

# IBM / Technical Newsletter

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**IBM 5103**  
**Printer**  
**Maintenance Information Manual**

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This Technical Newsletter provides replacement pages for the subject publication. Pages to be inserted and/or removed are:

1-7, 1-8

1-51, 1-51.1

1-51.2, 1-52

Reader's comment form

A technical change to the text or to an illustration is indicated by a vertical line to the left of the change.

**Summary of Amendments**

Additions to text have been made for the inclusion of ribbon cartridge procedures. Minor alterations of text have been made for accuracy and clarity.

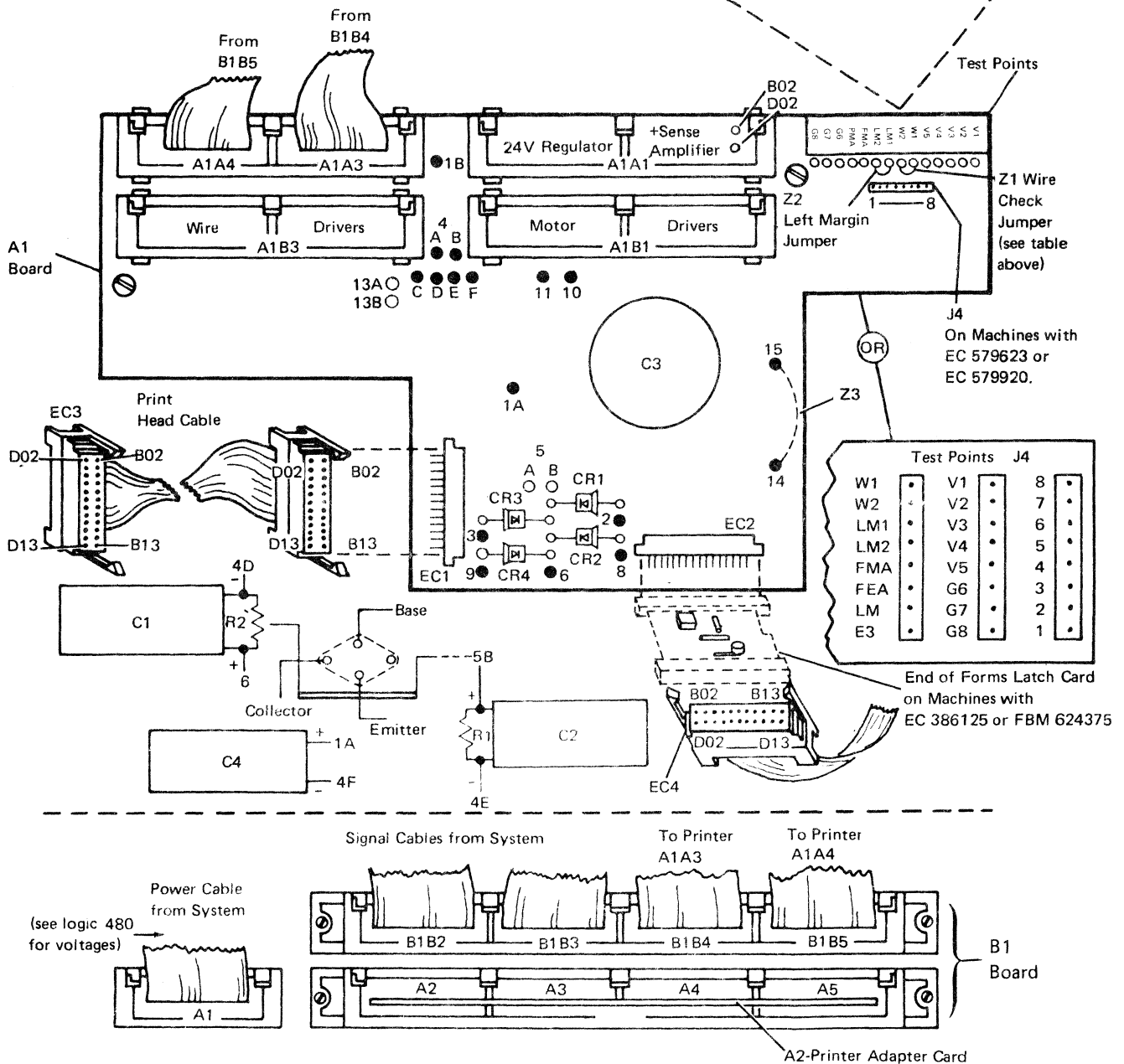
**Note.** Please file this cover letter at the back of the manual to provide a record of changes.



