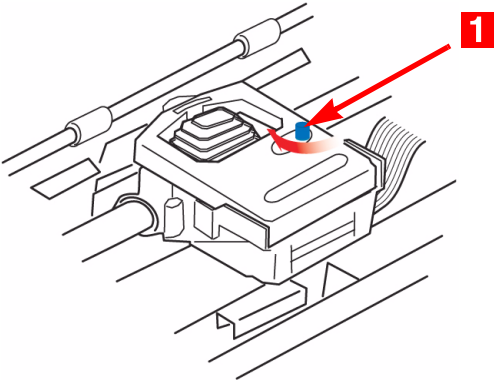
### Note

If the ribbon won't load easily, turn the take-up knob slightly until the x-shaped notch on the bottom of the ribbon cartridge aligns with the x-shaped insert on the ribbon plate.

5. Press gently on the ribbon cartridge until you feel it click into place.



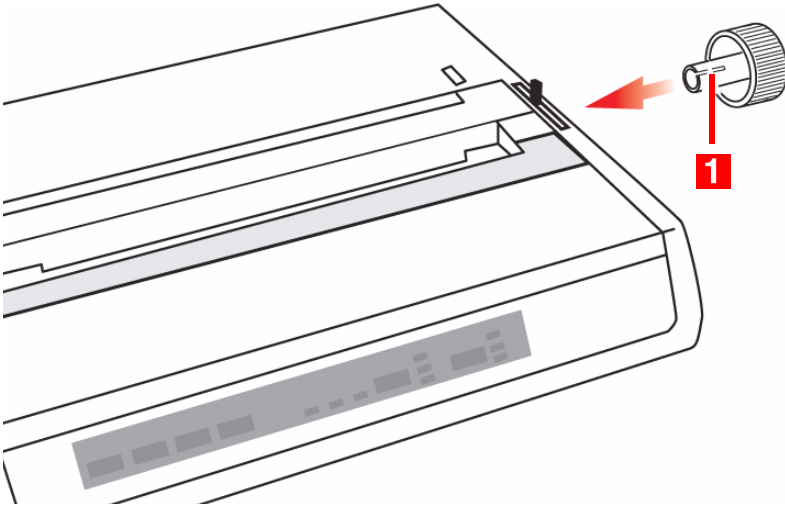
6. Turn the take-up knob (1) in the direction of the molded arrow to take up any ribbon slack.



7. Replace the access cover.

## Installing the Platen Knob

Align the notch (1) with the pin on the platen shaft and push it firmly into place.



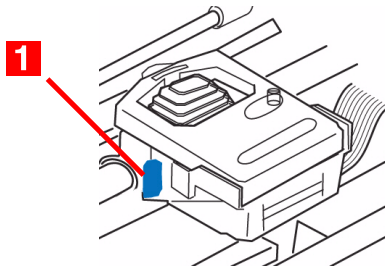
# Adjusting the Head Gap

The head gap is the distance between the printhead and the platen roller. When you use envelopes or multipart forms, you need to have a larger gap than when using plain paper. Use the recommended head gap to ensure the best print quality and easy paper feed

## CAUTION!

**Incorrect setting of the head gap can cause printhead damage or ribbon jams. To avoid these problems set the head gap for the type of media being used.**

To adjust the head gap, move the colored lever (1) located to the left of the ribbon cartridge to the correct position for the type of media being used ...



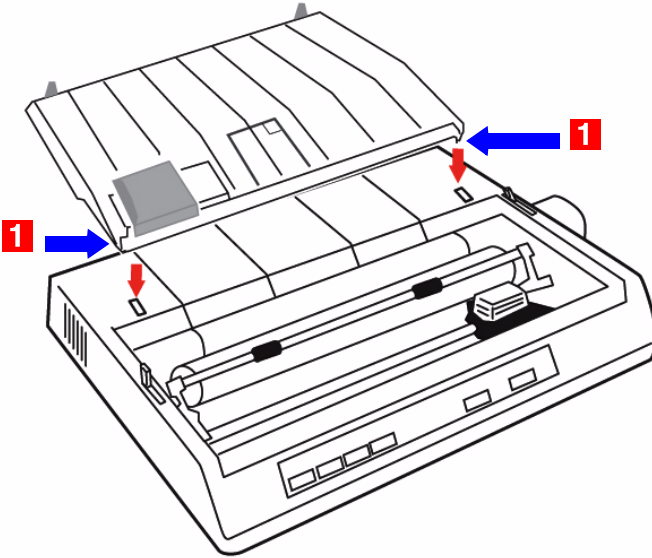
...as detailed in the following table:

| Paper Type   | Lever Position |
|--|----------------|
| Single Sheets, up to 20 lb. (75 g/m <sup>2</sup> ) | 1 or 2         |
| Forms, 2-part [maximum thickness 0.28 mm]          | 2 or 3         |
| Forms, 3-part [maximum thickness 0.28 mm]          | 3              |
| Forms, 4-part [maximum thickness 0.28 mm]          | 3              |

# Installing the Paper Separator

The paper separator is used for printing on single sheets (no carbons). With continuous forms paper, it is used to separate the ingoing/outgoing paper to prevent paper jams.

1. Hold the paper separator with the spring-loaded feet down.
2. Place the tabs (1) on the paper separator in the two corresponding slots (↓) on the printer.

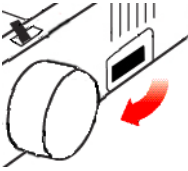


3. Press down to release the paper separator onto the printer.

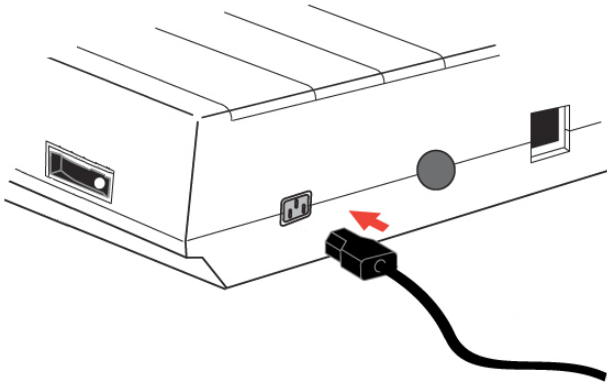
# Setting Up Your Printer

## Power Connection

1. Make sure the printer is turned off.



2. Plug the power cord supplied with your printer into the back of the printer.



### **Important**

The outlet voltage must match the voltage marked on the printer label.

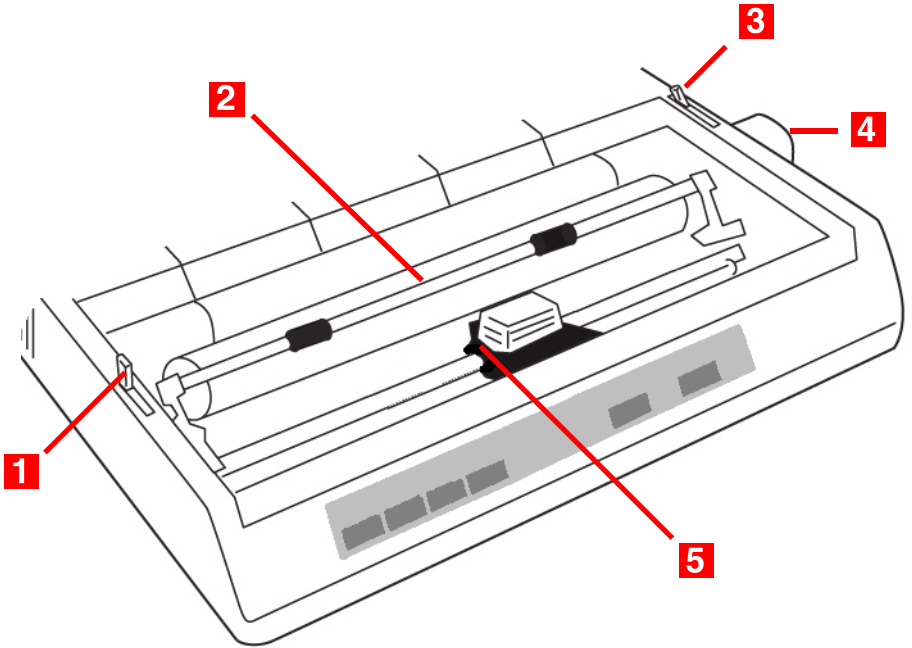
3. Plug the other end of the power cord into an appropriate grounded outlet.

# Loading Paper

Three types of paper can be used with your printer:

- Continuous Forms Paper  
(with or without the optional Pull Tractor)
- Single Sheets
- Roll Paper, *using the optional Roll Paper Stand*

## Before You Start

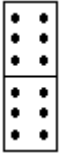


- 1 Bail Arm Lever
- 2 Bail Arm
- 3 Paper Lever
- 4 Platen Knob
- 5 Head Gap Lever

## Paper Lever Positions



= Single Sheet Feed



= Continuous Forms

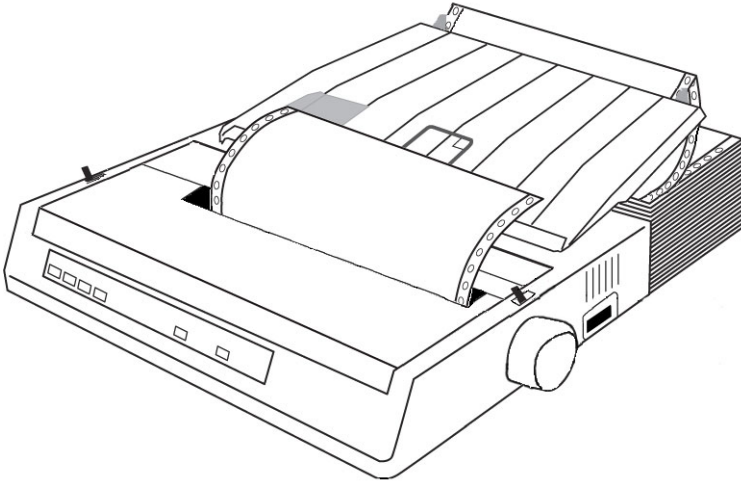
## Setting the Head Gap

Before you load paper, be sure to check the head gap lever setting (see page 11).

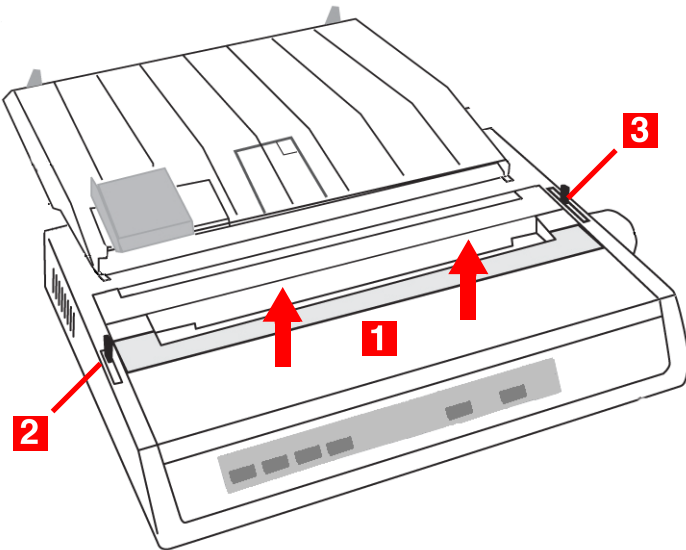
### **Important**

Do not plug the printer into the power outlet until the following steps have been completed.

