

# Letterwriter 100 Installation Guide



EK-LW100-IN-001

# Letterwriter 100 Installation Guide

Prepared by Educational Services  
of  
Digital Equipment Corporation

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## INTRODUCTION

The Letterwriter 100 User Documentation Package describes all models of Letterwriter 100 terminals. The documents are for three general audiences:

- the hardware installer who needs specific installation and checkout information,
- the operator who needs general operating information, and
- the applications programmer who needs interface and control function descriptions.

Letterwriter 100 documentation is divided into three books:

- Installation Guide
- Operator Guide
- Programmer Reference Guide.

This installation guide describes how to unpack, install, power up and check out Letterwriter 100 terminals. The guide is divided into the following chapters:

**Chapter 1 Site Preparation** -- describes the environmental and power considerations for the Letterwriter 100. Read this chapter before installing the terminal.

**Chapter 2 Unpacking/Repacking** -- Detailed illustrations show how to unpack and repack the terminal.

**Chapter 3 Installation** -- includes the procedure to install and verify proper operation of the Letterwriter 100.

Chapter 4 Jumper Selection -- describes removing the answerback protect and auto answerback jumpers.

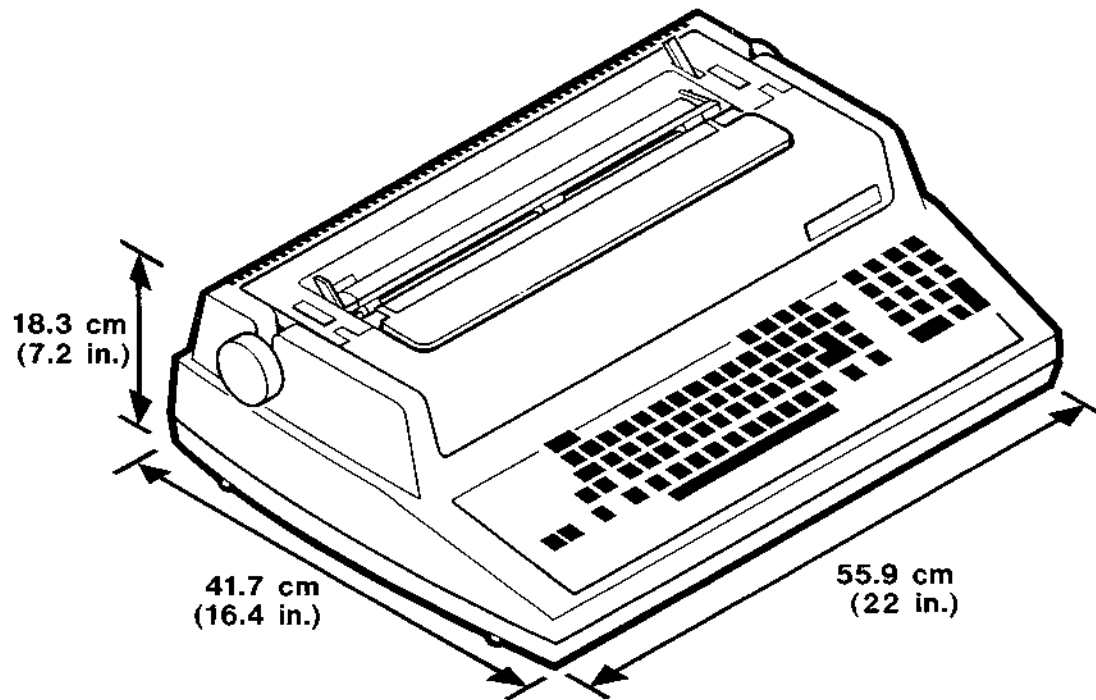
**WARNINGS, CAUTIONS AND NOTES**

In this guide, warnings, cautions, and notes are used for specific purposes. Warnings highlight information that prevents personal injury. Cautions highlight information that prevents damage to the terminal. Notes highlight general information.



CHAPTER 1  
SITE CONSIDERATIONS

Install the Letterwriter 100 terminal in an area that is free from excessive dust, dirt, corrosive fumes, and vapors. To prevent overheating, do not block the ventilation openings on the bottom of the terminal. Table 1-1 lists terminal environmental and power requirements. Figure 1-1 shows terminal dimensions.



MA-8248

Table 1-1 Site Considerations

Site Consideration	Specification
Temperature	13° to 40° C (50° to 104° F)
Relative Humidity	10 to 90 percent with a maximum wet bulb temperature of 28° C (82° F) and a minimum dew point of 2° C (36° F) noncondensing
Input Voltage	90 to 128 VAC 180 to 256 VAC (switch selectable)
Power Consumption	Printing 45 watts maximum Nonprinting 25 watts maximum
Power Receptacle	Nonswitched, three prong, grounded receptacle

CHAPTER 2  
UNPACKING AND REPACKING

UNPACKING

Perform the following procedure to unpack and inspect the Letterwriter 100. You need a pair of diagonal cutters.

1. Open the top of the shipping carton.
2. Lift the terminal up and out of the carton and place it on a flat, clean work surface.
3. Remove the shock absorbing material and packing from around the terminal.
4. Remove the documentation package, power cord, and any other cables.
5. Carefully inspect the housing and carriage assembly for obvious shipping damage. Check the enclosed packing list for lost or missing items. If any item is damaged, contact the shipper. If any item is missing, contact your local DIGITAL sales representative.
6. Wipe the outer surfaces with a clean, soft, lint-free cloth, if necessary.

NOTE: Save the carton and packing materials to repack the terminal in case you have to move the terminal to another location.



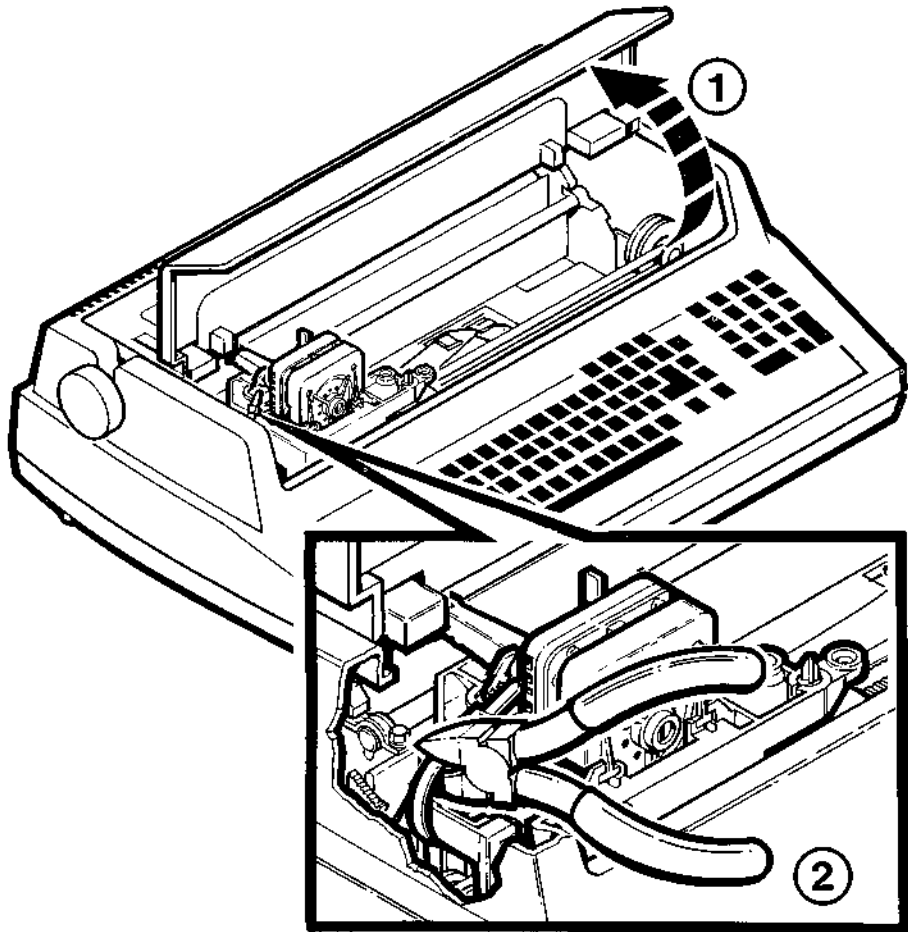
CHAPTER 3  
INSTALLATION INFORMATION

INSTALLATION CHECKLIST

- Remove nylon cable tie.
- Select ac input voltage range.
- Install any options.
- Plug line cord into terminal and wall receptacle.
- Connect interface cable.
- Install ribbon cartridge.
- Install paper.
- Turn power on.
- Adjust printhead.
- Perform self-test.

INSTALLATION PROCEDURES

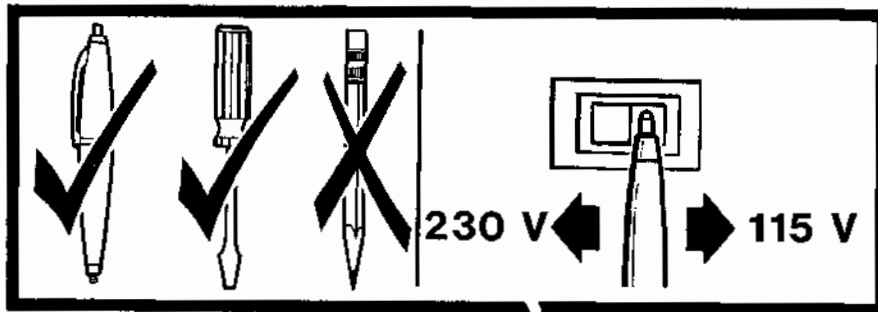
Perform the following procedure to install the Letterwriter 100. You will need a small slotted screwdriver or a ballpoint pen.



**Remove the Nylon Cable Tie.**

1. Lift the access cover.
2. Clip and remove the nylon cable tie.

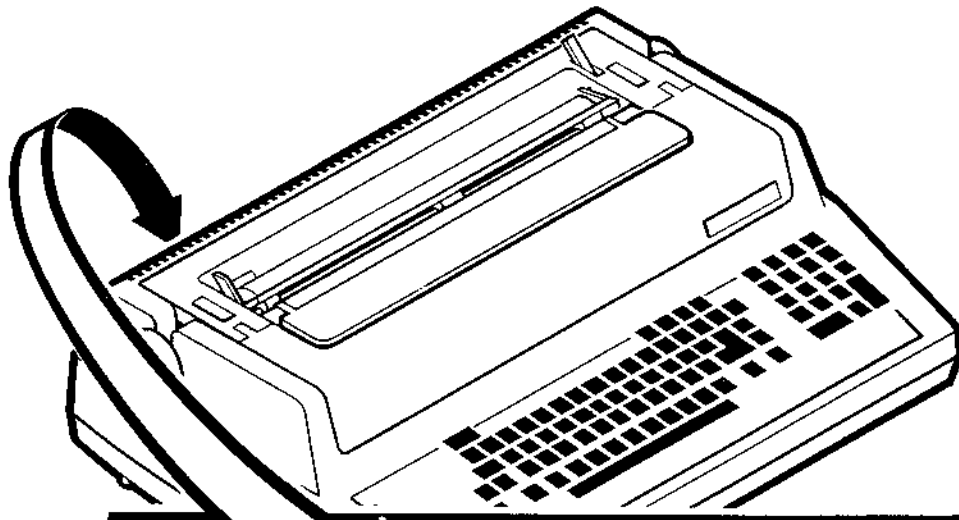
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Select the Desired AC Input Voltage Range.

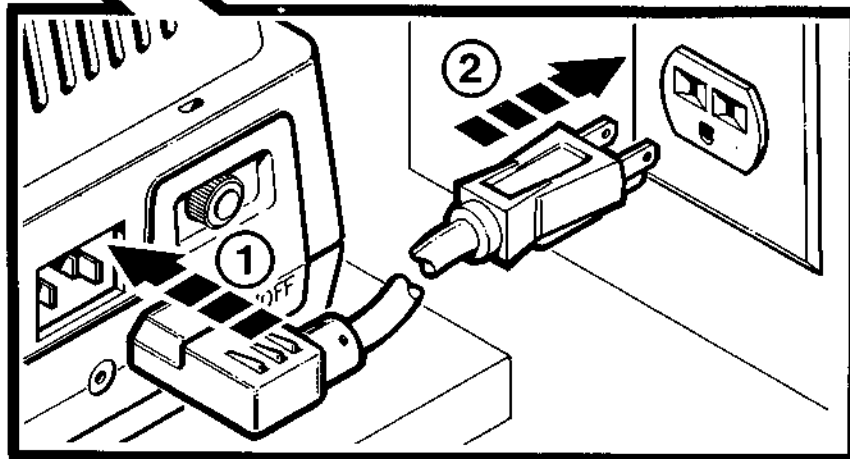
CAUTION: Always use a small slotted screwdriver, a ballpoint pen, or equivalent to change the voltage range. Never use a pencil. Lead particles can disturb the operation of the terminal.

MA-8248



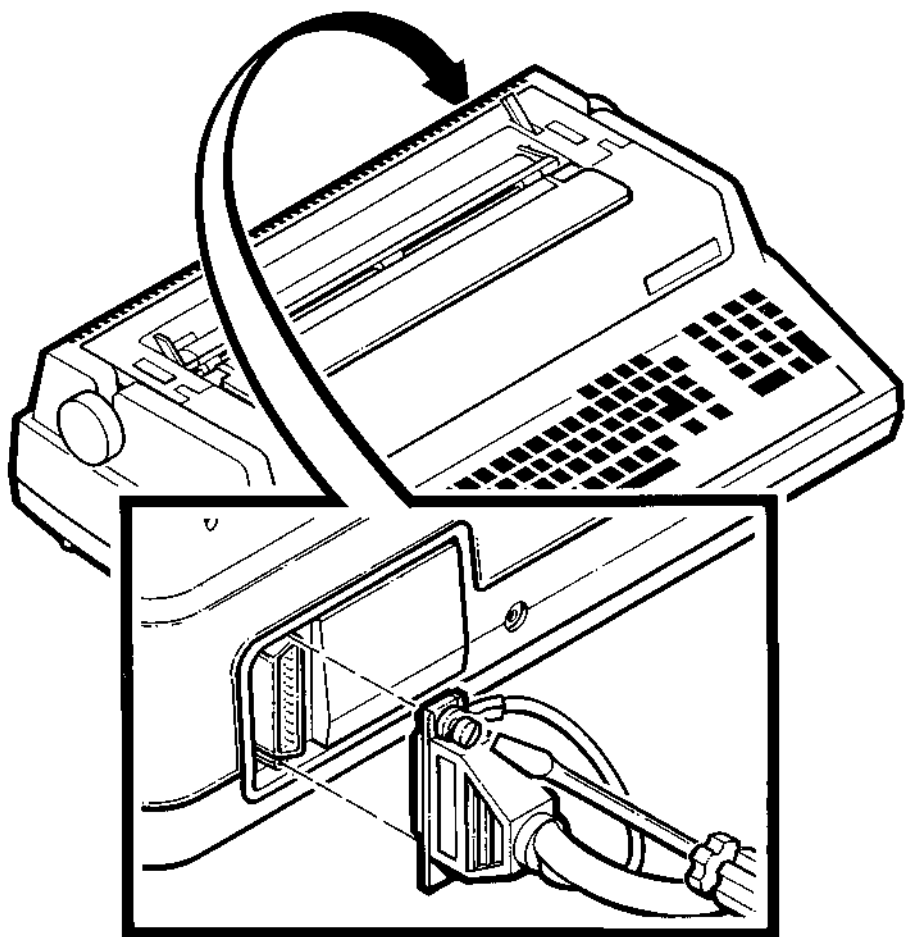
Install any Options if Needed.  
(Refer to the Installation Guide  
included with the option.)