# 304 POWER SUPPLY BOARD A1 AND PRINTER ADAPTER BOARD B1

Maintenance

Test Points	Tolerance	
V1	+24 Vdc	21.6 Vdc 26.4 Vdc
V2	+30 Vdc	27.0 Vdc 40.0 Vdc
V3	+10.8 Vdc	8.1 Vdc 15.0 Vdc
V4	+5 Vdc	4.6 Vdc 5.5 Vdc
V5	+5 Vdc	4.6 Vdc 5.5 Vdc
W1	Wire On	
W2	Sets Wire Check (to adapter)	
LM1	Left Margin	
LM2	Left Margin (to adapter)	
FMA	A Forms Drive	
PMA	A Print Head Driver	
G6;7	Ground from A1A3, A4	
G8	Ground from A1A4	



## Covers

### 310 PRINTER COVER

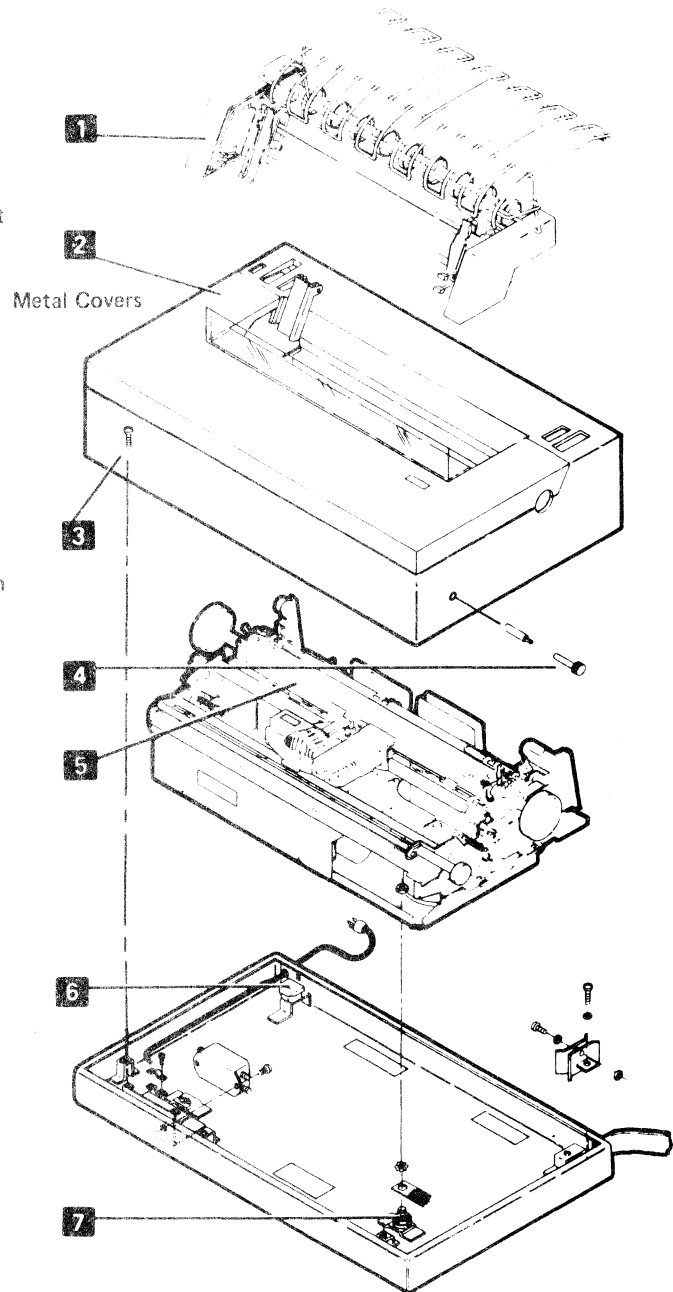
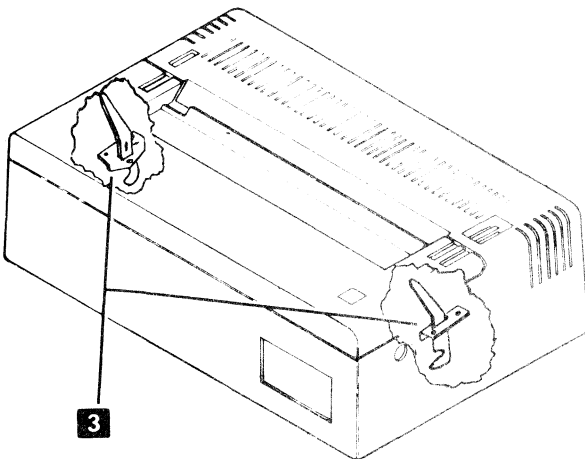
#### Adjustment

1. Center the platen knobs vertically and maintain a gap of 1/8 inch to 5/32 inch (3.18 mm to 3.96 mm) between the top cover **2** and the forms tractor **1** by adjusting the pads **6** in back and the double nuts in front.
2. Position the printer horizontally on the double nut studs **7** to center the paper release lever.