# Loading Continuous Forms, Rear Feed

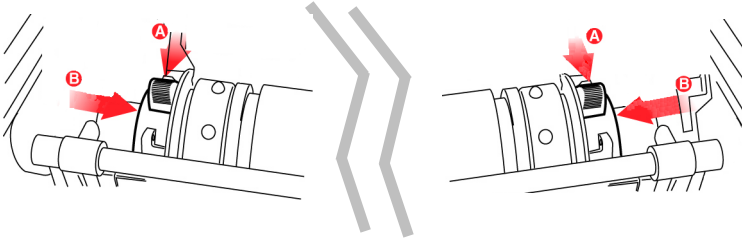


1. ***Make sure the printer is turned off.***
2. Place the stack of continuous forms paper behind the printer.
3. Remove the access cover (1).

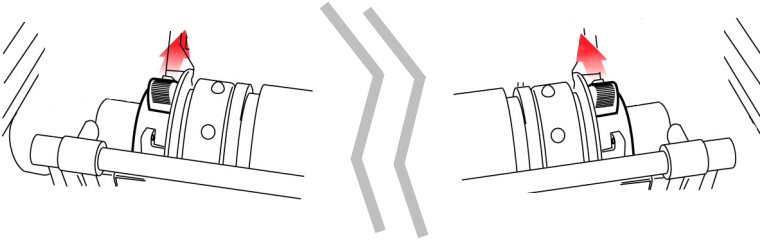


4. Pull the bail arm lever (2) — on the left side of the printer — toward the front of the printer to lift the bail arm.

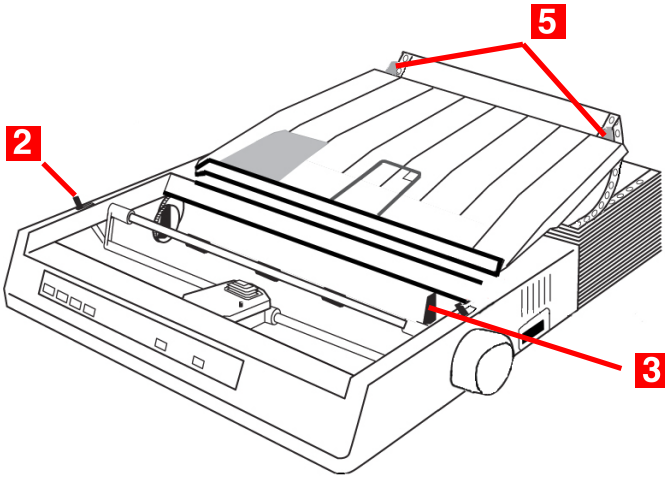
5. Move the paper lever (3) — on the right side of the printer — toward the front of the printer to the continuous forms symbol.
6. Pull the lock levers (A) on the sprocket wheels at either end of the platen forward, then adjust the sprocket wheels (B) so that the sprockets align with the holes in the continuous forms you are using.



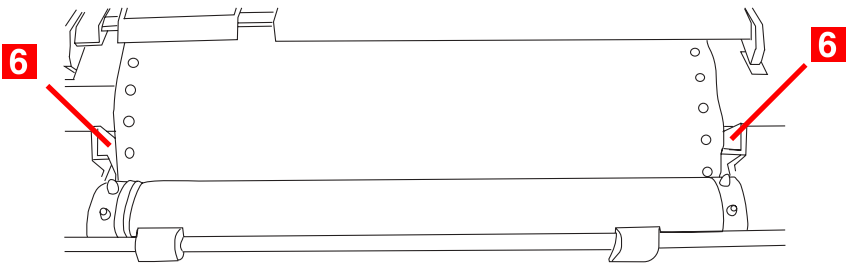
7. Push the levers back to lock the sprocket wheels in position.



8. Insert the first sheet of paper between the paper separator guides (5) and push it through the paper separator.



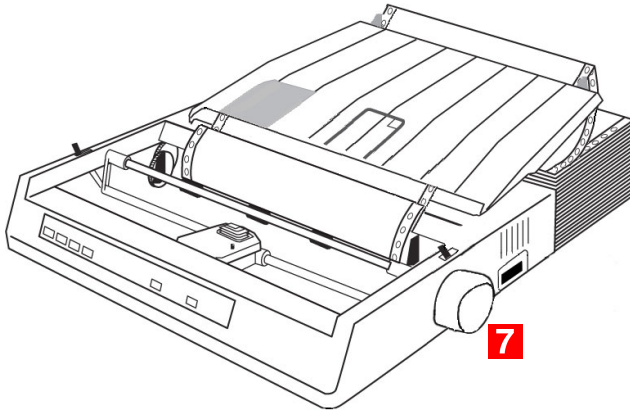
9. Place the paper between the sprocket feed guides (6) and feed it behind the platen, gently positioning it so that its holes engage the sprockets on the ends of the platen.



### Note

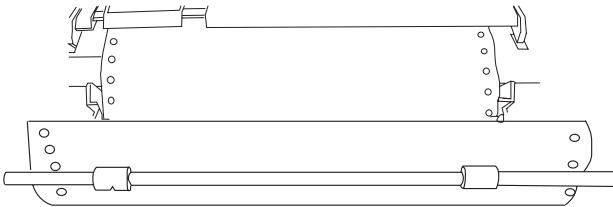
Make sure you keep the lead edge of the paper straight so that the sprockets engage the matching pins on either side. Otherwise the paper will feed in skewed and paper jams will occur.

10. Turn the platen knob (7) to advance the paper until it appears in front of the platen, behind the bail arm.

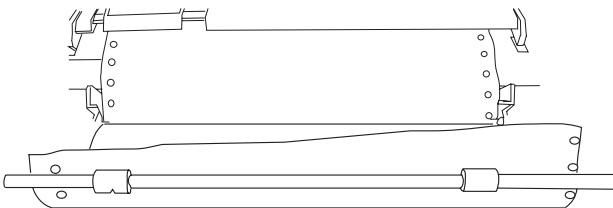


### **Important**

Check to be sure that the matching holes on either side are engaging the sprockets (A). If they are not evenly matched and the paper is skewed (B), back the paper out and try again!

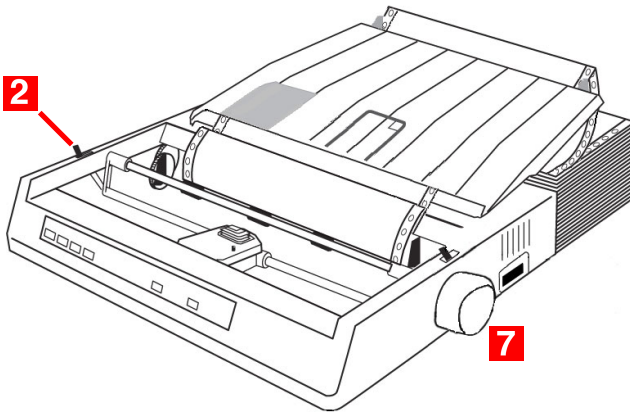


**A**



**B**

11. Push back on the bail arm lever (2) to lower the bail arm.

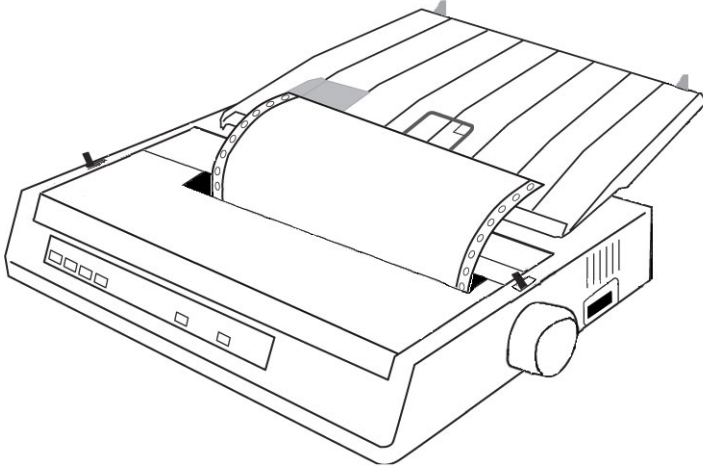


12. Use the platen knob (7) to set the position of the paper to the first printing line.

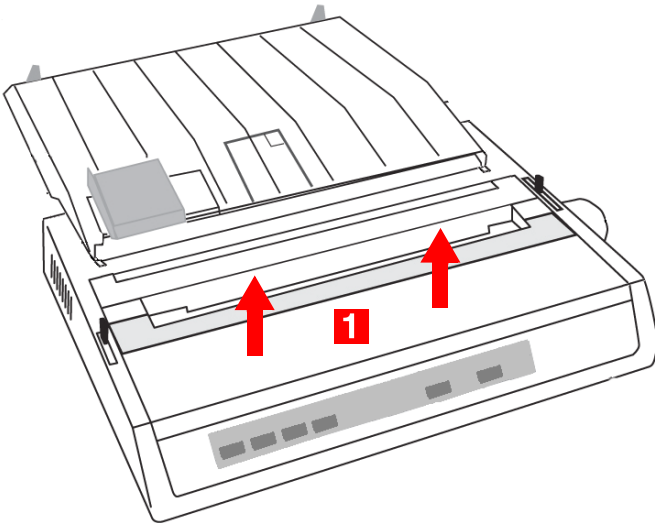
13. Replace the access cover, being sure to feed the edge of the paper through the slot in the cover.

14. Turn the printer on.

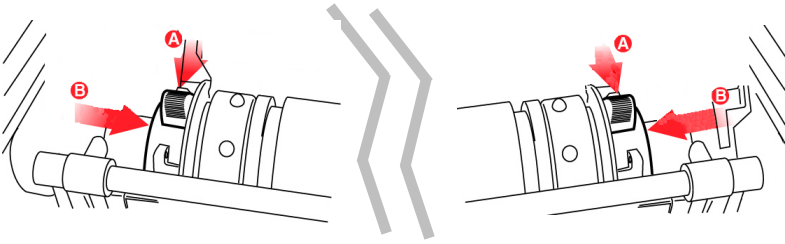
# Loading Continuous Forms, Bottom Feed



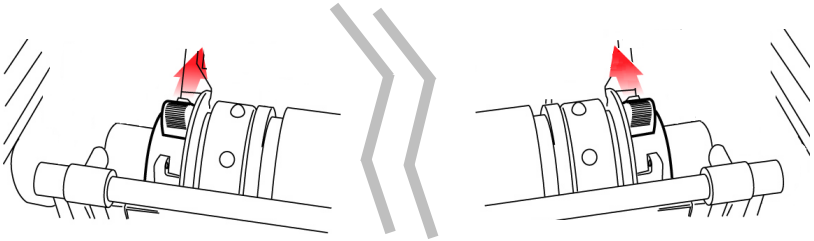
- 1. Make sure the printer is turned off.**
2. Place the printer on a slotted printer stand, carefully aligning the slot in the stand with the slot in the base of the printer.
3. Place a box of continuous forms paper on the stand, under the printer.
4. Remove the access cover (1).