Plug the Line Cord into the  
Terminal and into the Wall  
Receptacle.



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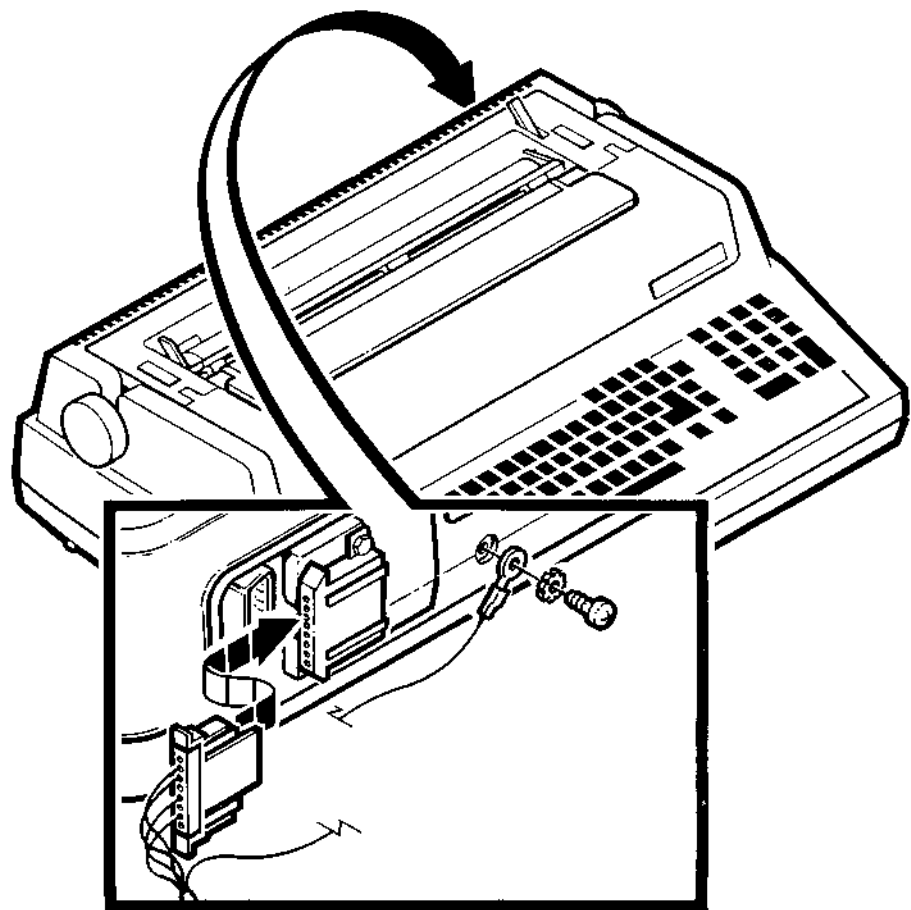




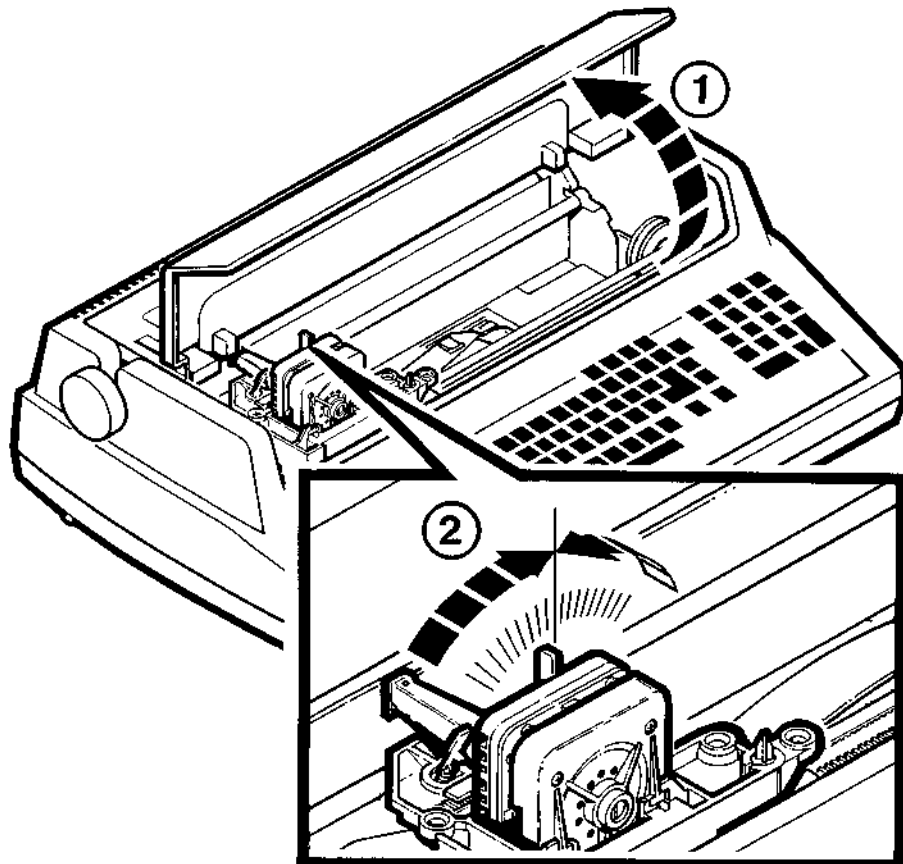
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Connect the Interface Cable to the Interface Connector.

NOTE: Site plans are not supplied by DIGITAL. Interface logic connections must be specified and provided by the system supplier or the customer because each installation may be different.



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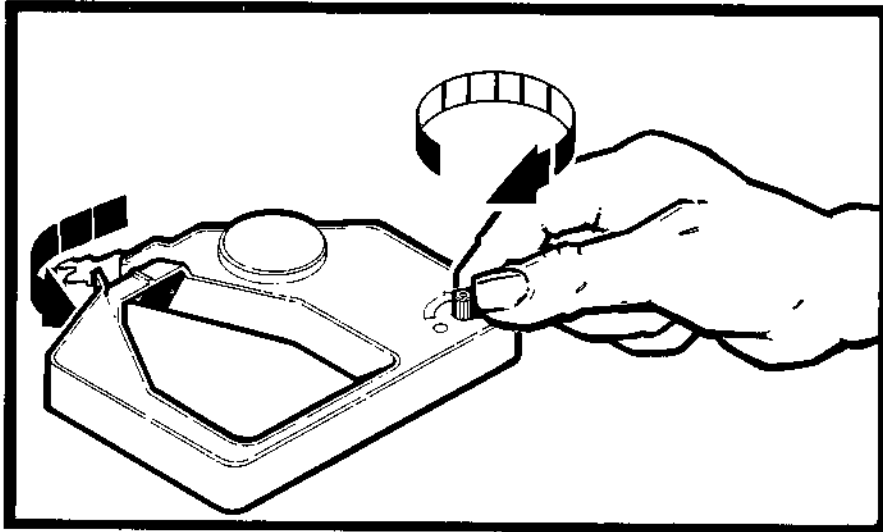
MA-8292

Install the Ribbon Cartridge.

CAUTION: Only ribbon cartridges recommended by DIGITAL (DEC P/N LA10R) or equivalent should be used with the Letterwriter 100. Other ribbon cartridges may damage the printhead and void the warranty. Refer to the Accessories and Supplies chapter in the Operator Guide for ordering information.

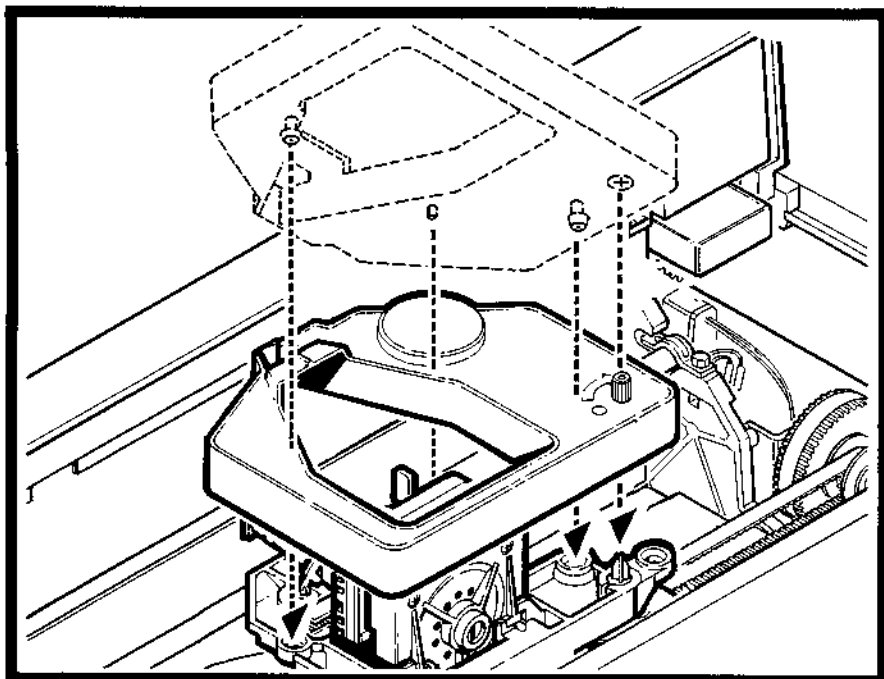
NOTE: DECwriter IV ribbon cartridges (DEC P/N LA34R) can also be used with the Letterwriter 100.

1. Lift the access cover.
2. Move the printhead adjustment lever to about the middle of its range.



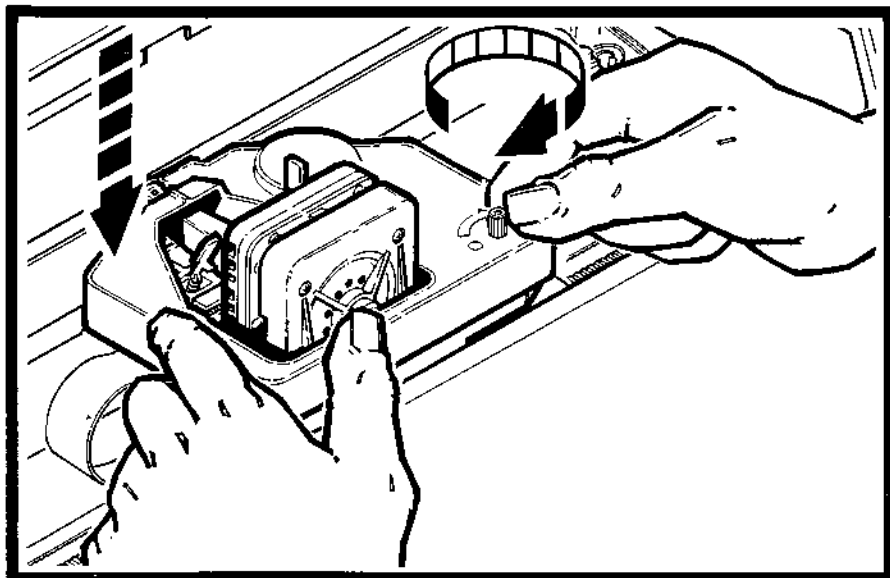
MA 6253

3. Tighten the ribbon by turning the ribbon adjust knob clockwise.



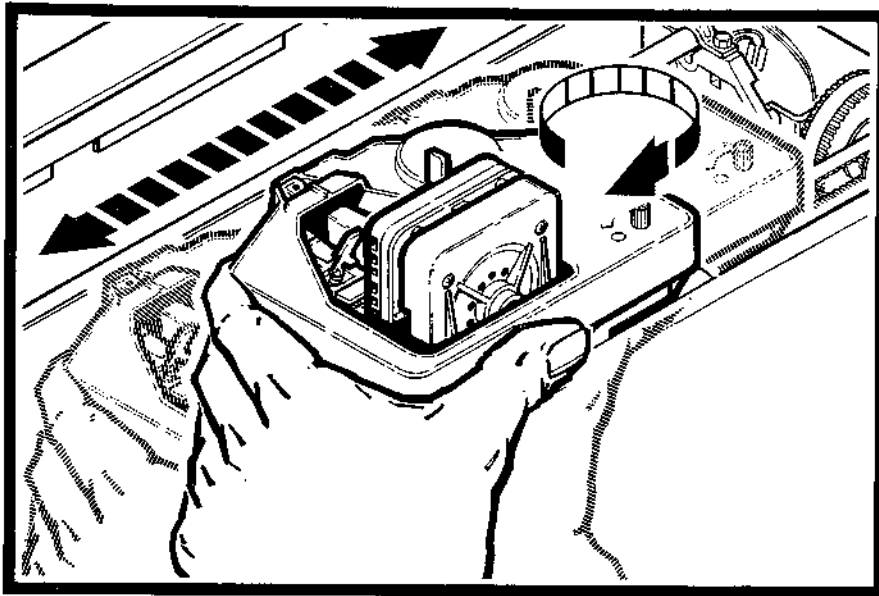
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4. Line up the snap buttons on the new ribbon cartridge with the mounting holes in the carriage assembly.



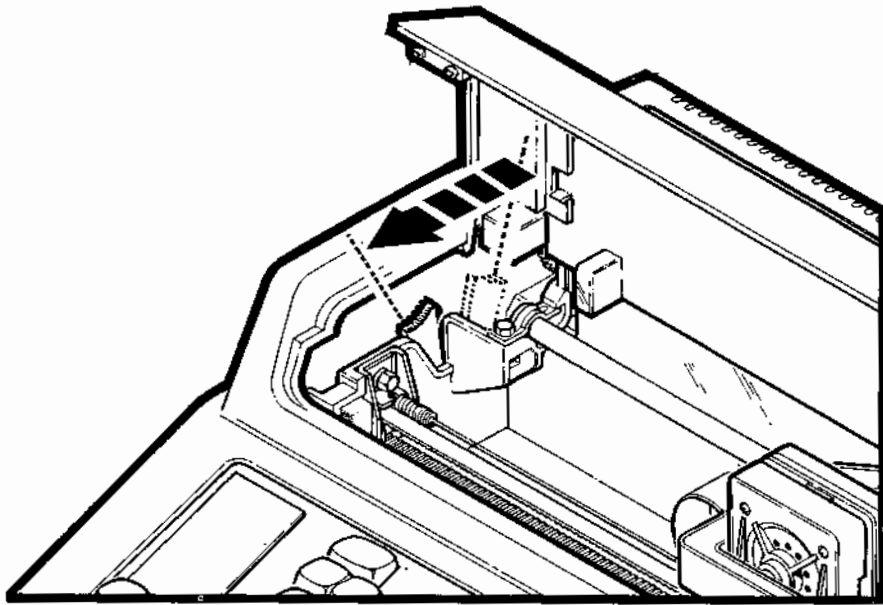
MA 8255

5. Slowly press the new ribbon cartridge onto the carriage assembly while turning the ribbon adjust knob.



MA-8256

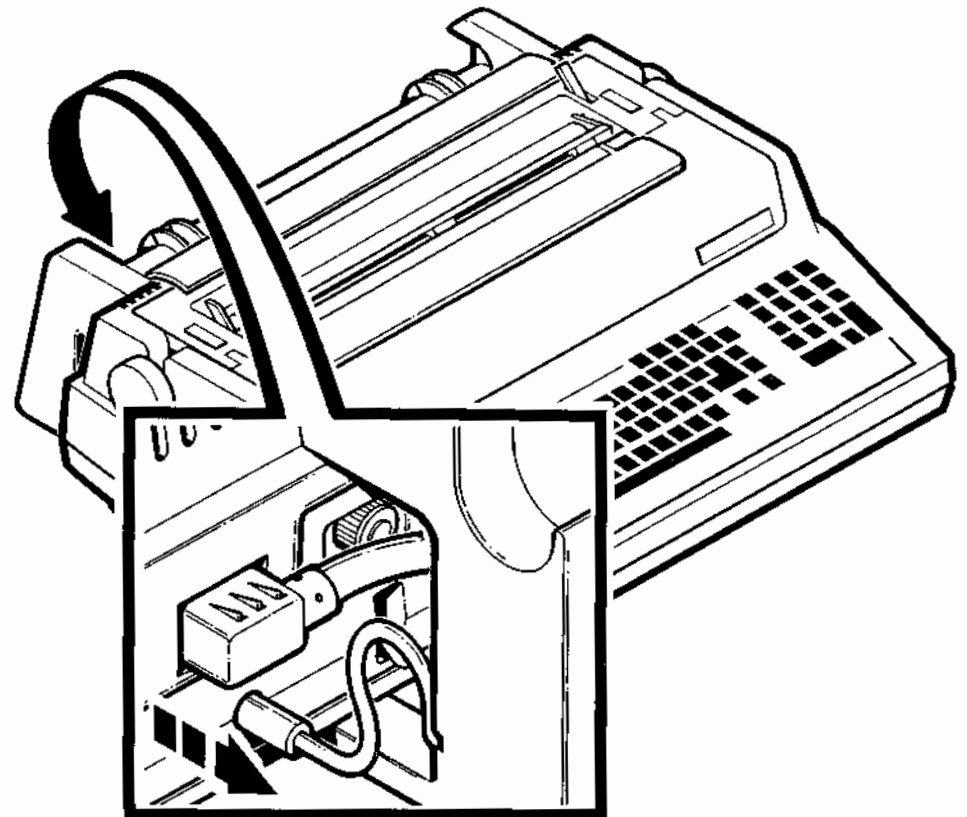
6. While watching the ribbon adjust knob, move the carriage to the right and left two or three times. The ribbon adjust knob should turn in a clockwise direction when the carriage moves. This means the ribbon is advancing correctly. If it does not turn, remove the ribbon cartridge and start the procedure again.



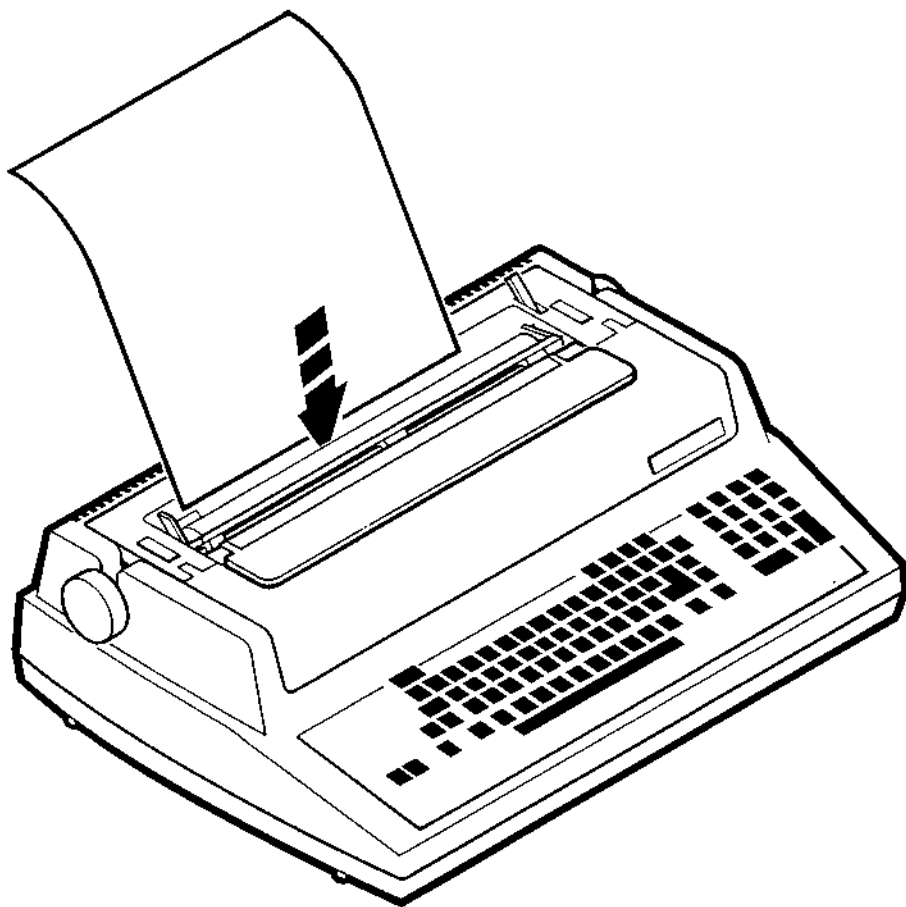
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### Install Single Sheet Paper.

1. Disable the paper out or paper low detection.



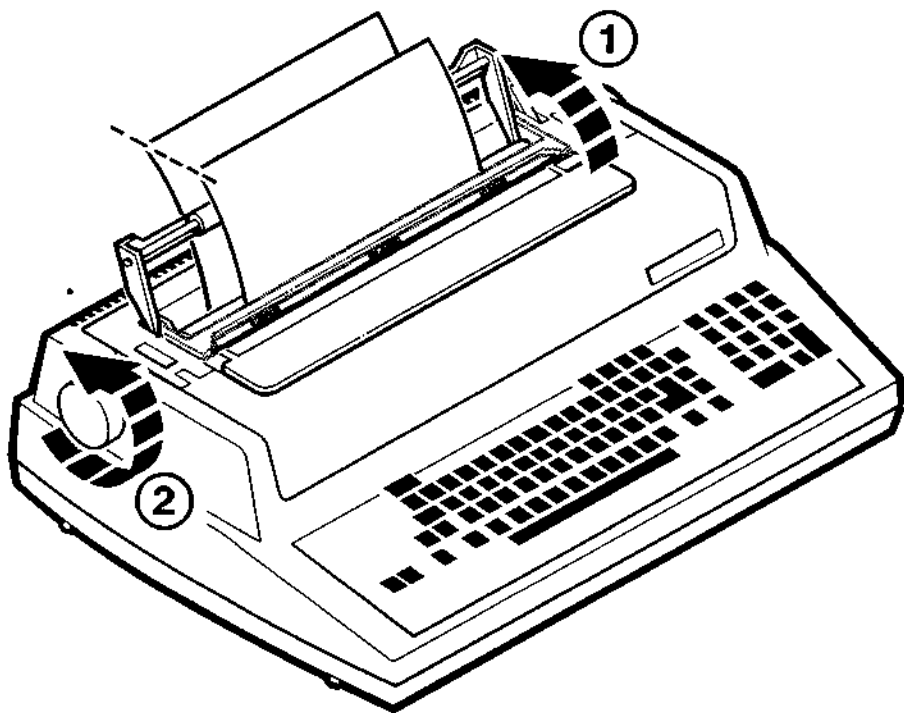
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MA-8259

2. Feed the sheet of paper under the back of the platen.

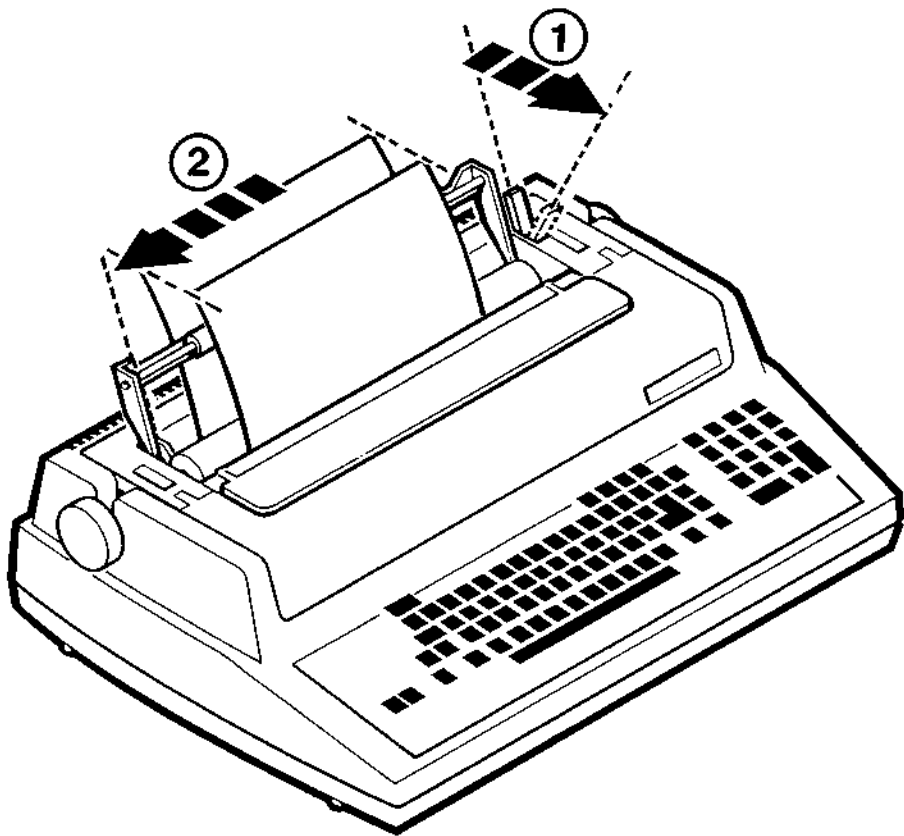




3.1 Lift the bail bar.

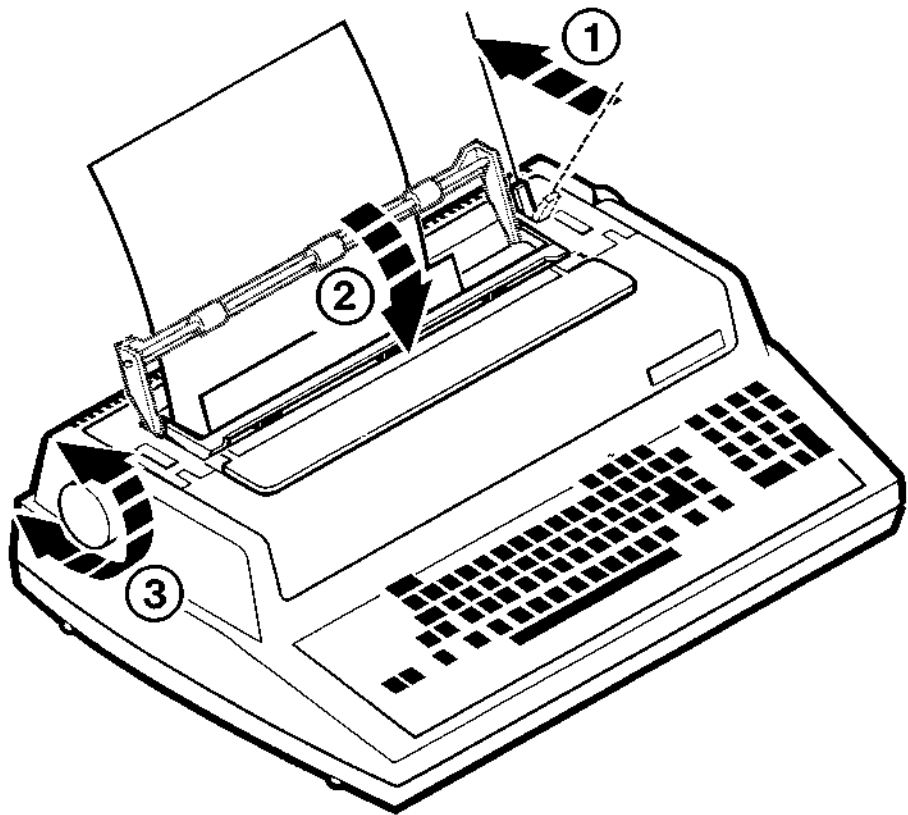
3.2 Use the paper adjust knob to advance the paper until the top edge of the paper is even with the bottom edge of the paper.

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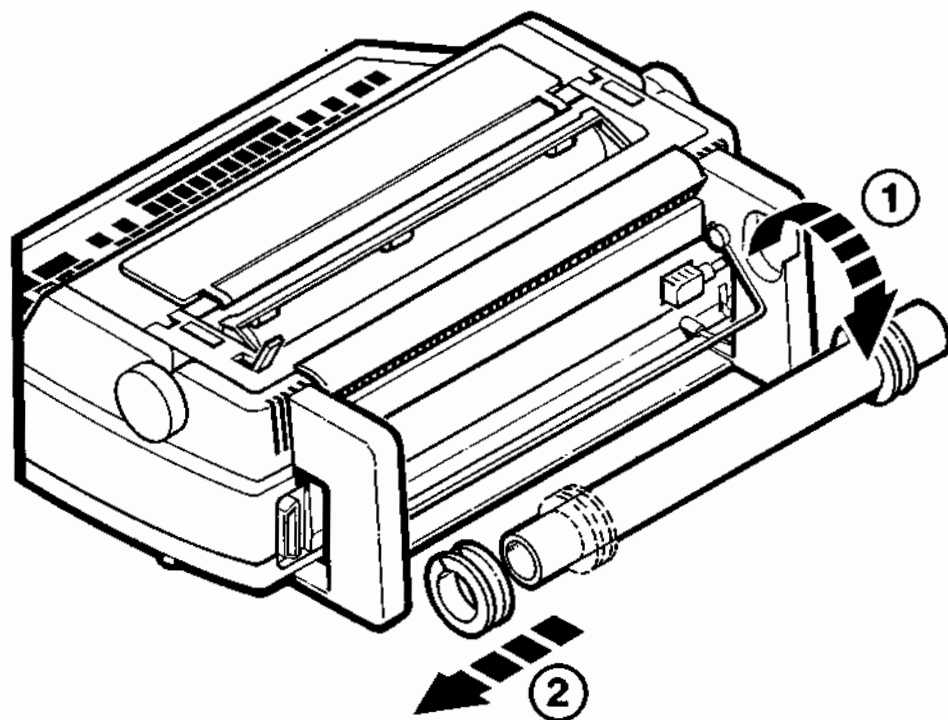
- 4.1 Pull the paper release lever toward the front of the terminal.
- 4.2 Position the paper to the left of the terminal. Smooth the paper over the surface of the platen and line up the top and bottom edges.