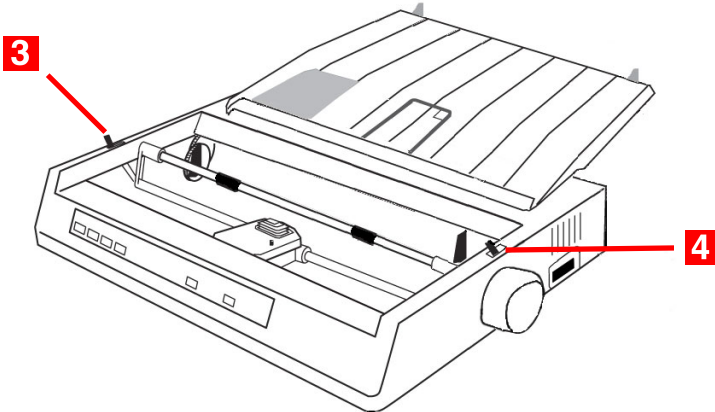
5. Pull the lock levers (A) on the sprocket wheels at either end of the platen forward, then adjust the sprocket wheels (B) so that the sprockets align with the holes in the continuous forms you are using.



6. Push the levers back to lock the sprocket wheels in position.



7. Pull the bail arm lever (3) — on the left side of the printer — toward the front of the printer to lift the bail arm.

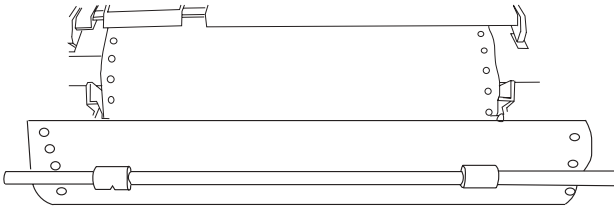


8. Move the paper lever (4) — on the right side of the printer — toward the front of the printer to the continuous forms symbol.

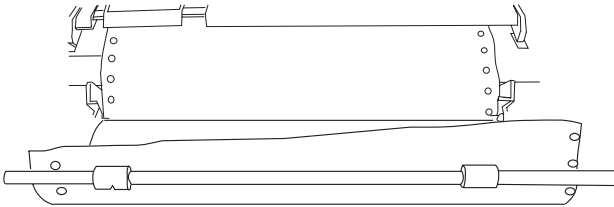
9. Insert the first sheet of continuous forms paper through the opening in the printer stand and into the bottom of the printer, gently feeding it into the printer until it appears in front of the platen, and above the bail arm.

### **Important**

Check to be sure that the matching holes on either side are engaging the sprockets (**A**). If they are not evenly matched and the paper is skewed (**B**), back the paper out and try again!

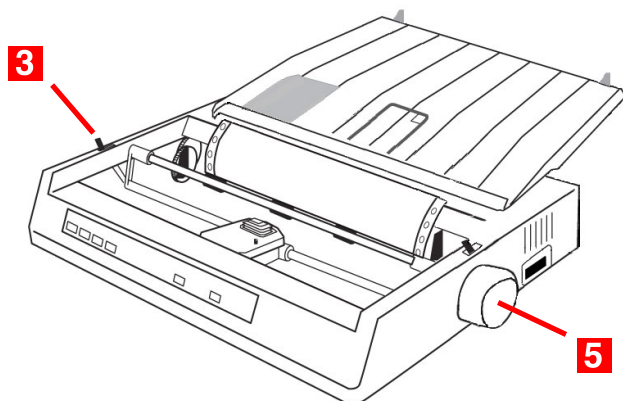


**A**



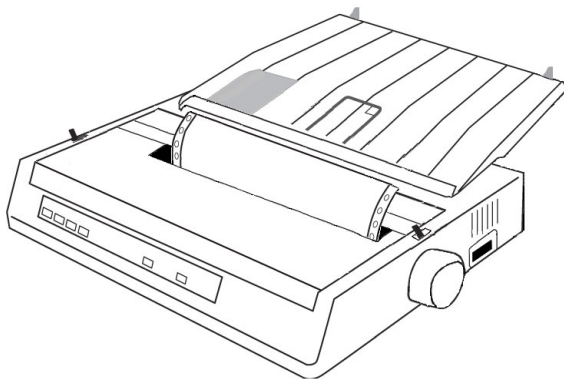
**B**

10. Move the bail arm lever (3) back to lower the bail arm.



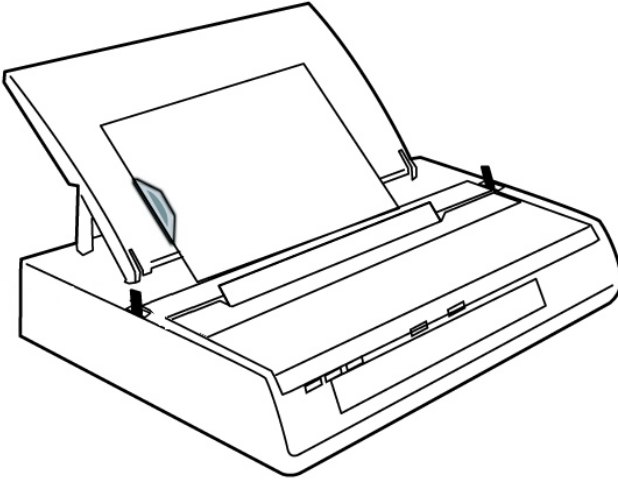
11. Use the platen knob (5) to advance the paper to the first printing line.

12. Replace the access cover, being sure to feed the edge of the paper through the slot in the cover.



13. Turn the printer on.

# Loading Single Sheets



## Note

Before printing single sheets, you must remove the Pull Tractor or Roll Paper Stand, if installed.

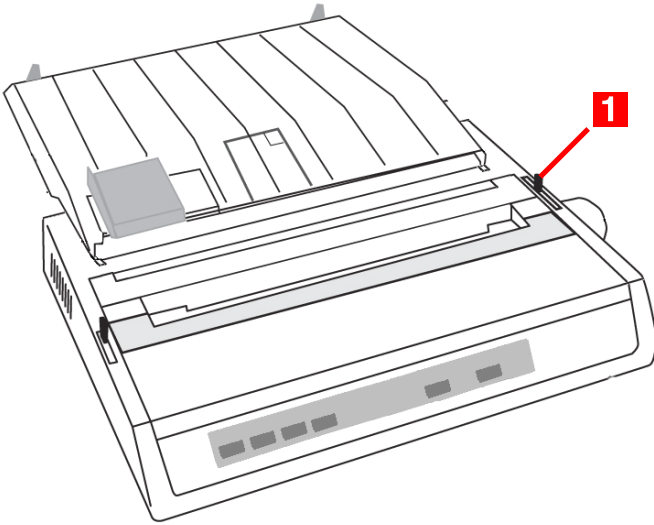
Your printer can accommodate single sheets up to 9.5 inches (241 mm) wide.

## Note

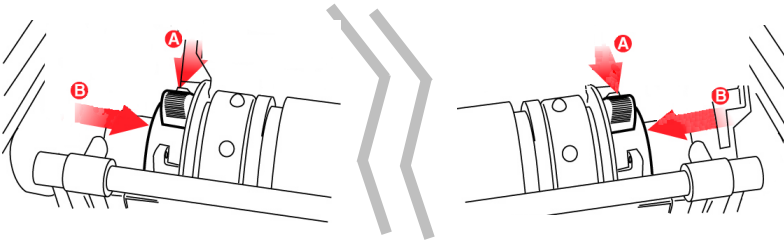
In order to use paper wider than traditional letter size, you must move the sprocket wheels to their outermost positions so that the paper does not tear on the sprockets. See the directions below.

1. Turn the printer on.

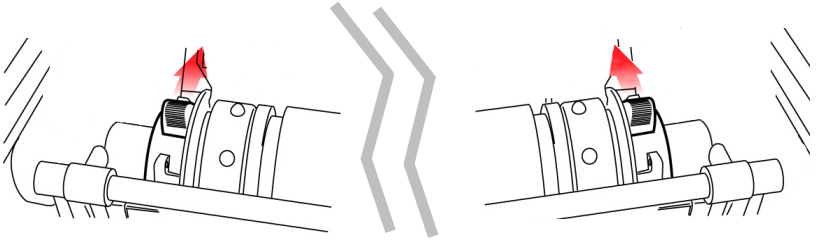
2. Move the paper lever (1) — on the right side of the printer — toward the rear of the printer, to the single sheet symbol.



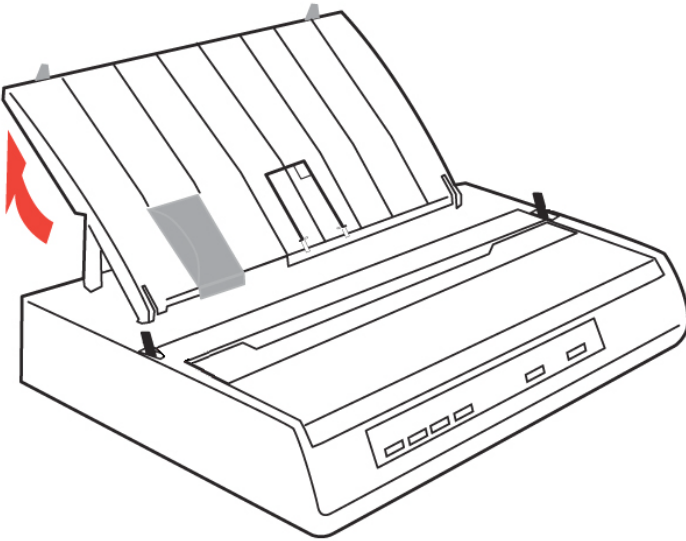
3. Ensure that the printer is *off-line* (**SELECT** light off): press **SELECT** if necessary.
4. If you are using paper wider than 8.5 inches (216 mm), move the sprocket wheels to their outermost position:
  - a. Remove the access cover.
  - b. Pull the lock levers (A) at either end forward and move the sprocket wheels (B) as needed.