MA-8260



- 5.1 Push the paper release lever toward the back of the terminal.
- 5.2 Lower the bail bar to its original position.
- 5.3 Use the paper adjust knobs to move the paper to the desired position.

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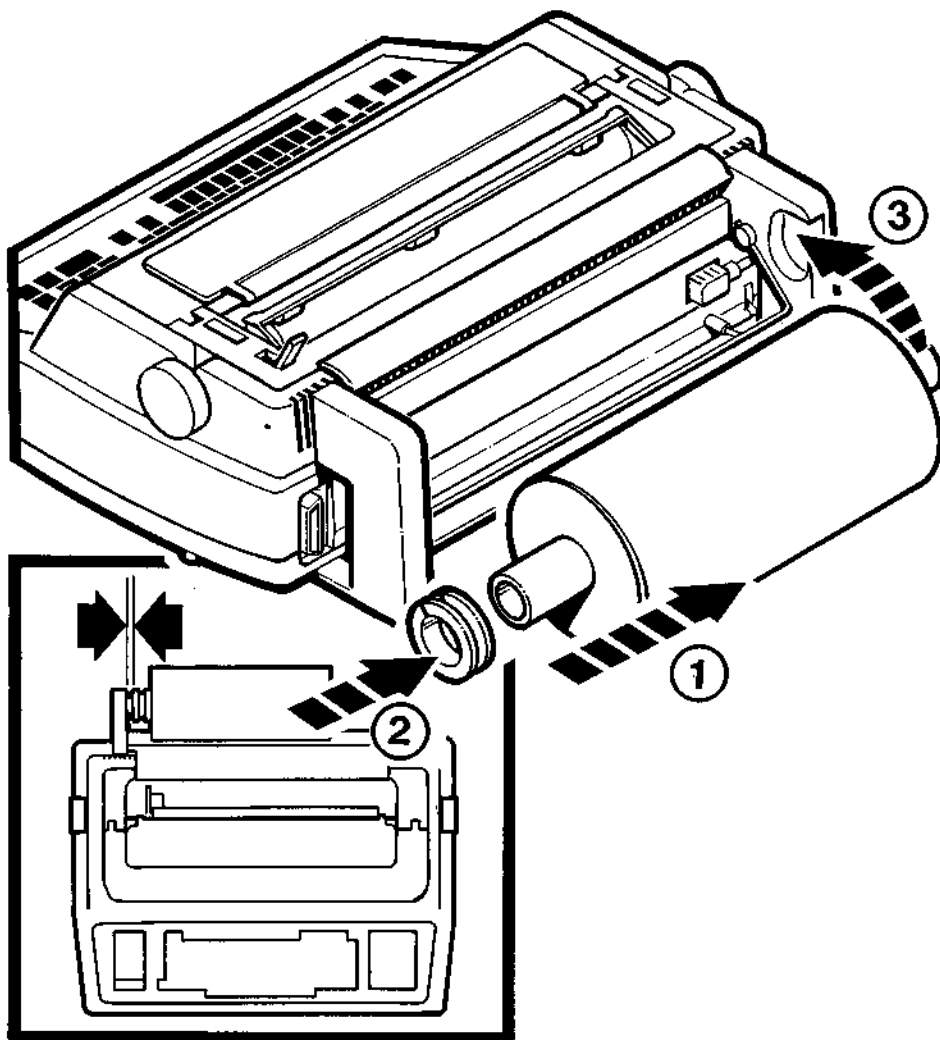


Install the Roll Paper.

NOTE: The LAX34-RL roll paper holder option must be installed to use friction feed roll paper.

- 1.1 Remove the mandrel from the roll paper holder.
- 1.2 Slide one paper roll retainer from the mandrel.

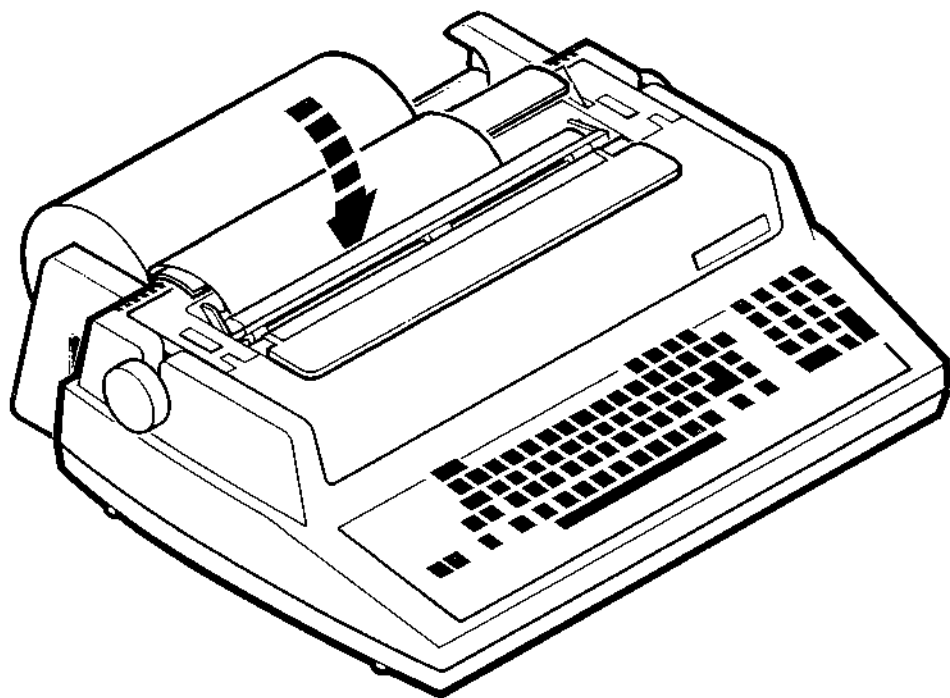
MA-8262



- 2.1 Slide the roll of paper onto the mandrel.
- 2.2 Replace the paper roll retainer.
- 2.3 Reinstall the mandrel on the roll paper holder assembly so the paper feeds from the bottom of the roll. Position the paper roll to the left of the holder.

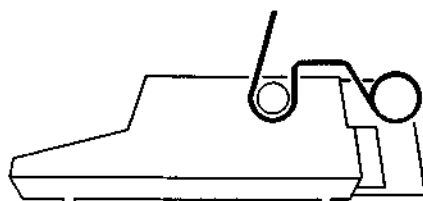
NOTE: Make sure the paper roll retainers touch the paper roll to prevent it from moving side to side. Do not let the paper roll retainers touch the side of the roll paper holder. That creates unnecessary friction.

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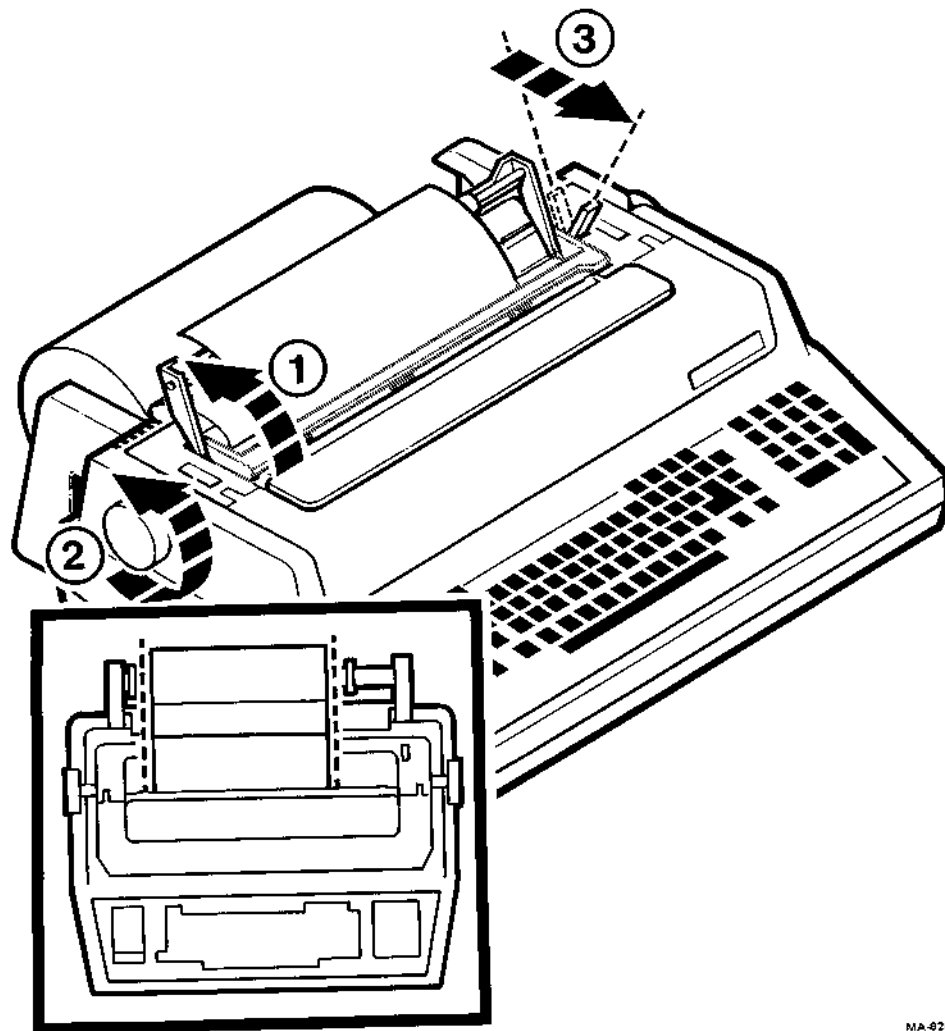


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3. Feed the paper over the roll holder apron and under the back of the platen.



MA-8265

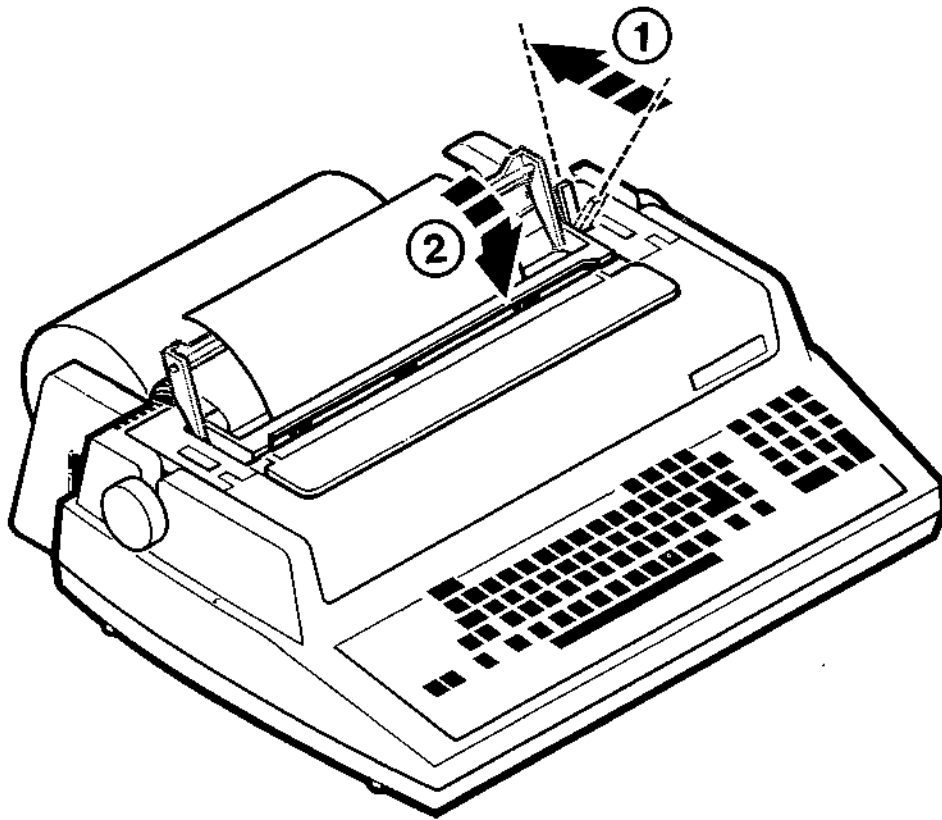


4.1 Lift the bail bar.

4.2 Use the paper adjust knob to advance the paper until the top edge extends back over the apron. Make sure the paper does not pass under the paper low sensor.

4.3 Pull the paper release lever toward the front of the terminal. Smooth the paper over the surface of the platen and line up the sides of the paper with the supply roll edges.

MA-0266

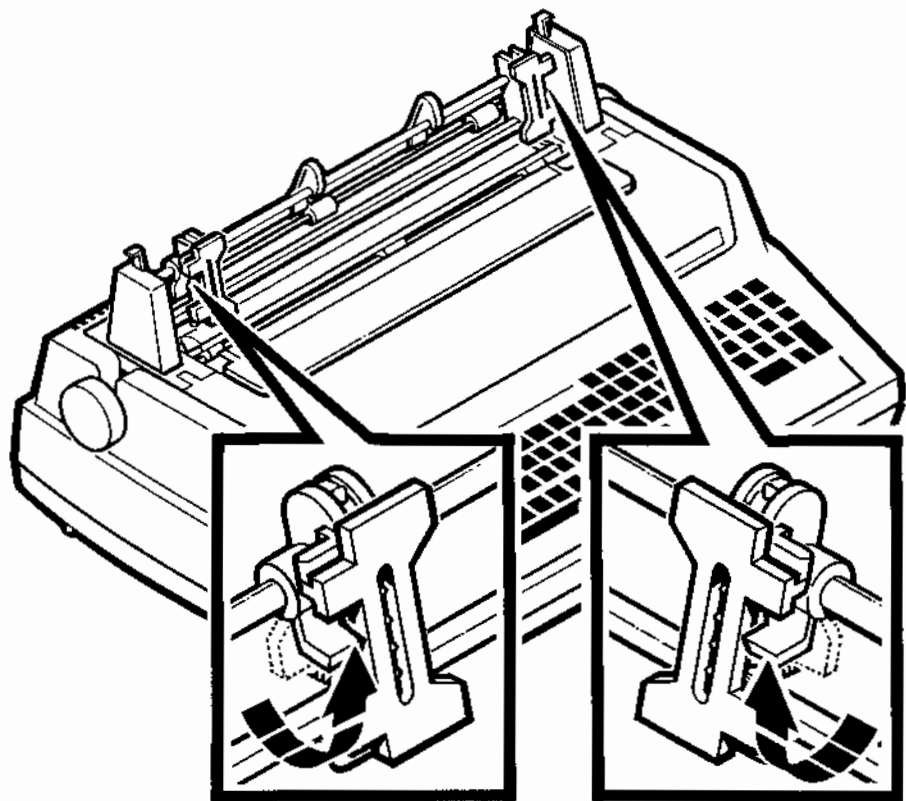


5.1 Push the paper release lever toward the back of the terminal

5.2 Lower the bail bar to its original position.

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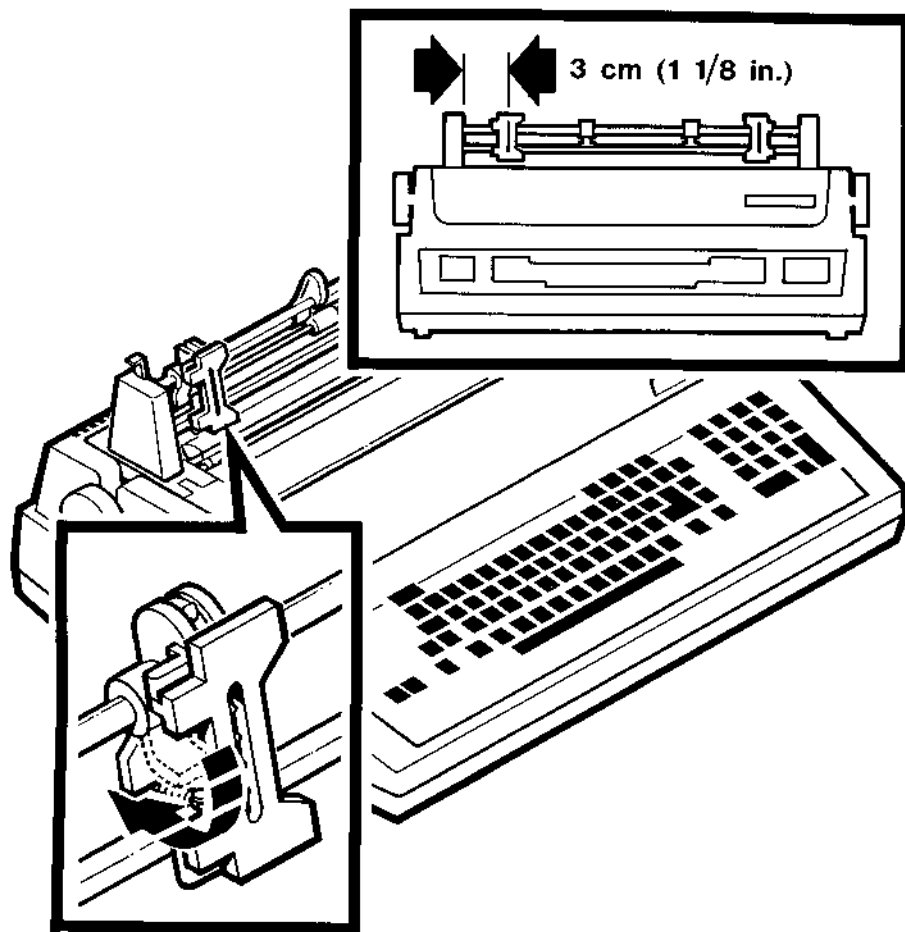
MA-9269

### Loading Tractor Feed Paper/Forms

NOTE: The LAX34-AL tractor option must be installed to use tractor feed paper. DIGITAL also recommends using the printer stand option (LAX34-SL) for the most effective paper feeding operation.

If paper is loaded from the back of the printer, the paper out detection does not operate.

1. Make sure the bail bar is behind the tractors. If not, remove the tractors and reinstall according to the LAX34-AL tractor option installation instructions.
2. Pull the left and right tractor adjust levers toward the front of the terminal.

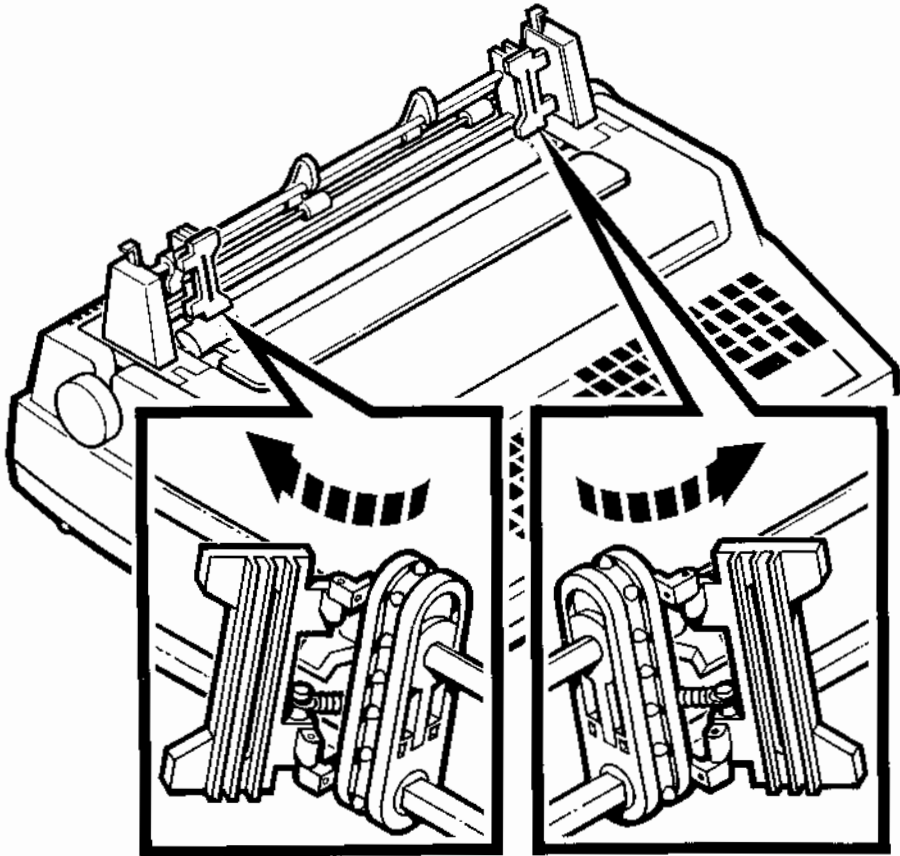


3.1 Position the left tractor so the pins are 3 cm (1-1/8 in) from the left sideplate. Position the right tractor at about the same distance from the right sideplate.

3.2 Push the left tractor adjust lever toward the back of the terminal. Do not tighten the right tractor adjust lever.

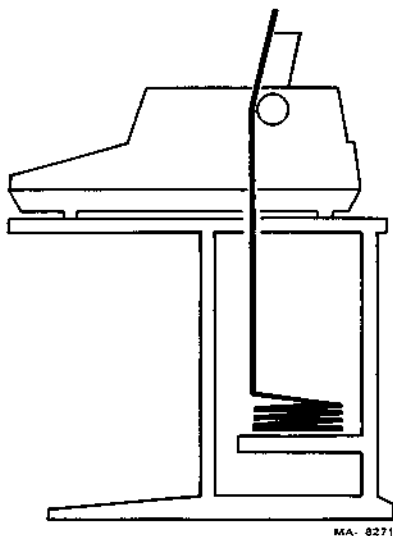
NOTE: This provides margins for 13.2 inch paper. It may be necessary to reposition the right tractor when using smaller forms. Do not move the left tractor when using smaller forms.

MA-9259



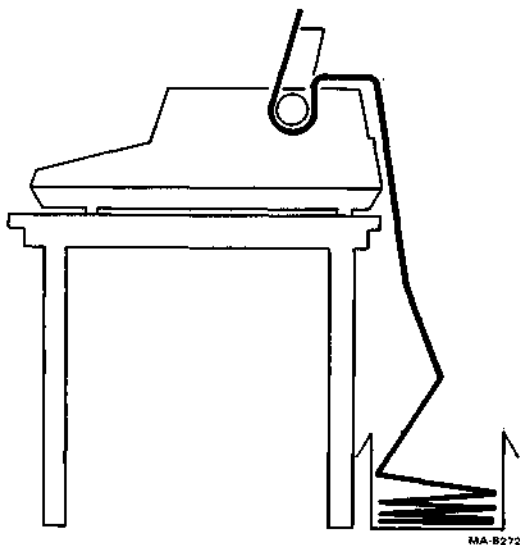
MA-8270

4. Open both tractor covers.



MA- 8271

- 5a. If you are using the printer stand, place the paper/forms on the crossmember between the legs of the printer stand. Feed the paper through the bottom paper slot. Make sure the paper stack is centered directly under the tractors.

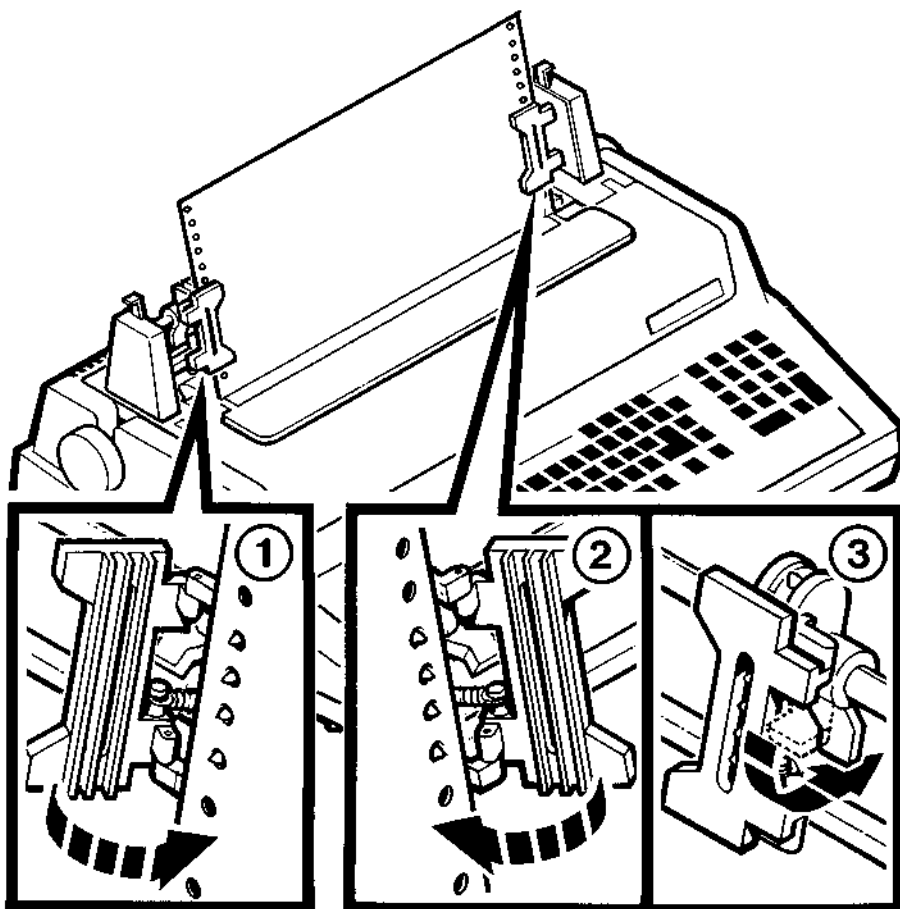


- 5b. If you are not using the printer stand, place the paper/forms on the floor behind the table. The paper can be left in the shipping container after the container top is removed. Feed the paper through the paper slot behind the platen. Rotate the paper adjust knob clockwise until the top edge of the paper extends above the tractors.

NOTE: If you can't place the paper supply on the floor, place it on the table behind the terminal. However, use the LAX34-SW paper tray accessory to prevent interference between the printout and supply paper unless the terminal is continuously watched.

Multi-part forms may separate if loaded into the terminal from the back.

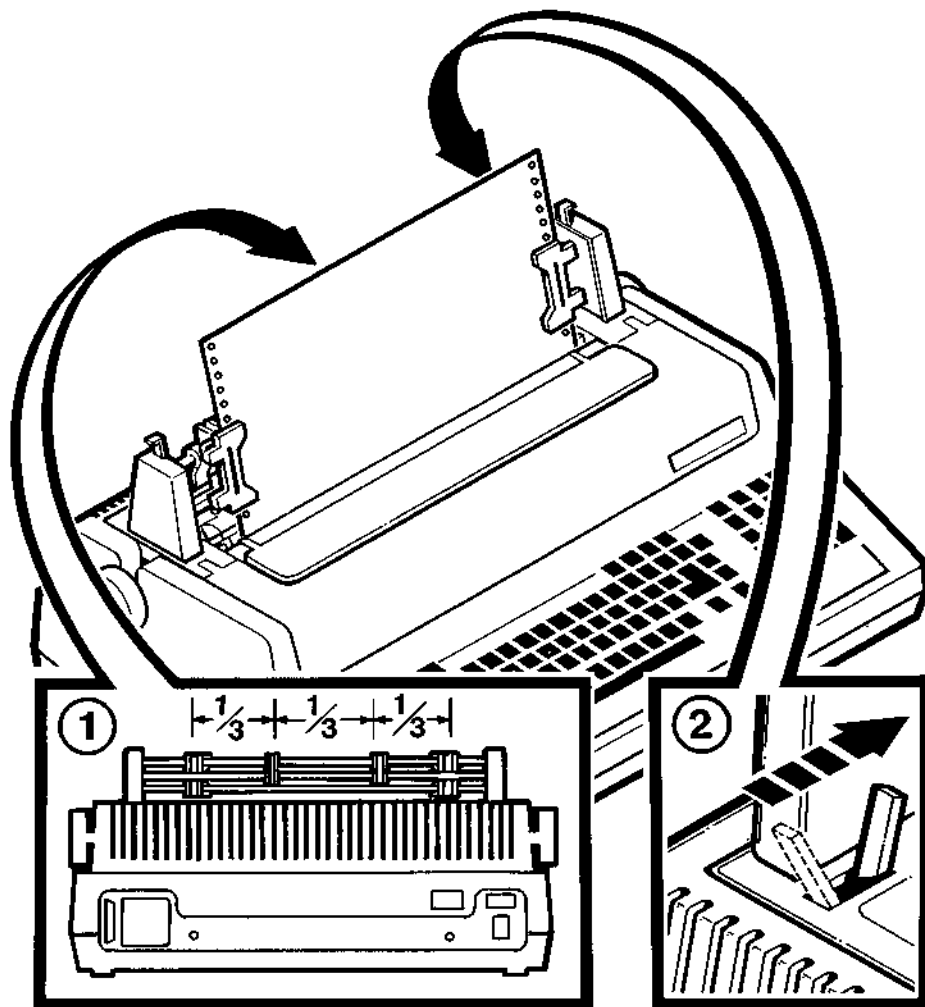
Feeding supply paper under the Letterwriter 100 and through the bottom paper slot is not recommended unless the printer stand is used. When paper is loaded from the bottom without the printer stand, the paper perforations may catch on the table. This can cause the terminal to print uneven lines across the paper.