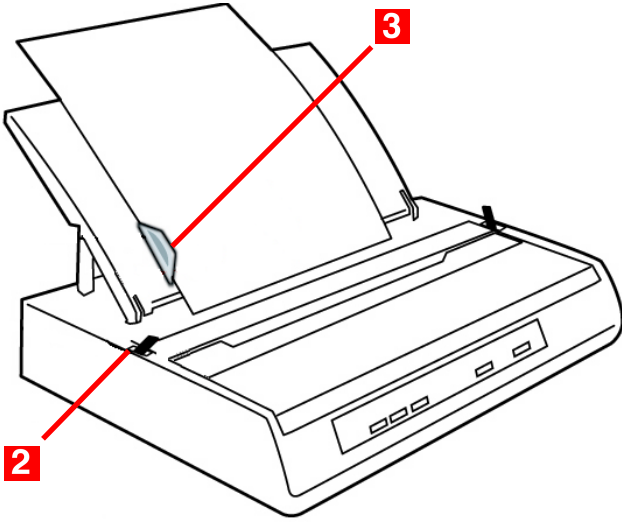
c. Push back on the levers to lock the sprocket wheels in position.



5. Raise the paper separator.

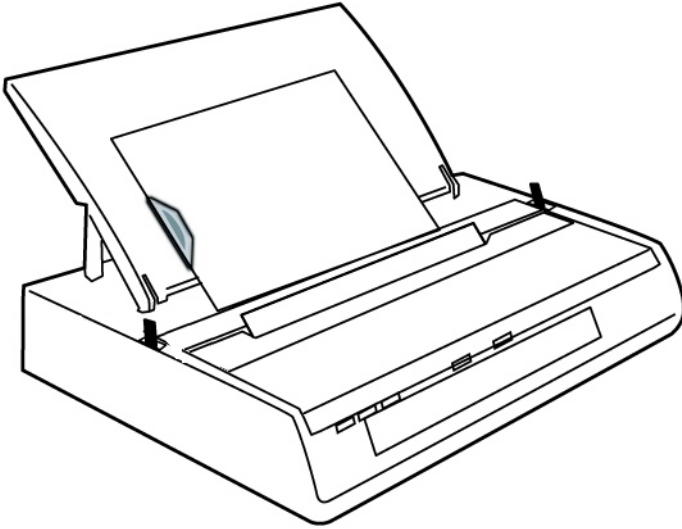


6. Adjust the sheet guide (3) on the paper separator to position the left edge of the sheet, then insert a single sheet along the guide until it reaches the pinch roller.



7. Pull the bail arm lever (2) toward the front of the printer.

8. Use the platen knob to wind the paper through to the front of the printer and adjust the top of form. Press the TOF SET button while the printer is deselected (SELECT light off) to set top of form.



9. Push back the bail arm lever, ensuring that the paper has been positioned correctly.

10. Press **SELECT** to place the printer on line.

# Testing Your Printer

Your printer has a built-in test (self test) to make sure that it is set up and working correctly.



1. Load continuous forms paper into the printer (see page 14, ff.).
2. Make sure the printer is turned off, then press and hold **LINE FEED** while turning the printer on.  
*The test print begins.*
3. To stop the test, press **SELECT** or turn the printer off.

## **Important**

The top of each test printout contains information about your printer. Be sure to have a copy of the printout handy if you have to call for service.

# Computer Connections

## USB Connection

### Notes

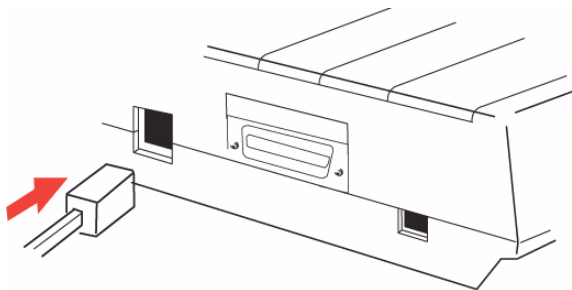
- For connection to a PC running Windows® 98 or above, but not Windows 95 upgraded to Windows 98.
- The operation of a printer is not assured if a USB compatible device is connected concurrently with other USB-compatible machines.
- When connecting multiple printers of the same type, they appear as \*\*\*\*\*, \*\*\*\*\*(2), \*\*\*\*\*(3), etc. These numbers depend on the order of connecting or turning on of each printer.
- USB is a “hot-pluggable” protocol. This means that the printer and computer do not necessarily have to be switched OFF.
- Interface cables are not supplied with your printer.

### USB Cable Requirements

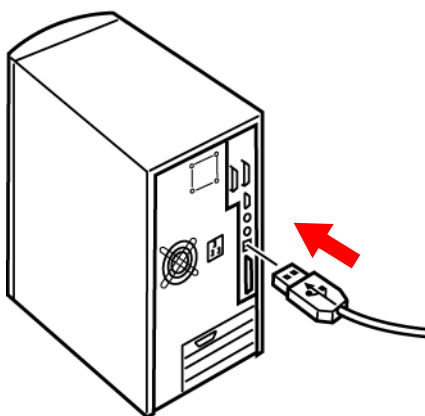


- USB 1.1 or higher
- Max. length 19.7 ft. (5 m)
- USB “B” series connector

1. Attach a suitable USB cable to the USB series “B” port on the back of the printer.



2. Connect the other end of the cable to the computer.



3. If you turned the computer and printer off, turn them back on.

# Parallel (LPT) Connection, IEEE-1284 Parallel/USB Model Only

## Notes

- Interface cables are not supplied with your printer.
- It is *not* recommended that you connect parallel and USB cables to the printer simultaneously.

## Parallel Cable Requirements



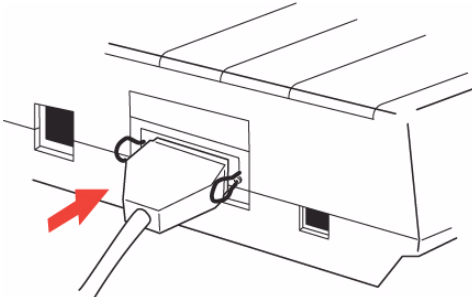
- bi-directional
- max. length 6 ft. (1.8 m)
- 36-pin Centronics type connector

## CAUTION!

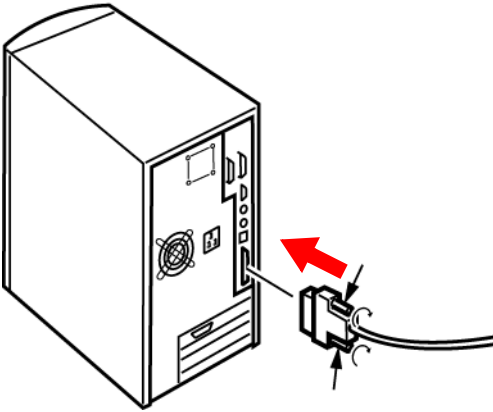
**Make sure the printer and computer are both turned OFF.**

- 1. Turn both the computer and the printer OFF.**

2. Attach a suitable bi-directional cable to the parallel connector on the back of the printer and secure it with the wire loops.



3. Attach and secure the cable to your computer.



4. Turn the printer and computer back on.

## Serial (COM) Connection, RS-232C Serial/USB Model Only

### Notes

- Interface cables are not supplied with your printer.
- It is *not* recommended that you connect serial and USB cables to the printer simultaneously.
- When the serial interface is installed the parallel port is disabled.

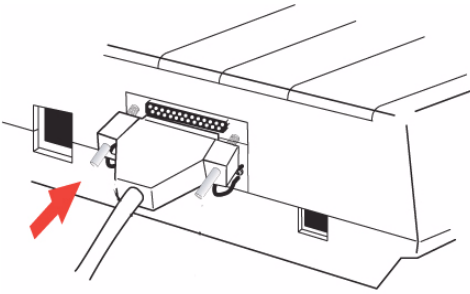
## Serial Cable Requirements:

- Shielded RS-232C cable, UL and CSA approved
- Max. length 50 ft. (15 m)
- 25-pin serial connector.

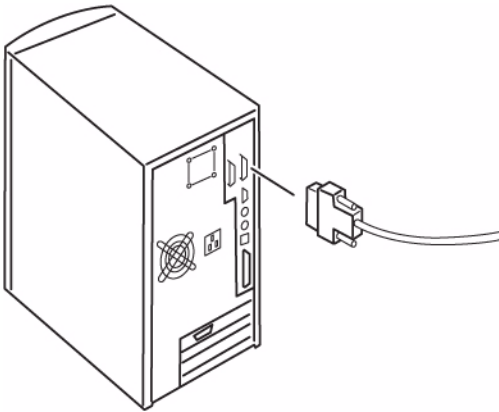
### CAUTION!

Make sure the printer and computer are both turned OFF.

1. Switch both the computer and the printer OFF.
2. Plug the cable into the serial port on the back of the printer and tighten the screws.



3. Plug the cable into the computer and tighten the thumbscrews.



4. Turn the printer and computer back on.

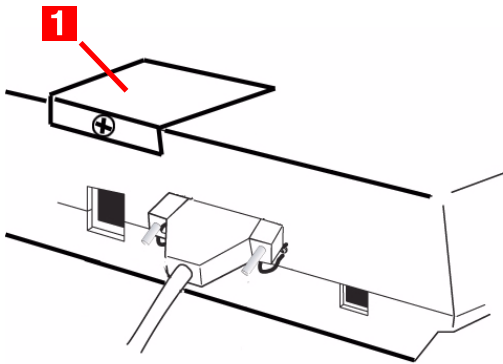
# Setting the Serial Interface Parameters

## Note

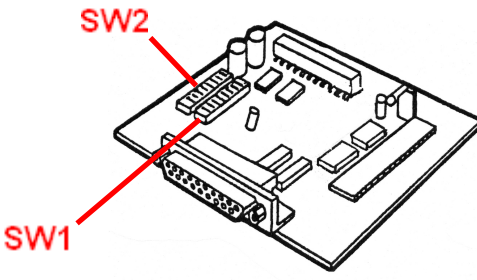
See underlined items in the table on page 37 for a list of the serial interface defaults.