MA-8273

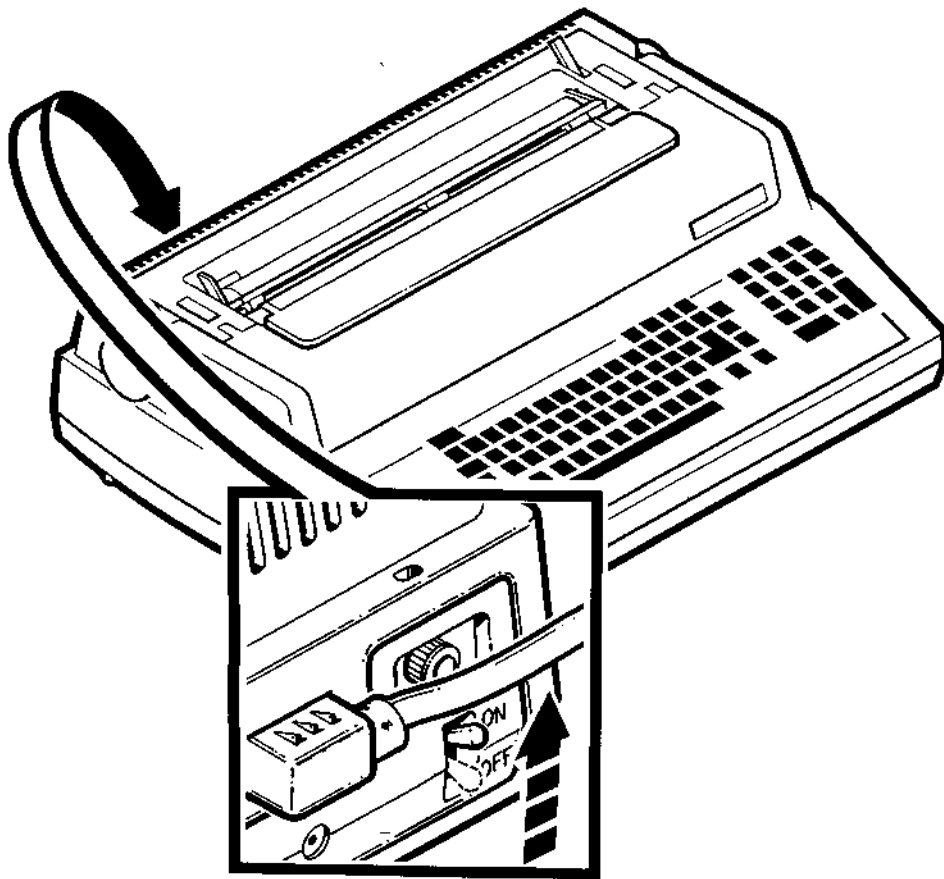
- 6.1 Place the left margin holes over the tractor feed pins. Close the left tractor cover.
- 6.2 Position the right tractor to place the right margin holes over the tractor feed pins. Close the right tractor cover.
- 6.3 Tighten the right tractor adjust lever to clamp the right tractor in place.

CAUTION: Do not stretch the paper too tight. If the paper pulls against the tractor pins or is loose in the center, readjust the right tractor.



MA-8274

- 7.1 Position the paper supports one third of the distance from each tractor.
- 7.2 Pull the paper release lever toward the front of the terminal.



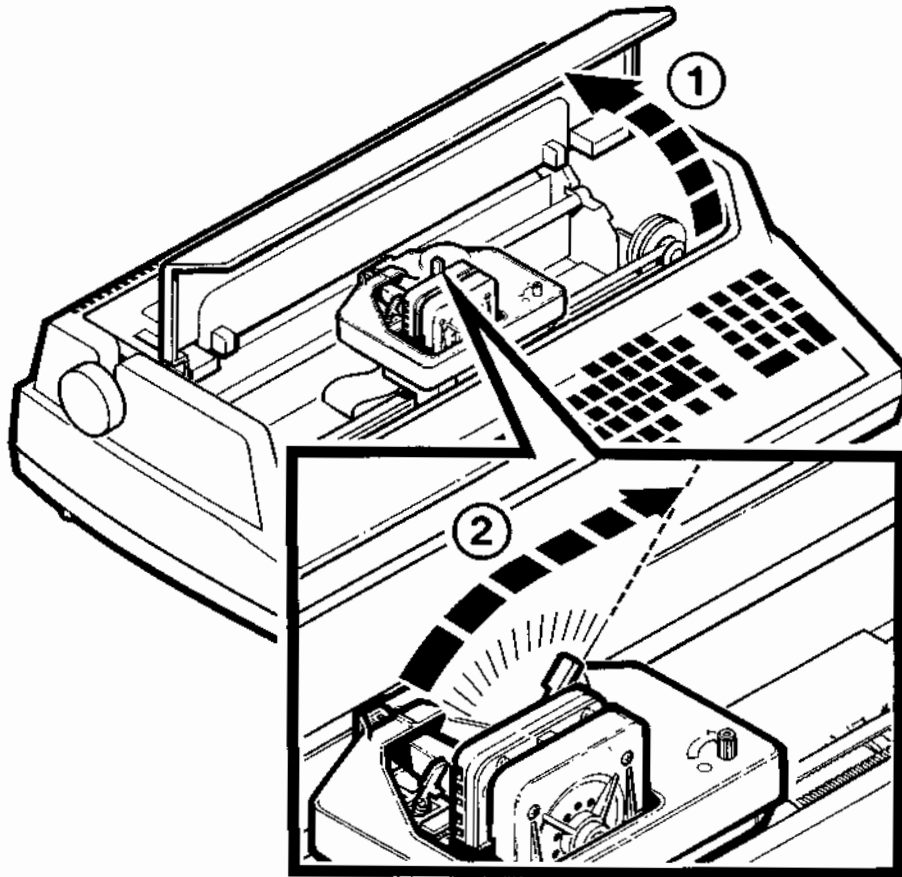
Turn Power on.

1. Turn the power ON/OFF switch to on. Make sure the POWER/FAULT indicator lights, and the printhead automatically positions itself to the left margin.

NOTE: When power to the terminal is turned on it automatically runs a power up self-test. The indicators on the operator control panel display any power up self-test failures. If the terminal does not power up correctly, refer to the troubleshooting checklist in the Operator Guide.

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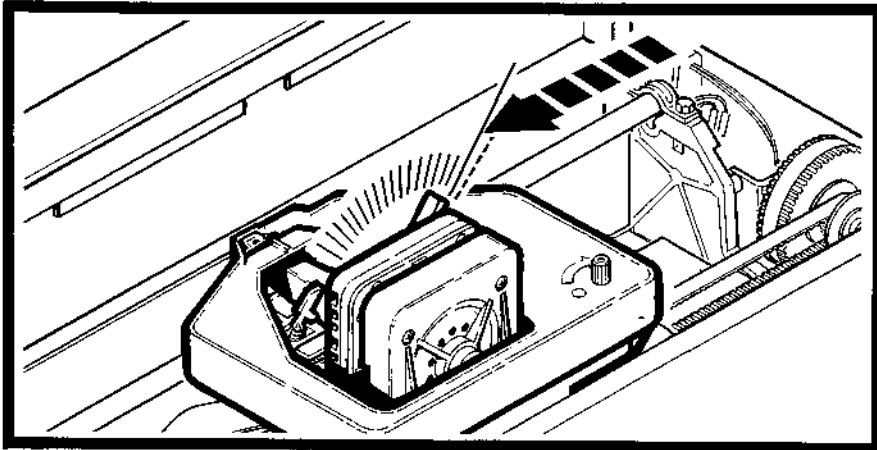




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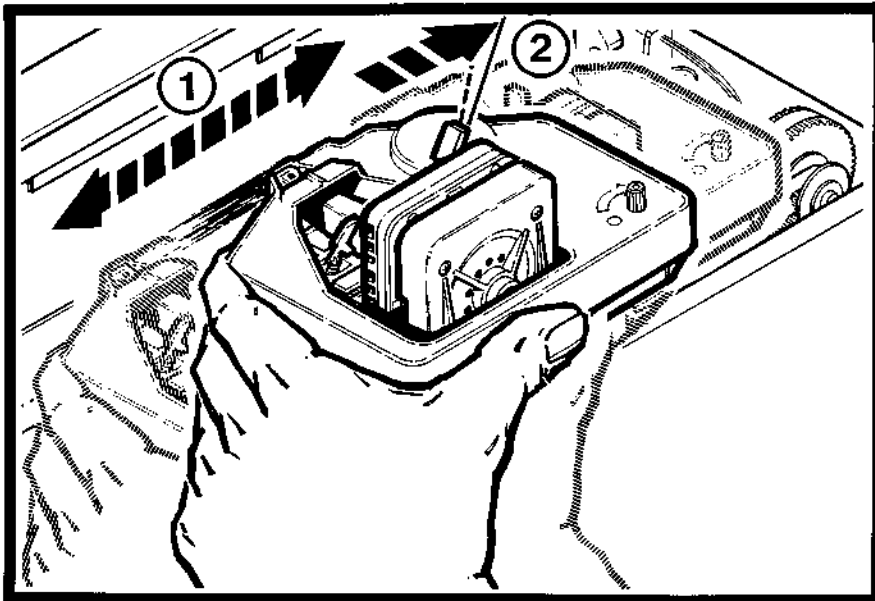
### Adjust the Printhead.

- 1.1 Open the access cover.
- 1.2 Move the printhead adjustment lever all the way to the right.



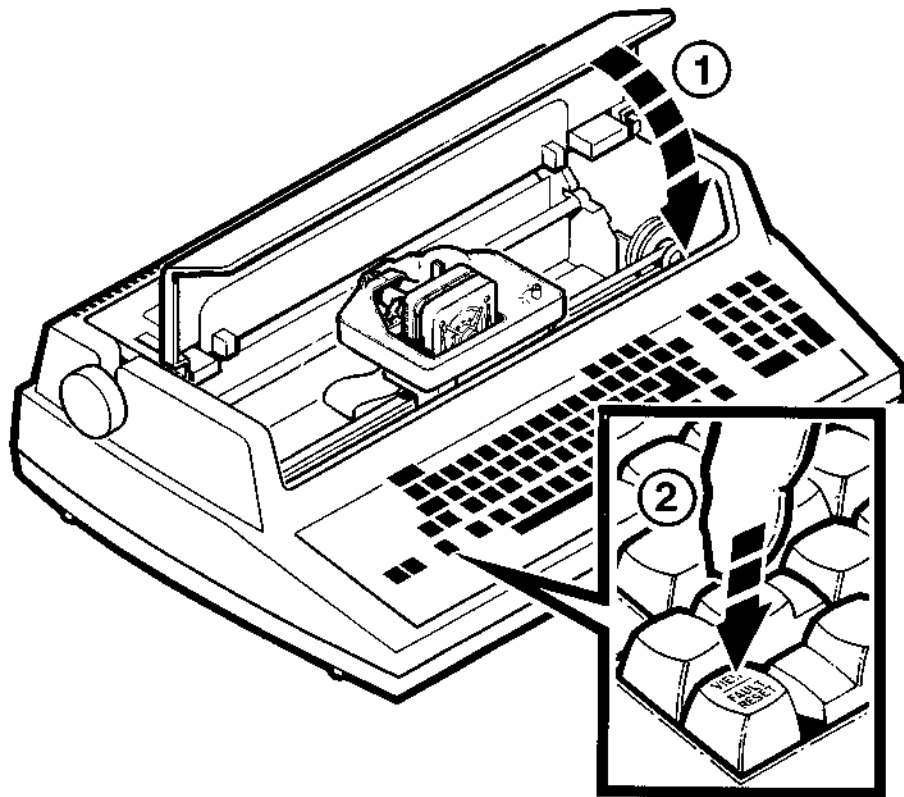
MA-8278

2. Carefully move the printhead adjustment lever one position to the left.



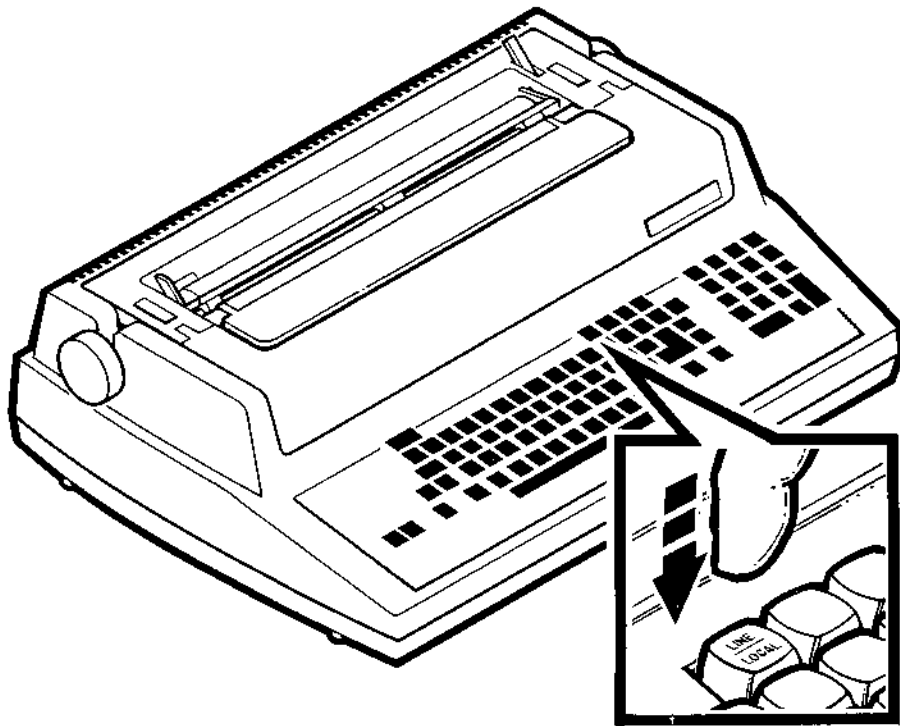
MA-8279

- 3.1 Manually move the printhead to the right and left to check for smudging.
- 3.2 If the ribbon smudges, first make sure the paper is installed correctly. If the paper is installed correctly, move the printhead adjustment lever to the right until the smudging stops.



MA-8280

- 4.1 Close the access cover.
- 4.2 Press the **VIEW/FAULT RESET** key.



MA-8276

5. Press the **LINE/LOCAL** key until the **LINE** indicator goes off.



MA-6281

6. Type a line of characters. Check the printed characters for print quality.

NOTE: If the form ripples or is pulled by the printhead, the printhead is not adjusted correctly. Repeat steps 1 through 5.

7. If necessary, repeat steps 2 through 6 until the printed characters are clear and sharp.

Perform the Terminal Self-Test.

1. Press the CTRL and SET-UP keys at the same time.
2. Press T and then press RETURN. The terminal will print the character pattern self-test. This verifies proper terminal operation.

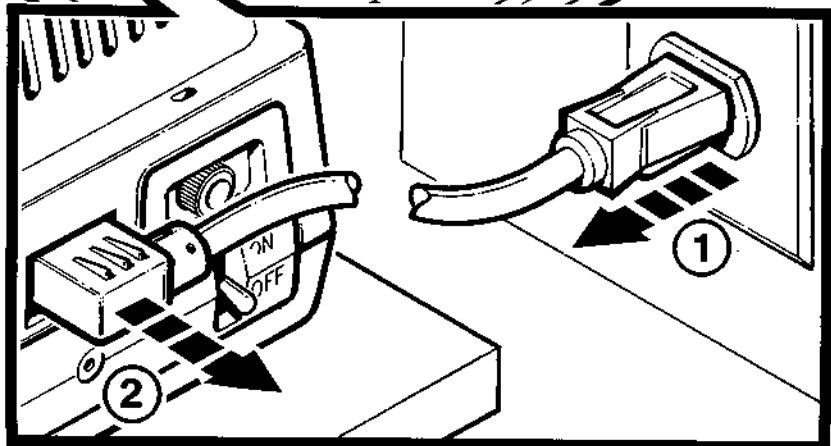
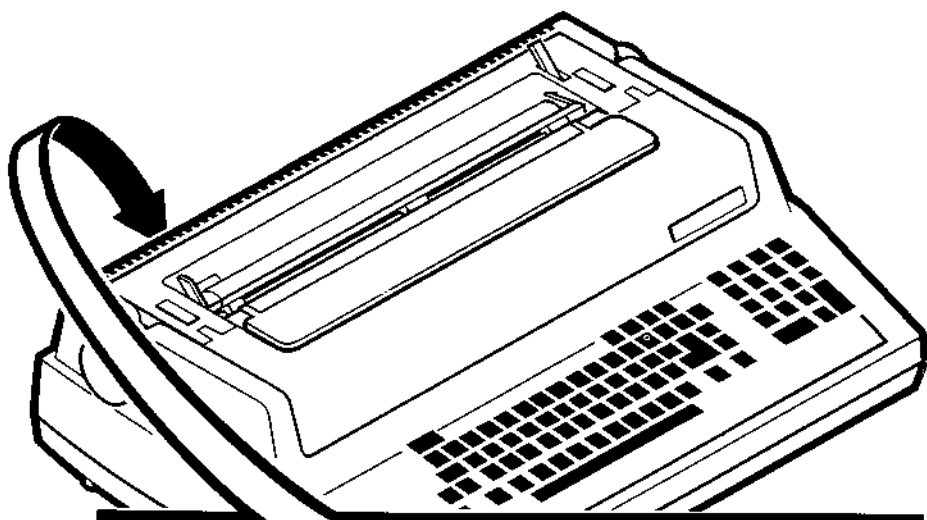
CHAPTER 4  
JUMPER SELECTION

The Letterwriter 100 has two jumpers:

- answerback message protect,
- and auto answerback.

More information on the answerback and auto answerback features is available in the Operator Guide and the Programmer Reference Guide. Perform the following procedure to remove either jumper. You need a scribe and a pair of diagonal cutters.

1. Select and store the answerback message if desired (refer to the Operator Guide or the Programmer Reference Guide).
2. Make sure power to the terminal is turned off.

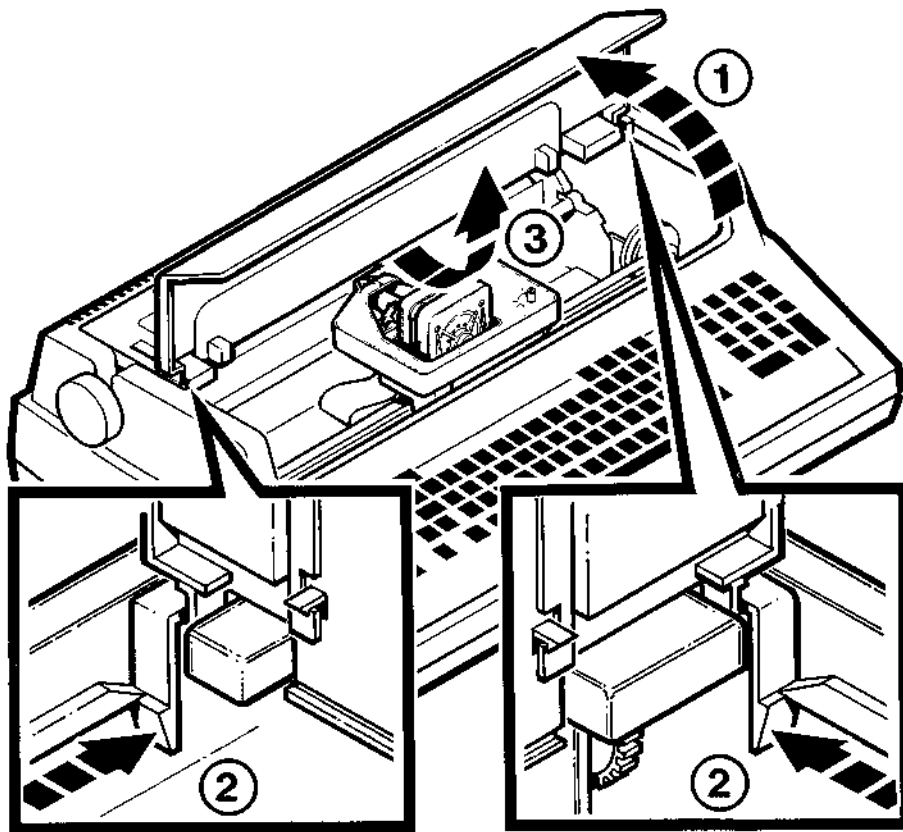


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3.1 Unplug the ac power cord from the power source.

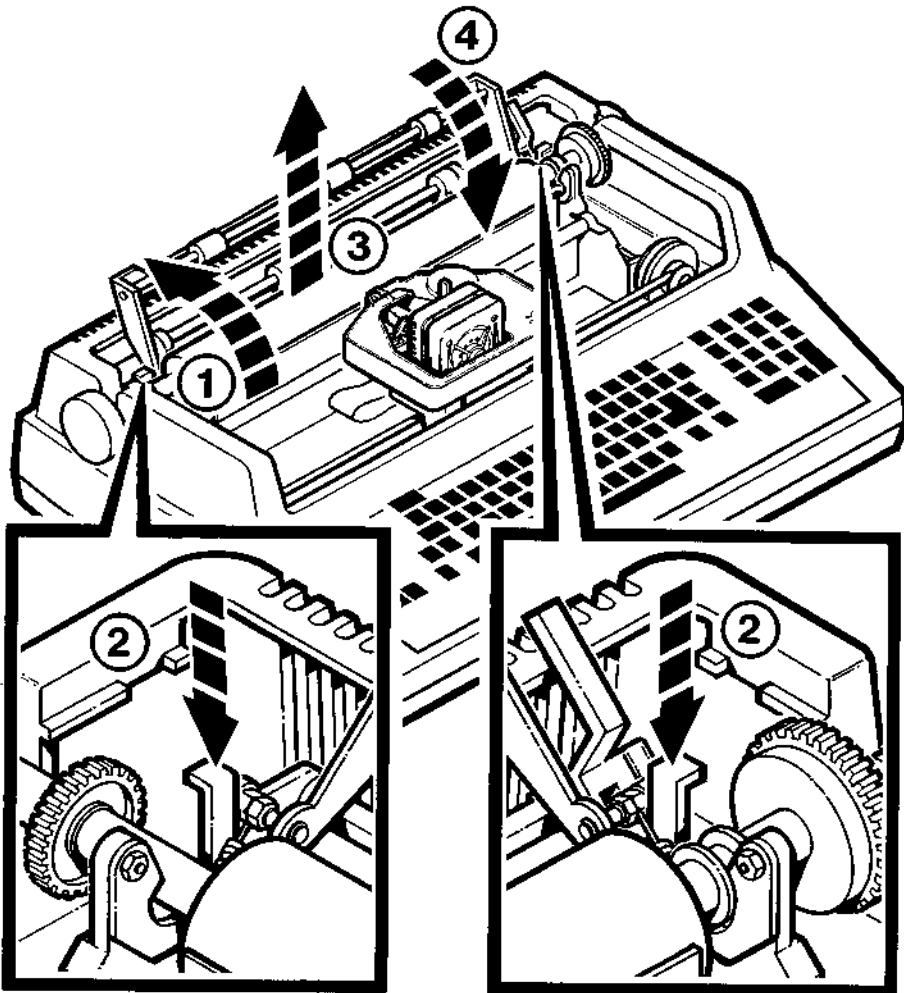
3.2 Remove the other end of the power cord from the back of the terminal.





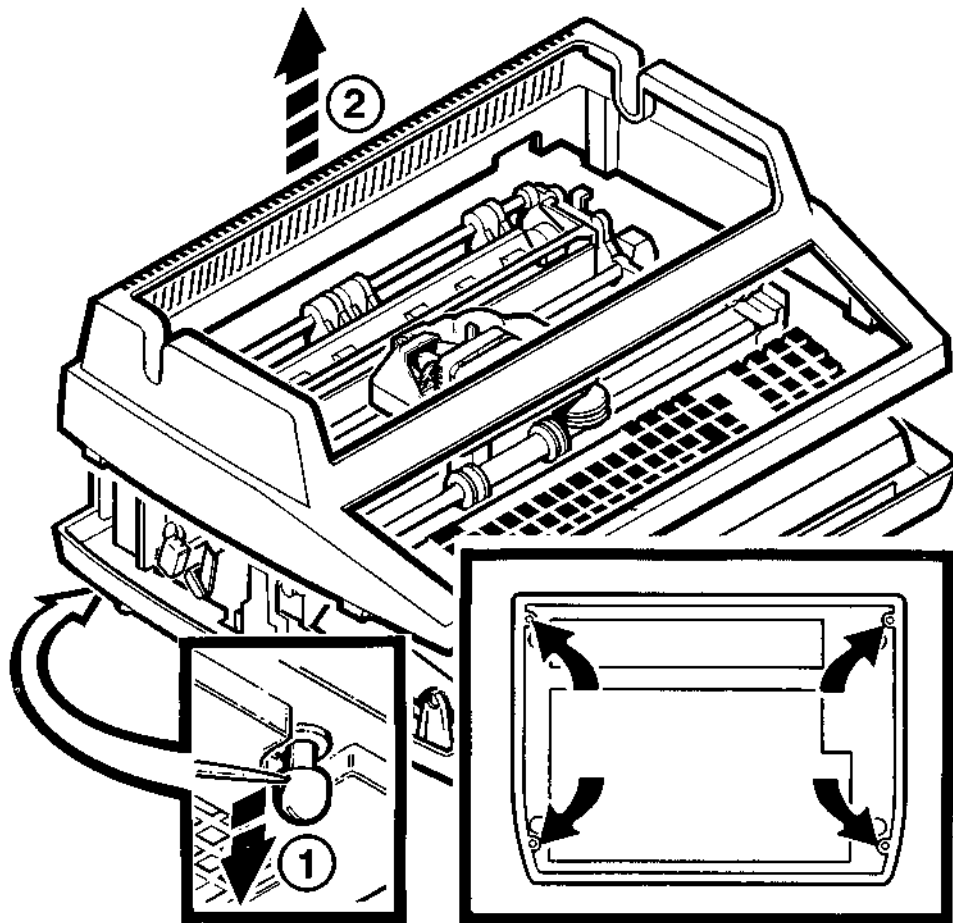
MA-8283

- 4.1 Lift the access cover.
- 4.2 Press the two retainer clips.
- 4.3 Lift the access cover away from the printer housing.



- 5.1 Lift the bail bar to gain access to the platen.
- 5.2 Press the two platen release levers.
- 5.3 Lift the platen straight up.
- 5.4 Lower the bail bar to its original position.

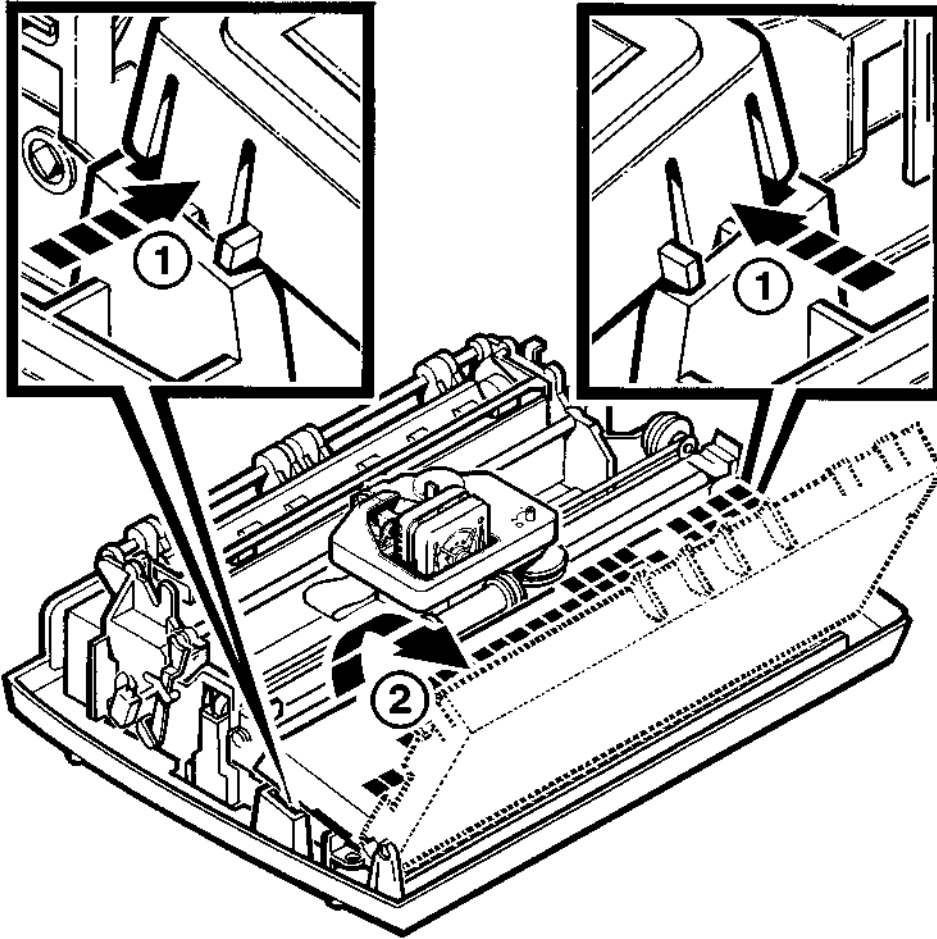
MA 8284



6.1 Use a scribe to release the four snap fasteners that secure the printer housing to the base assembly.

6.2 Lift the printer housing away from the base assembly.

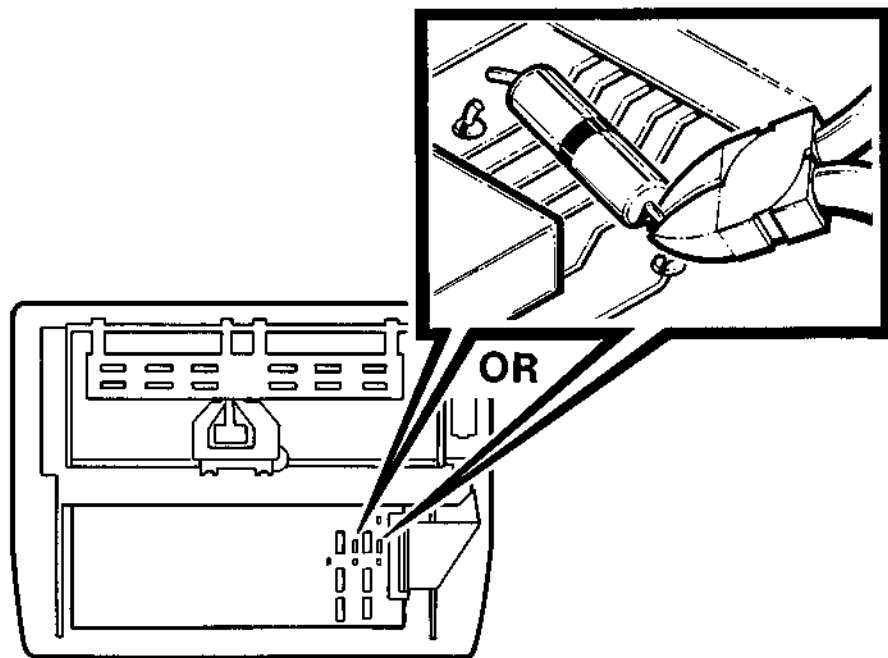
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7.1 Press the bezel retainer clips.