To change the settings for the serial interface, use the two banks of switches on the serial interface board:

1. Turn the printer off.
2. Use a Phillips bit screwdriver to remove the serial switch access cover (1) at the back of the printer:



3. Make any needed changes in the switch banks (**SW1** and **SW2**), See the tables below.



4. Reinstall the access cover and turn the printer on.

## Serial Interface Parameters

**Note:** Defaults are underlined.

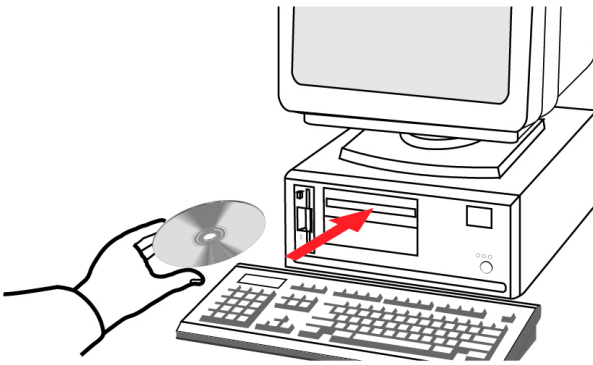
| Switch Bank 1  |   | Switch Bank 2  |   |
|--|---|--|---|
| <b>Parity Type</b><br><u>Odd Parity</u><br>Even Parity                                       | <b>Switch 1</b><br><u>ON</u><br>OFF                                     | <b>Transmission Speed</b><br>19,299 bps<br><u>9,600 bps</u><br>4,800 bps<br>2,400 bps<br>1,200 bps<br>600bps<br>300 bpc<br>110 bps | <b>Switches 1, 2</b><br>ON, ON, ON<br><u>OFF, ON, ON</u><br>ON, OFF, ON<br>OFF, OFF, ON<br>ON, ON, OFF<br>OFF, ON, OFF<br>ON, OFF, OFF<br>OFF, OFF, OFF |
| <b>Parity</b><br><u>No parity</u><br>With parity   | <b>Switch 2</b><br><u>ON</u><br>OFF                                     | <b>DSR Input Signal</b><br><u>Active</u><br>Inactive   | <b>Switch 4</b><br><u>ON</u><br>OFF   |
| <b>Data Bits</b><br><u>8 bits</u><br>7 bits  | <b>Switch 3</b><br><u>ON</u><br>OFF                                     | <b>Buffer Threshold</b><br><u>32 bytes</u><br>256 bytes  | <b>Switch 5</b><br><u>ON</u><br>OFF   |
| <b>Protocol</b><br><u>ReadyBusy</u><br>X-ON/X-OFF  | <b>Switch 4</b><br><u>ON</u><br>OFF                                     | <b>Busy Signal Timing</b><br><u>200 ms minimum</u><br>1 second minimum   | <b>Switch 6</b><br><u>ON</u><br>OFF   |
| <b>Test Select</b><br><u>Circuit</u><br>Monitor  | <b>Switch 5</b><br><u>ON</u><br>OFF                                     | <b>DTR Signal</b><br><u>Space after power on</u><br>Space when printer<br>selected   | <b>Switch 7</b><br><u>ON</u><br>OFF   |
| <b>Mode Select</b><br><u>Print mode</u><br>Test mode   | <b>Switch 6</b><br><u>ON</u><br>OFF                                     | <b>Not Used</b>  | <b>Switch 8</b>   |
| <b>Busy Line Selection</b><br><u>SSD- Pin 11</u><br>SSD+ Pin 11<br>DTR- Pin 20<br>RTS- Pin 4 | <b>Switches 7, 8</b><br><u>OFF, ON</u><br>OFF, OFF<br>ON, ON<br>ON, OFF |  |   |

# Setting up the Printer to Work with Your Computer

## Note

- Settings made in your software application normally override settings made in your printer driver.
- Settings made in the printer driver normally override settings made in the printer menu or via the front panel.

## Windows XP, 2000, Me, 98, 95, NT 4.0: Install the Printer Driver



To print from a Windows-based system, install the printer driver located in the Drivers folder on the CD supplied with your printer. This driver incorporates commands which use the full capability of the printer and automatically switches the printer to the correct emulation regardless of which emulation is selected in the printer menu.

1. Place the CD in your CD-ROM drive.
2. Click **Start** → **Settings** → **Printers**.

3. Click **Add Printer**.

*The Add Printer Wizard appears.*

4. Follow the on-screen instructions.

5. When you get to the window which asks you to select the manufacturer and model of your printer, click **Have Disk**, then browse to the appropriate directory on the CD and double click the inf file:

| <b>Windows Version</b> | <b>.inf File Location</b>              |
|------------------------|--|
| XP                     | \Drivers\WinXP\English\Oemprint.inf    |
| 2000                   | \Drivers\Win2k\English\Oemprint.inf    |
| 98                     | \Drivers\Win98_Me\English\Oemsetup.inf |
| Me                     | \Drivers\Win98_Me\English\Oemsetup.inf |
| 95B [OSR2]             | \Drivers\Win95\English\Oemsetup.inf    |
| NT 4.0                 | \Drivers\NT40\English\Printer.inf      |

6. Follow the on-screen instructions to finish loading the driver.

## **Non-Windows Systems: Set the Emulation in the Printer Menu**

Your printer has three emulations:

- IBM® 2480 — the factory default
- Epson® ESC/P2
- Oki Data® MICROLINE® Standard

If you are using a non-Windows system such as LINUX®, a non-Windows application such as a DOS® program, or an older application such as Word Perfect® 5.1, you need to make sure you have the correct emulation selected in the printer menu (see “Changing the Emulation Default in the Printer Menu” below). If

you have the wrong emulation selected, you will see strange characters, incorrect fonts, etc.

### **Important**

See your software documentation for information on how to select an emulation in that application.

If you are directly replacing a MICROLINE ML184 Turbo or ML184 printer with the ML186, you must make sure that the printer menu on your new ML186 is set to match the emulation being used for the existing printer (see “Changing the Emulation Default in the Printer Menu” below).

### **For Non-Windows Applications**

Your printer is compatible with the emulations listed in the table below and will function properly with software developed for them. To make full use of the ML186 printer’s features, use the top entry for the applicable emulation (e.g., IBM 2480). Entries further down (e.g., IBM Graphics Printer Plus, IBM Graphics Printer) work well with the printer, but do not provide full use of the printer’s capabilities.

| <b>ML186 Emulation Mode</b> | <b>Compatible Printers/Drivers</b>                            |
|-----------------------------|---|
| IBM                         | IBM 2480<br>IBM Graphics Printer Plus<br>IBM Graphics Printer |
| Epson                       | Epson ESC/P2<br>Epson LX Plus<br>Epson LX                     |
| ML                          | Okidata MICROLINE Standard                                    |

# Changing the Emulation Default in the Printer Menu

The default for the emulation in the printer menu is IBM. If you wish to change the menu default to another emulation:

1. Make sure continuous forms paper is loaded.
2. Turn the printer off.
3. Press and hold **SELECT** while turning the printer back on.  
*The printer enters the menu mode.*

4. Press **FORM FEED**.  
*The first line of the menu prints, showing the emulation engaged. For example:*

```
Printer Control   Emulation Mode   IBM
```

5. Press **TOF SET** once or twice until the emulation you wish to engage appears in the right-hand column.  
*Each time you press TOF SET, a new line prints and the setting which appears in the last column changes. For example:*

```
Printer Control   Emulation Mode   Epson  
Printer Control   Emulation Mode   ML
```





6. Press **PITCH** and **MODE** together to save your setting and exit the printer menu.


# Operating Your Printer

## Front Panel Operation









## Front Panel Lights

| LED  | Status, Function   |
|--|--|
|    | <p><i>On</i> = Printer is on line.<br/><i>Off</i> = Printer is off line.<br/><i>Flashing</i> = flashes with <b>ALARM</b> light to indicate a fault has been detected.</p>  |
|    | <p><i>On</i>, <b>SELECT</b> light <i>off</i> = paper out.<br/><i>On</i>, <b>SELECT</b> light <i>flashing</i> = auto diagnostics have detected an error.<br/><i>Flashing</i>, <b>SELECT</b> light <i>on</i> = printer has overheated. Normal print operation will resume only after a cooling period.</p> |
|  | <p><i>On</i> = printer is turned on.<br/><i>Off</i> = printer is turned off.</p>   |
|  | <p>The one lit indicates which character pitch—in characters per inch (cpi)—is engaged.</p>  |

| LED  | Status, Function  |
|--|---|
|  The image shows three green LEDs on a grey background. The top LED is labeled 'NLQ', the middle one 'UTILITY', and the bottom one 'HSD'. Each LED is a small horizontal bar with a white outline. | <p>The one lit indicates which print mode is engaged:</p> <p><b>NLQ</b> = Near Letter Quality</p> <p><b>UTILITY</b> = Draft mode</p> <p><b>HSD</b> = High Speed Draft mode, or SSD (Super Speed Draft) if 12 cpi is selected.</p> |

# Front Panel Buttons

| Button   | Print Mode  | Menu Mode   | Held at Power Up  |
|--|---|---|---|
|    | Advances the paper one line   | Scrolls through the printer menu groups.                    | Initiates printer Self Test (see page 59).<br><b>LINE FEED + SELECT</b> = Initiates Rolling ASCII test (see page 60). |
|    | Advances the paper to the next top of form or ejects single sheet from the printer. | Scrolls through the items for each menu group.              | <b>FORM FEED + SELECT</b> = Places printer in hex dump mode (see page 60).  |
|    | Sets a new top of form (TOF) position.  | Scrolls through the settings for each item within a group.  | Sets printer to 17 cpi.   |
|   | Toggles the printer on and off line.  | Prints list of current menu settings.                       | Places printer in Menu Mode.  |
|  | Selects the character pitch setting (cpi).  | <b>PITCH + MODE</b> = save settings and exit to print mode. | Not applicable.   |
|  | Sets print mode (NLQ, Utility, HSD).  | <b>PITCH + MODE</b> = save settings and exit to print mode. | Not applicable.   |

# Setting Printer Defaults

The printer has an internal menu containing a number of default parameters which can be set to enable your printer to match the parameters required by your computer.

## Using the Menu Mode

### Entering the Menu Mode

To enter the Menu Mode, press **SELECT** while turning on the printer.

*The 12 and UTILITY LEDs flash.*

### Printing a List of Current Menu Settings

With the printer in the Menu Mode, press **SELECT** to print the complete menu.

*The current default settings print out.*



## Changing Menu Settings

1. Press **SELECT** while turning on the printer.
2. Change settings:
  - a. Press **LINE FEED** to select the relevant group that needs to be changed (the group is the left-hand column on the Menu printout).
  - b. Press **FORM FEED** to select the relevant item within the selected group (the Item is the center column on the Menu printout).
  - c. Press **TOF SET** to cycle through the settings available for the item you want to change (the settings are the right-hand column on the Menu printout).
  - d. To continue making changes:
    - press **LINE FEED** for the next *group*
    - or
    - press **FORM FEED** for the next *item*.
3. Repeat the previous step until you are finished changing settings.
4. Press **PITCH** and **MODE** together to save the changes you have made and exit the Menu Mode.

### **Important**

Exiting the Menu Mode by turning off the printer will cancel any changes you have made.

## For Example

The default setting for the zero character is slashed. To change the setting to unslashed:

1. Press and hold **SELECT** while turning the printer on.

The following line prints:

```
Printer Control Emulation Mode      IBM
```

2. Press **LINE FEED** several times until the Symbol Sets group line appears:

```
Symbol Sets      Character Set      SetI
```

3. Press **FORM FEED** repetitively until the Zero Character item line appears:

```
Symbol Sets      Zero Character      Slashed
```

4. Press **TOF SET** once.

The following line prints:

```
Symbol Sets      Zero Character      Unslashed
```

5. Press **PITCH** and **MODE** together to save the setting and exit the Menu Mode.

# Default Menu Selections

Default settings are indicated in bold italic.

| Group           | Item                 | Setting   |
|-----------------|----------------------|---|
| Printer Control | Emulation Mode       | <b>IBM</b> , Epson, ML  |
| Font            | Print Mode           | <b>Utility</b> , NLQ Courier, NLQ Gothic, Draft   |
| (Font)          | DRAFT Mode           | HSD, <b>SSD</b>   |
| (Font)          | Pitch                | <b>10 CPI</b> , 12 CPI, 15 CPI, 17.1 CPI, 20 CPI  |
| (Font)          | Proportional Spacing | <b>No</b> , Yes   |
| (Font)          | Style                | <b>Normal</b> , Italics   |
| (Font)          | Size                 | <b>Single</b> , Double<br><u>Selects both double width and double height characters or single width and single height characters.</u> |

| <b>Group</b>       | <b>Item</b>                                       | <b>Setting</b>  |
|--------------------|---|---|
| Symbol Sets        | Character Set                                     | <b>Set I</b> , Set II, Standard, Line Graphics, Block Graphics (ML mode only)   |
| (Symbol Sets)      | Language Set                                      | <b>American</b> , French, German, British, Danish I, Swedish, Italian, Spanish I, Japanese, Norwegian, Danish II, Spanish II, Latin American, French Canadian, Dutch, Publisher |
| (Symbol Sets)      | Zero Character                                    | <b>Slashed</b> , Unslashed  |
| (Symbol Sets)      | Code Page   | <b>USA</b> , Canada French, Multilingual, Portugal, Norway, BRASCII, Abicomp, Multilingual 858, ISO8859-15  |
| Vertical Control   | Line Spacing                                      | <b>6 LPI</b> , 8 LPI  |
| (Vertical Control) | Skip Over Perforation                             | <b>No</b> , Yes   |
| (Vertical Control) | Page Length                                       | <b>11"</b> , 11-2/3", 12", 14", 17", 5", 3", 3.25", 3.5", 4", 5.5", 6", 7", 8", 8.5"  |
| Set-Up             | Graphics  | Bi-directional, <b>Uni-directional</b>  |
| (Set-Up)           | 7 or 8 Bits Graphics<br><u>ML emulation only.</u> | <b>8</b> , <b>7</b>   |
| (Set-Up)           | Receive Buffer Size                               | 1 Line*, 32K, <b>64K</b> , 128K<br><u>* When 1 Line is selected, the receive buffer size is 2K bytes.</u>   |
| (Set-Up)           | Paper Out Override                                | <b>No</b> , Yes   |

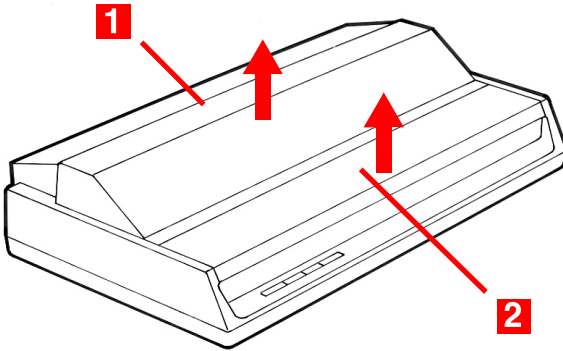
| <b>Group</b> | <b>Item</b>  | <b>Setting</b>   |
|--------------|--|--|
| (Set-Up)     | Print Registration                                 | 0.25 mm Right, 0.20 mm Right, 0.15 mm Right, 0.10 mm Right, 0.05 mm Right, <b>0</b> , 0.05 mm Left, 0.10 mm Left, 0.15 mm Left, 0.20 mm Left, 0.25 mm Left   |
| (Set-Up)     | 7 or 8 Bits Data Word<br><u>ML emulation only.</u> | <b>8</b> , 7   |
| (Set-Up)     | Operator Panel Function                            | <b>FULL OPERATION</b> , Semi Operation*, Limited Operation<br><u>* When Limited Operation is selected, after exiting the Menu, only the SEL, LINE FEED and FORM FEED buttons operate. The PRINT QUALITY, TOF and PITCH buttons are inactive.</u> |
| (Set-Up)     | Reset Inhibit                                      | <b>No</b> , Yes  |
| (Set-Up)     | Print Suppress Effective                           | No, <b>Yes</b>   |
| (Set-Up)     | Auto LF  | <b>No</b> , Yes  |
| (Set-Up)     | Auto CR  | No, <b>Yes</b>   |
| (Set-Up)     | SI Select Pitch (10 CPI)                           | 15 CPI, <b>17.1 CPI</b>  |
| (Set-Up)     | SI Select Pitch (12 CPI)                           | <b>12 CPI</b> , 20 CPI   |
| (Set-Up)     | Time Out Print                                     | Valid, <b>Invalid</b>  |
| (Set-Up)     | Auto Select  | <b>No</b> , Yes  |
| (Set-Up)     | ESC SI Pitch                                       | <b>17.1 CPI</b> , 20CPI  |

| Group  | Item         | Setting                                     |
|--|--------------|---|
| (Set-Up)   | Impact Mode  | <b>Normal</b> , Quiet                       |
| Parallel I/F<br><u>Only appears for printers equipped with Parallel Interface.</u> | I-Prime      | Invalid, <b>Buffer Print</b> , Buffer Clear |
| (Parallel I*/F)  | Pin 18       | <b>+5v</b> , Open                           |
| (Parallel I*/F)  | Auto Feed XT | Valid, <b>Invalid</b>                       |
| (Parallel I/F)   | Bi-Direction | <b>Enable</b> , Disable                     |

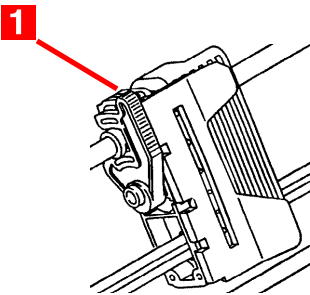
# Using the Pull Tractor Unit (if installed)

Paper can be loaded from the rear of the printer or, if you have a slotted printer stand, it can be loaded from the bottom.

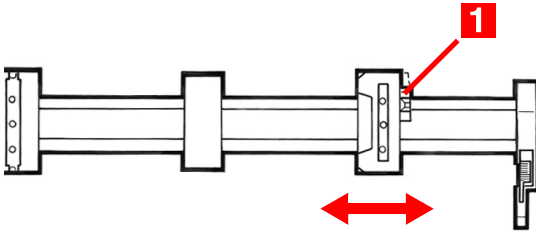
1. Remove the acoustic cover (1) and access cover (2).



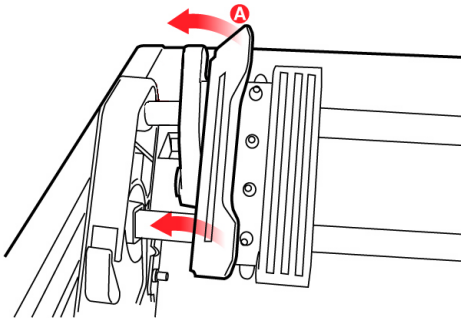
2. Adjust the left tractor if necessary, *making sure that it is not more than ½-inch (12.7 mm) from the left end of the tractor unit.* To move the tractor, pull the lock lever (1) forward, slide the tractor to the desired position, then push the lever back to lock it in place.



3. Adjust the right tractor to the paper width by pulling its lock lever (1) forward, sliding the tractor to the desired position, then pushing the lever back to lock it in place.

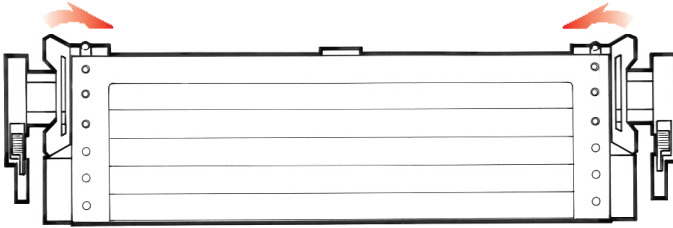


4. Pull the paper under the bail arm and up to the level of the tractor unit.
5. Open the sprocket covers (A) at either end of the pull tractor.



6. Pull the paper lever (on the right side of the printer) forward to the continuous forms position.

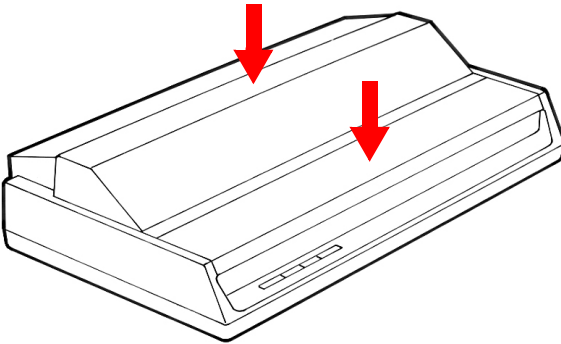
7. Place the holes in the paper over the sprockets on the pull tractor unit and close both sprocket covers.



### Note

Be careful to align the paper properly so that an equal number of holes are engaged on the sprockets at either end of the pull tractor. Misalignment will cause paper jams and/or ripping.

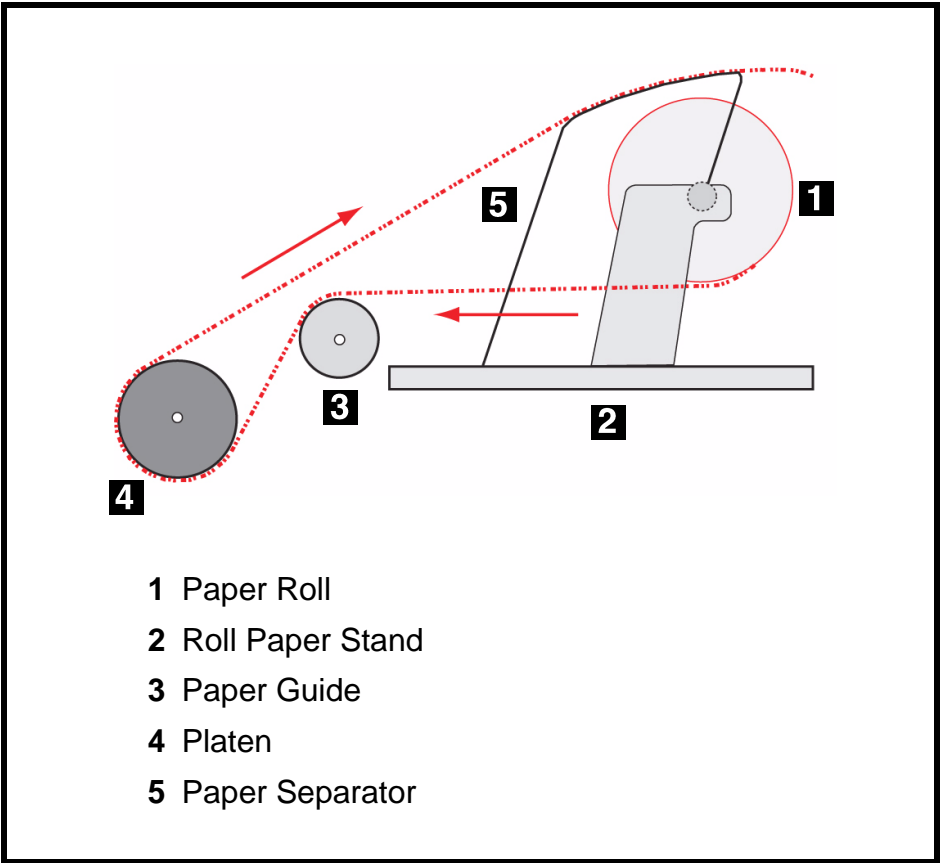
8. Replace the access cover and acoustic cover.