7.2 Rotate the keyboard bezel toward the front of the terminal.

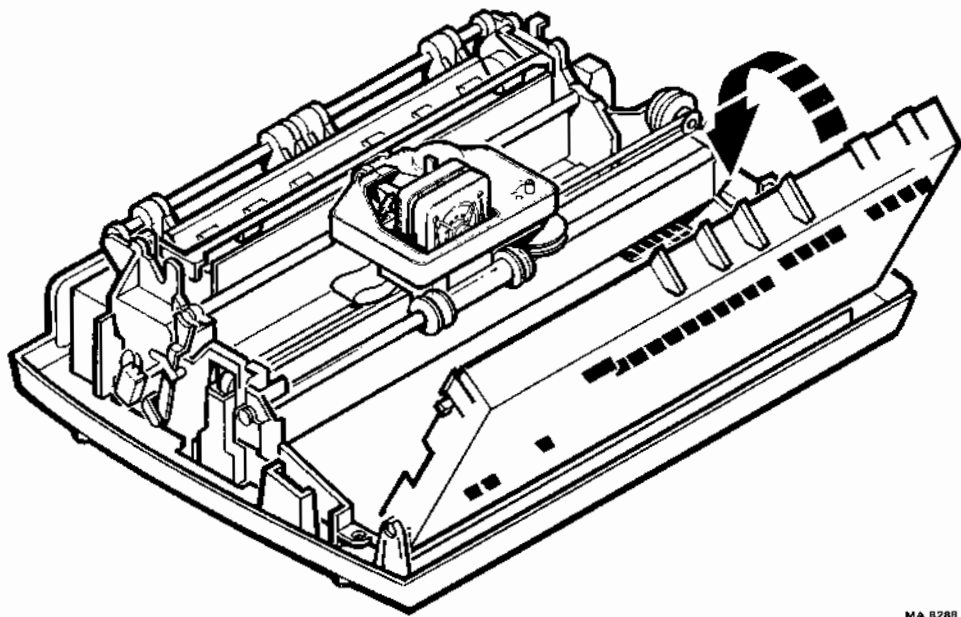
MA-8286



8. Now you can see the answerback protect and auto answerback jumpers. Cut the answerback jumper to prevent the answerback message from being changed or erased. Cut the auto answerback jumper to select the auto answerback feature.

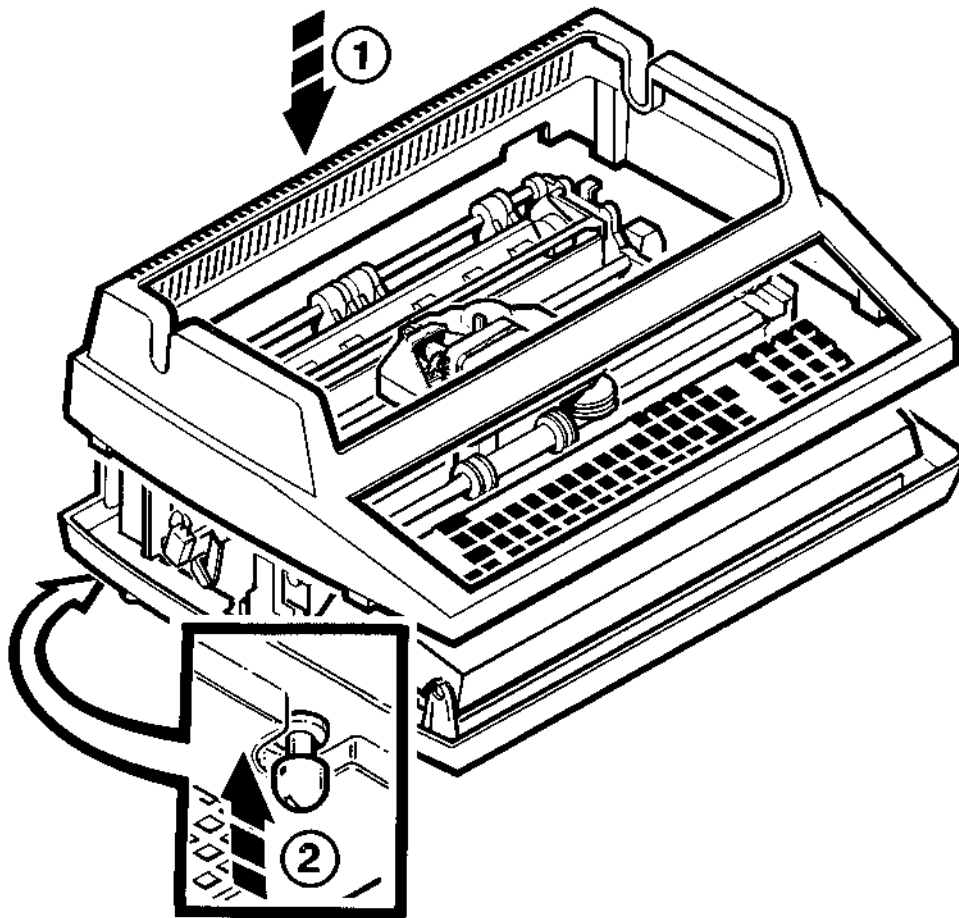
CAUTION: Be sure to remove the entire jumper. Any metal piece remaining may disturb the electronic operation of the terminal.

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MA 6289

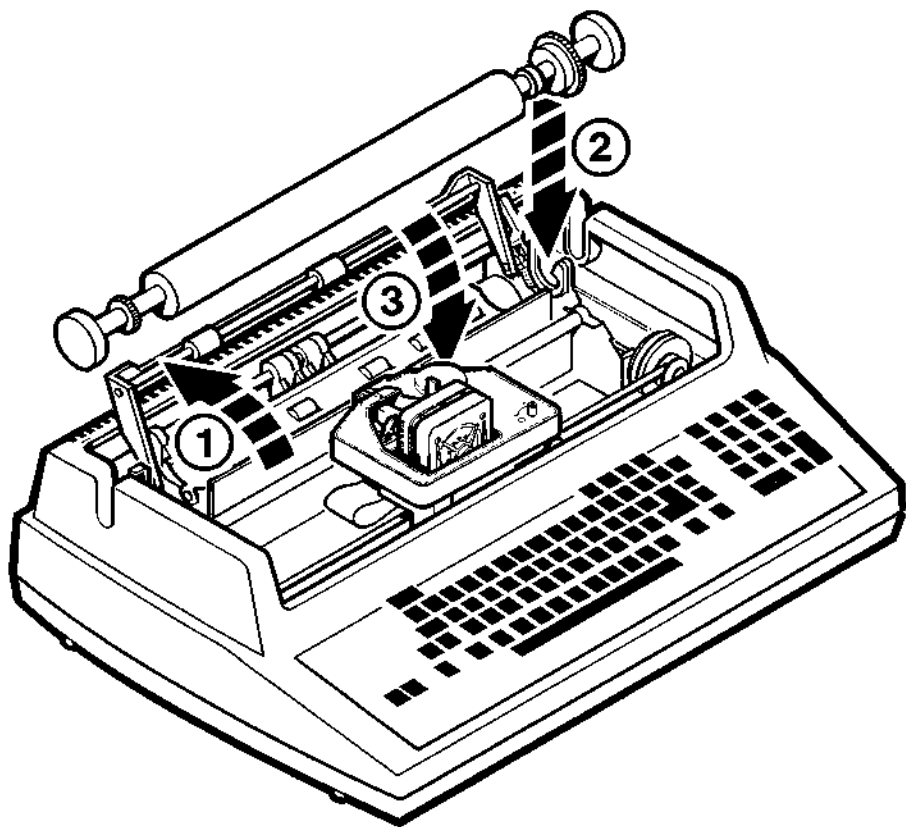
9. Make sure the bezel is properly seated. Then rotate the bezel to its original position.



10.1 Place the printer housing on the base assembly.

10.2 Press the snap fasteners to secure the housing to the base assembly.

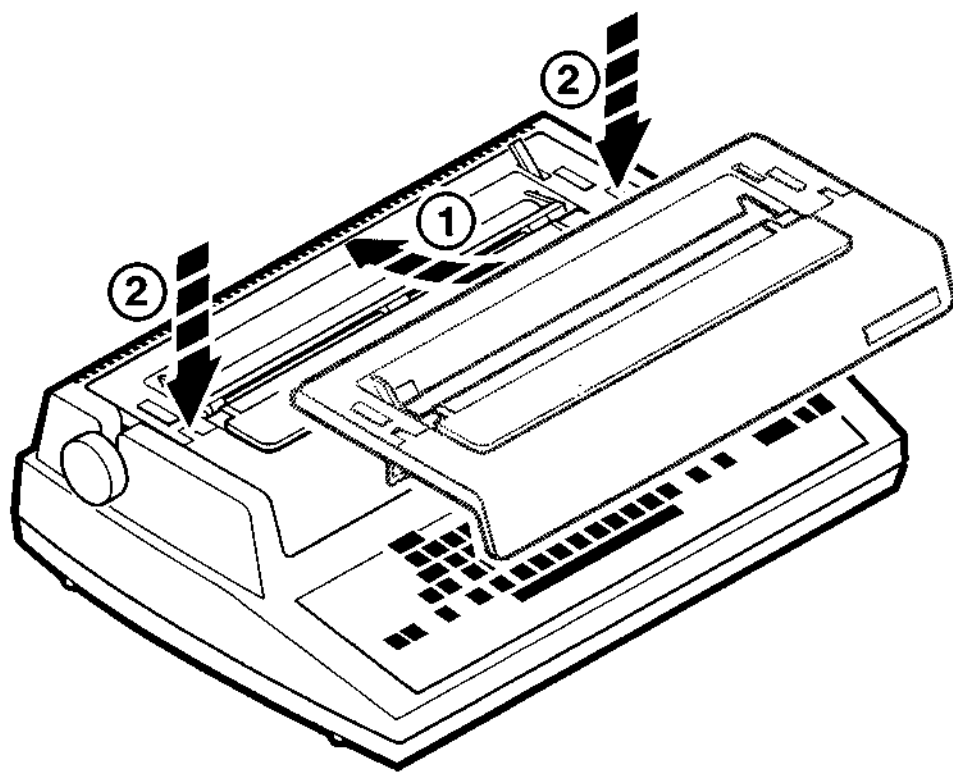
MA-8289



MA-8290

- 11.1 Lift the bail bar.
- 11.2 Press the platen into its original position. The platen clicks into place when properly seated.
- 11.3 Lower the bail bar to its original position.

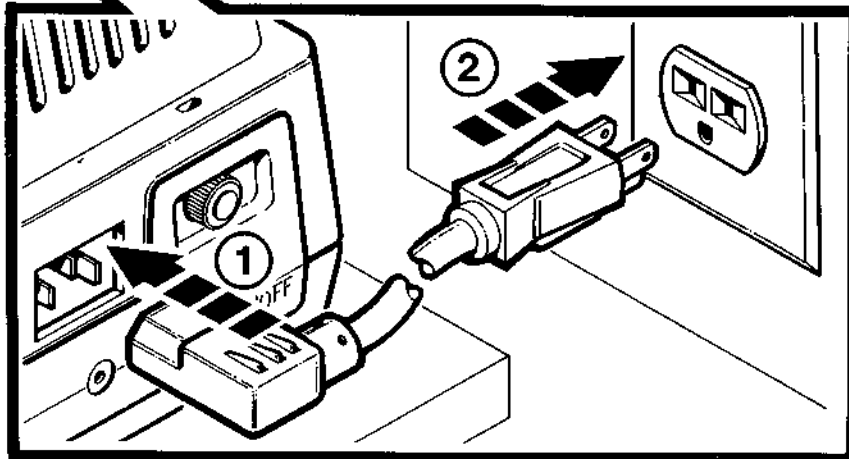
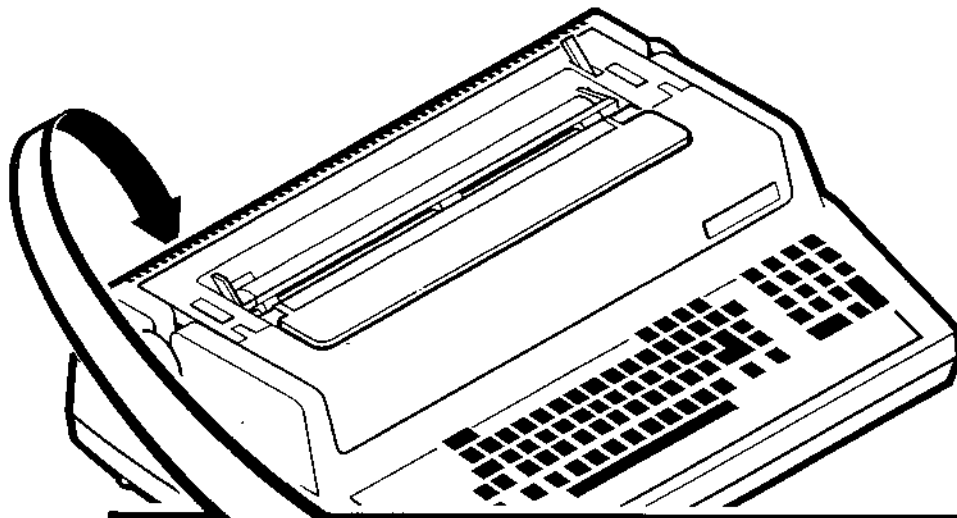




12.1 Slide the back edge of the access cover under the lip in the printer housing.

12.2 Press the access cover into its original position.

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13.1 Plug the ac power cord into the back of the printer.

13.2 Plug the ac power cord into a nonswitched, three-prong, grounded outlet.

MA-9249