# Using the Roll Paper Stand (if installed)

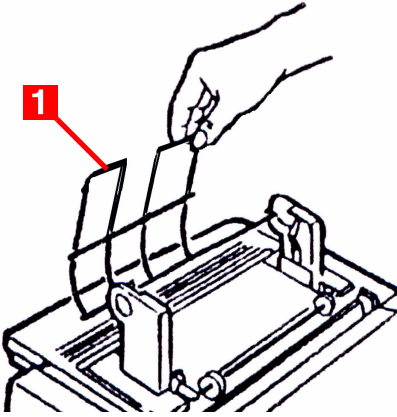
## Loading the Paper

### Correct Paper Path

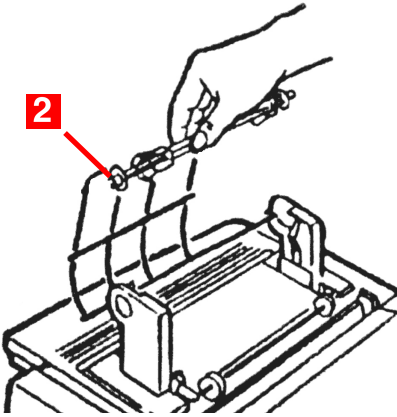


1. Remove the access cover from the printer.
2. Place the paper lever (right side of printer) in the single sheet position (back) and the bail arm lever (left side of printer) toward the front of the printer (bail arm raised away from platen).

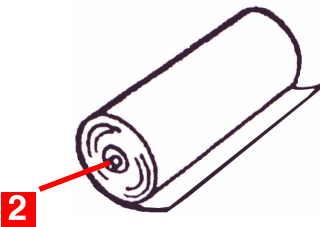
3. Open the paper separator (1).



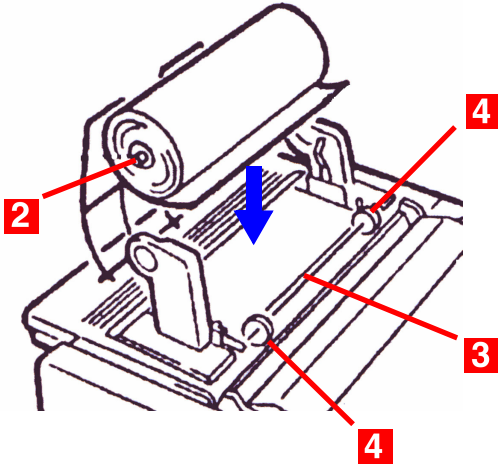
4. Remove the paper roller. Note that there is a disk (2) on the left end of the roller.



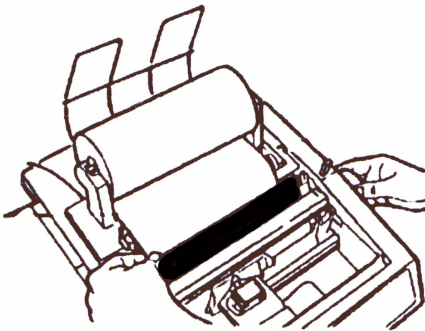
5. Slide the roller into a roll of paper, making sure that the disk (2) is on the left side and that the paper rolls up from the bottom.



- Put the paper roller back into the stand, with the disc (2) on the left side.



- Feed the paper **over** (not under!) the roller (3) on the stand, adjusting the round paper guides on either end (4) to the paper width.
- Feed the paper down behind the platen and use the platen knob to bring the paper through the printer. Feed the paper in as straight as possible.



- Continue to feed the paper through for approximately 4 inches (102 mm).

10. Pull the paper lever (right side of printer) toward the front of the printer—to the continuous forms position—and make sure the paper is straight by adjusting it to align the left and right sides behind the platen with the sides in front of the platen.

### **Important**

Be sure that the paper covers the groove in the left end of the platen so that it clears the paper out detector.

11. Push the paper lever back to the single sheet position to reapply pressure on the platen.
12. Push the bail arm lever (left side of printer) back to close the bail arm.
13. Replace the access cover:
  - a. Fit the cover tabs into the slots at the printer front.
  - b. Lower the cover carefully, making sure the paper fits through the front slot in the access cover.
14. Lower the paper separator so that paper enters the printer from under the separator and exits the printer going over the separator (see “Correct Paper Path” diagram on page 56).
15. Turn the platen knob to move the paper to the point where you want printing to start. (Many word processing packages automatically allow for a top margin of 1 inch [25 mm]).

### **Note**

To save this position as the permanent Top of Form, press the TOF button.

# Maintenance

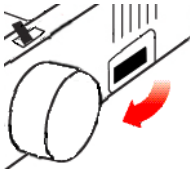
## Replacing the Ribbon Cartridge

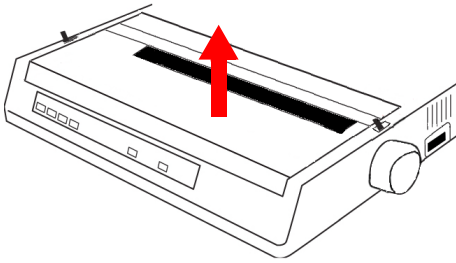
For more details, see page 7.

### **WARNING!**

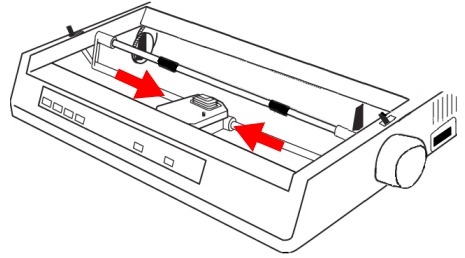
If the printer has been recently used, the printhead may be **HOT!**

- 1** Turn the printer **off!**

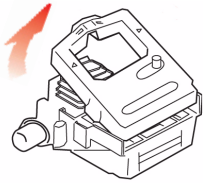




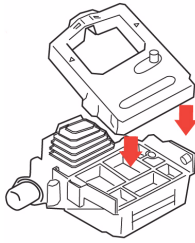
**2**



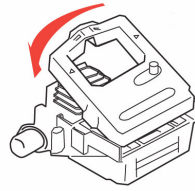
**3**



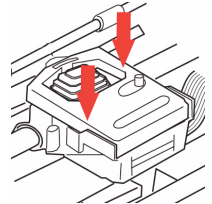
**4**



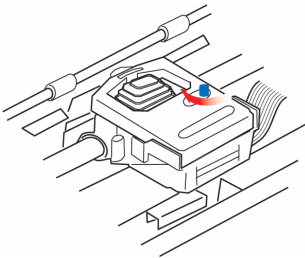
**5**



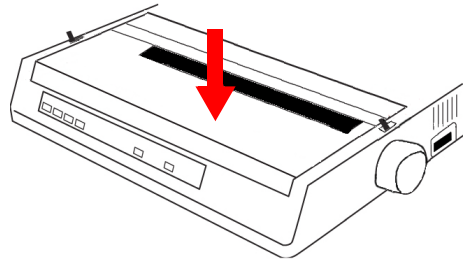
**6**



**7**



**8**



**9**

# Testing Your Printer

## Self Test (Font Samples)

Your printer has a built-in test (self test) to make sure that it is set up and working correctly.



1. Load continuous forms paper into the printer (see page 14, ff.).
2. Make sure the printer is turned off, then press and hold **LINE FEED** while turning the printer on.  
*The test print begins.*
3. To stop the test, press **SELECT** or turn the printer off.

### Note

The top of each test printout contains information about your printer. Be sure to have a copy of the printout handy if you have to call for service.

# Rolling ASCII Test

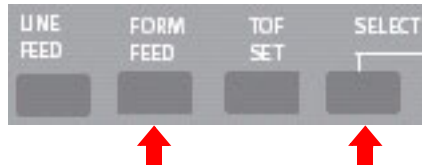
The Rolling ASCII Test produces a continuous sampling of ASCII characters using the default type style. To run the test:



1. Make sure continuous forms paper is loaded.
2. With the printer turned off, press and hold **SELECT** and **LINE FEED** while turning the printer on.  
*The Rolling ASCII Test begins.*
3. To stop the test, press **SELECT** or turn the printer off.

# Hex Dump Mode

In Hex Dump Mode, all data sent to the printer, including text and printer commands, prints in both hexadecimal and ASCII format.



- To place the printer in the Hex Dump Mode, press and hold **SELECT** and **FORM FEED** while turning the printer on.
- To disengage the Hex Dump Mode, turn the printer off, then on again.

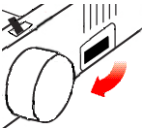
# Cleaning the Housing

## CAUTION!

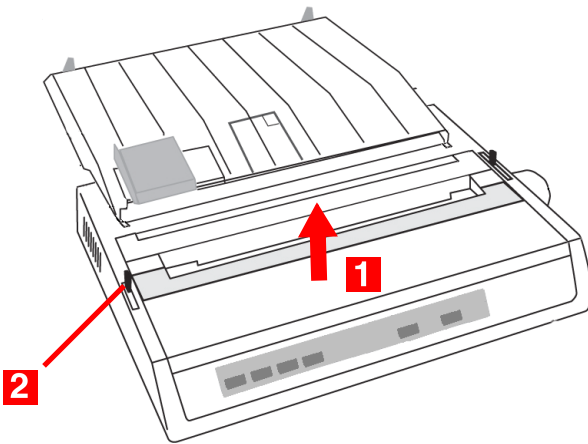
Never use solvents or strong detergents on the cabinet: they could damage the housing.

You should clean the printer every six months (or after about 300 hours of operation).

1. Turn the printer **off**.



2. Remove any paper from the path.
3. Remove the access cover. **(1)**



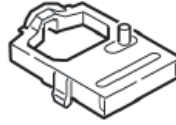
4. Pull the bail arm lever **(2)** forward to lift the bail arm.
5. Use a clean, dry cloth to dust around the carriage shaft and platen.
6. Remove any loose bits of paper.

7. Push the bail arm lever back and reinstall the access cover.
8. Reload paper.
9. Turn the printer on.

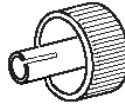
# Parts & Options

## Replacement Parts

**Ribbon Cartridge  
(Oki 52102001)**



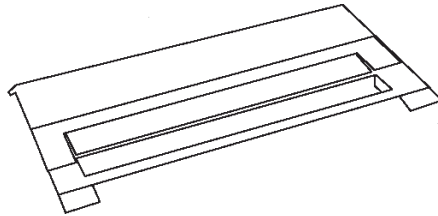
**Platen Knob  
(Oki 53459807)**



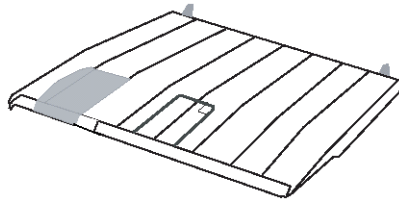
**Power Cord  
(Oki 56609701)**



**Access Cover  
(Oki 53467410)**



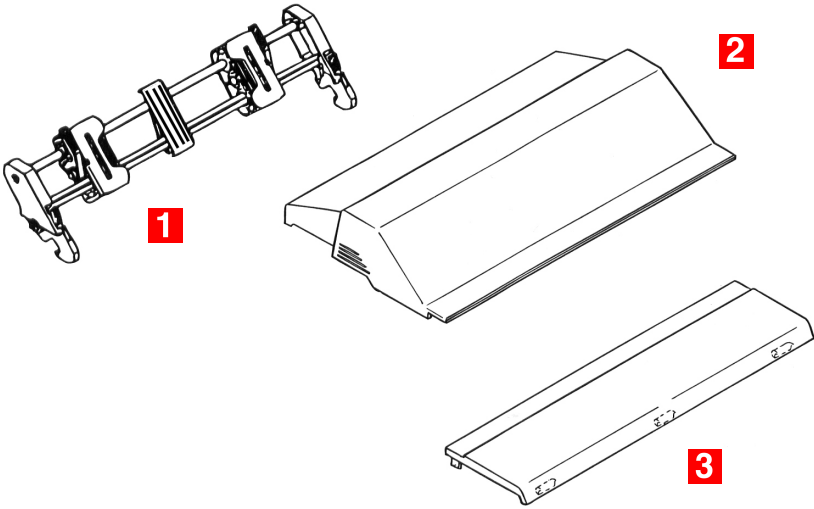
**Paper Separator  
(Oki 53459303)**



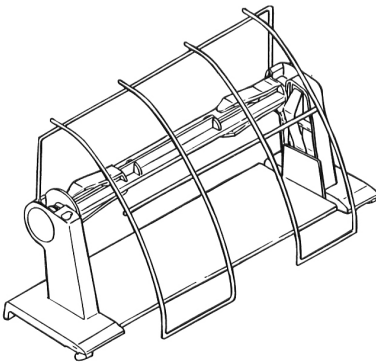
# Options

## Pull Tractor (Oki 70009701)

Includes Pull Tractor (1), Acoustic Cover (2) and Access Cover (3).



## Roll Paper Stand (Oki 70007701)



# Specifications

## General

|  |   |
|--|---|
| <b>Print Method</b>  | Impact dot matrix   |
| <b>Printhead</b>   | 9 pins, 0.30 mm (0.0118") diameter, with thermal protection |
| <b>Emulations (co-resident)</b>  | IBM 2480<br>Epson ESC/P2<br>Okidata MICROLINE Standard      |
| <b>Print Speed, characters per second (cps)</b><br>Super Speed Draft (SSD)<br>High Speed Draft (HSD)<br>Utility (UTL)<br>Near Letter Quality (NLQ) | 375 cps (12 cpi only)<br>333 cps<br>250 cps<br>62.5 cps     |
| <b>Buffer size</b>   | 128 Kb  |

# Paper

| Type   | Feed        | Weight   | Width                           |
|--|-------------|--|---------------------------------|
| Cut Sheets   | Top only    | 16 to 21 lb.<br>US Bond<br>(60 to 81<br>g/m <sup>2</sup> ) | 3" to 9.5"<br>(76 to<br>241 mm) |
| Continuous, Single Part  | Rear/Bottom | 14 to 20 lb.<br>US Bond<br>(53 to 75<br>g/m <sup>2</sup> ) | 3" to 9.9"<br>(76 to<br>251 mm) |
| Continuous, Multipart <ul style="list-style-type: none"><li>• 4 sheets (orig.+3),<br/>Carbonless</li><li>• Up to 0.11" (0.28 mm)<br/>thick</li></ul> | Rear/Bottom | 14 to 20 lb.<br>US Bond<br>(53 to 75<br>g/m <sup>2</sup> ) | 3" to 9.9"<br>(76 to<br>251 mm) |

# Reliability

|  |  |
|--|--|
| <b>Ribbon Life</b>                       | 3 million characters, on average                         |
| <b>Printhead Life</b>                    | 200 million characters average in<br>10 cpi utility mode |
| <b>Mean Time Between Failures (MTBF)</b> | 20,000 hours at 25% duty cycle<br>and 35% page density   |
| <b>Mean Time to Repair (MTTR)</b>        | 15 minutes   |

# Physical

|               |                  |
|---------------|------------------|
| <b>Height</b> | 3.15" (80 mm)    |
| <b>Width</b>  | 14.65" (372 mm)  |
| <b>Depth</b>  | 10.83" (275 mm)  |
| <b>Weight</b> | 9.9 lb. (4.5 Kg) |

# Electrical

|                  |                                     |
|------------------|-------------------------------------|
| <b>Voltage</b>   | 120V, +6%, -15%<br>230V, +15%, -14% |
| <b>Frequency</b> | 50 or 60 Hz, $\pm 2\%$              |

# Environmental

|  |  |
|--|--|
| <b>Temperature</b><br>Operating<br>Storage | 41 to 104°F (5 to 40°C)<br>-40 to 158°F (-40 to +70°C)   |
| <b>Humidity</b><br>Operating<br>Storage    | 20 to 80% RH<br>5 to 95% RH                              |
| <b>Noise level</b>                         | Normal: Less than 54 dBA<br>Quiet Mode: Less than 51 dBA |

# Interfaces

|                        |   |
|------------------------|---|
| <b>Parallel Models</b> | Centronics Parallel, IEEE-1284 compliant<br>USB 1.1 |
| <b>Serial Models</b>   | RS-232C Serial<br>USB 1.1                           |

# Index

## A

- Access cover
  - replacement # .....66
- ALARM light .....42

## B

- Bail arm .....14
- Bail arm lever .....14
- Bottom feed paper
  - loading .....21–24
- Buffer size .....68
- Buttons, front panel .....44

## C

- Caution boxes .....4
- Cleaning the housing .....64
- Computer connections
  - parallel .....33–34
  - serial .....34–35
  - USB .....31
- Continuous forms
  - loading
    - bottom feed .....21–24
    - rear feed .....16–20
  - specifications .....69
- Cut sheet paper .....69

## D

- Default
  - menu settings .....49
- Defaults .....45–46
  - menu mode .....51–52
- Dimensions .....70
- Drivers, printer .....38

## E

- Electrical specifications .....70
- Emulations .....39, 68
- Environmental specifications ....70

## F

- FORM FEED button .....44
- Frequency .....70
- Front panel .....42–44
  - buttons .....44
  - lights .....42–43

## G

- Gap, printhead .....11

## H

- Head gap .....11
  - lever .....14
- Hex dump mode .....63
- Humidity specifications .....70

## I

- Important boxes .....4
- Interfaces
  - parallel .....71
  - serial .....71
  - USB .....71
- I-Prime .....52

## K

- Knob, platen .....10

## L

- LEDs, front panel .....42–43
- Levers .....14
- Lights, front panel .....42–43
- LINE FEED button .....44
- Loading paper .....14–26, 28–29
- Location .....5

|                                  |              |
|----------------------------------|--------------|
| <b>M</b>                         |              |
| Menu                             |              |
| changing settings .....          | 47–48        |
| default settings .....           | 51–52        |
| defaults .....                   | 46           |
| settings .....                   | 45           |
| settings, changing .....         | 47           |
| Menu mode .....                  | 45–52        |
| MODE button .....                | 44           |
| Mode lights .....                | 43           |
| <b>N</b>                         |              |
| Noise level specifications ..... | 70           |
| Notes .....                      | 4            |
| <b>O</b>                         |              |
| Options                          |              |
| pull tractor .....               | 67           |
| roll paper stand .....           | 67           |
| <b>P</b>                         |              |
| Paper lever .....                | 14           |
| Paper loading                    |              |
| continuous forms .....           | 14–24        |
| bottom feed .....                | 21–22        |
| rear feed .....                  | 16–20        |
| single sheets .....              | 25–26, 28–29 |
| Paper separator                  |              |
| installing .....                 | 12           |
| replacement # .....              | 66           |
| Paper specifications .....       | 69           |
| Parallel                         |              |
| computer connection .....        | 33–34        |
| interface menu settings .....    | 52           |
| PITCH button .....               | 44           |
| PITCH lights .....               | 42           |
| Platen knob .....                | 10           |
| replacement # .....              | 66           |
| Power connection .....           | 13           |
| Power cord                       |              |
| replacement # .....              | 66           |
| POWER light .....                | 42           |
| Print speed .....                | 68           |
| Printer                          |              |
| defaults .....                   | 45           |
| dimensions .....                 | 70           |
| drivers .....                    | 38           |
| emulations .....                 | 39           |
| reliability .....                | 69           |
| weight .....                     | 70           |
| Printhead .....                  | 66           |
| gap .....                        | 11           |
| life .....                       | 69           |
| shipping restraint .....         | 6            |
| specifications .....             | 68           |
| Pull tractor .....               | 67           |
| using .....                      | 53, 55       |
| <b>R</b>                         |              |
| Rear feed paper                  |              |
| loading .....                    | 16–20        |
| Reliability .....                | 69           |
| Replacement parts .....          | 66           |
| Ribbon cartridge                 |              |
| installing .....                 | 7            |
| life .....                       | 69           |
| replacement # .....              | 66           |
| replacing .....                  | 7, 60        |
| take-up knob .....               | 10           |
| Ribbon shield .....              | 8            |
| Roll paper stand .....           | 67           |
| using .....                      | 56–59        |
| Rolling ASCII test .....         | 63           |

**S**

SELECT button ..... 44

SELECT light ..... 42

Self test ..... 30, 62

Separator, paper ..... 12

Serial interface connection ..34–35

Shipping restraints ..... 6

Single sheet paper  
     loading ..... 25–26, 28–29  
     specifications ..... 69

Specifications ..... 68–71

**T**

Take-up knob, ribbon ..... 10

Temperature specifications ..... 70

Testing ..... 30

Tests  
     font sample ..... 62  
     hex dump mode ..... 63  
     Rolling ASCII ..... 63  
     self test ..... 62

TOF SET button ..... 44

**U**

Unpacking ..... 5

USB connection ..... 31–32

**V**

Voltage ..... 70

**W**

Warning boxes ..... 4

Weight ..... 70