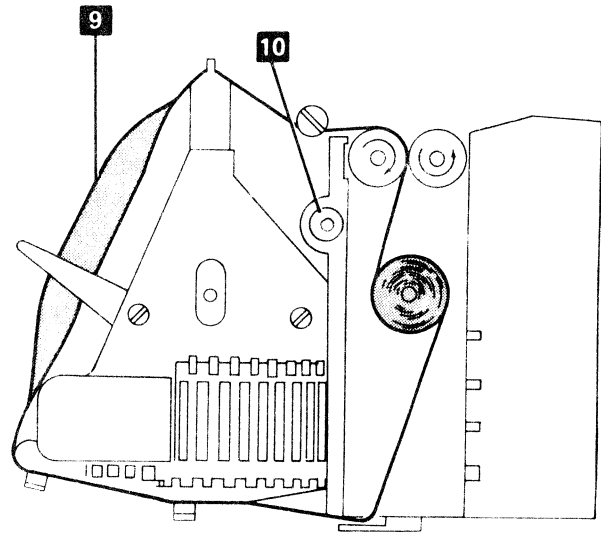
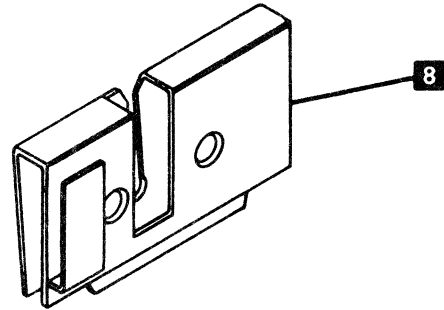
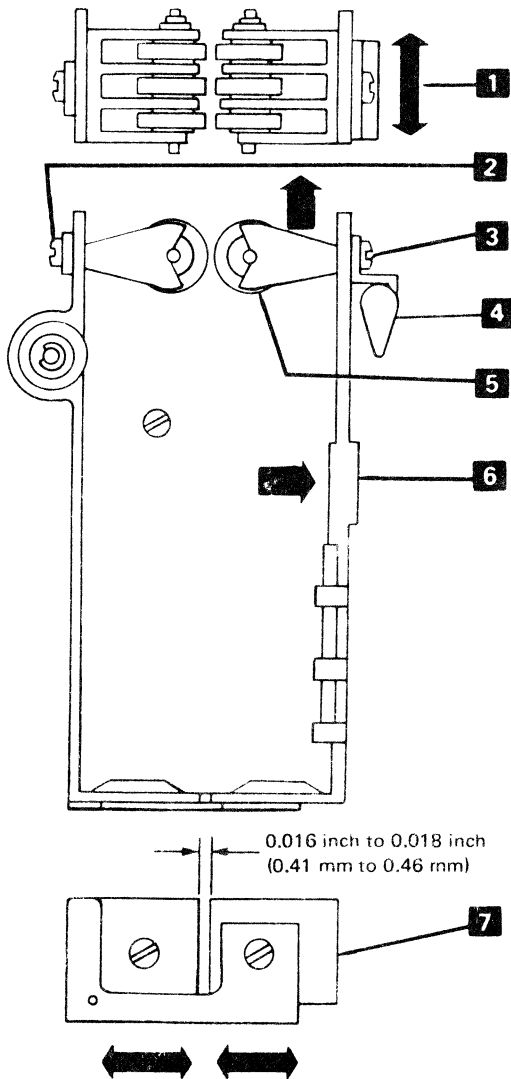
#### Removal

1. Power down.
2. Remove the forms tractor unit (324). **1**
3. Remove the platen (320). **5**
4. Pull off the horizontal fine adjustment knob **4** on metal covers; on plastic covers, loosen the set screw first.
5. Remove the sliding covers if the machine has plastic covers.
6. Loosen the fasteners **3** and remove the covers. Some covers have screws for fasteners.
7. To replace, reverse this procedure.

#### Plastic Covers



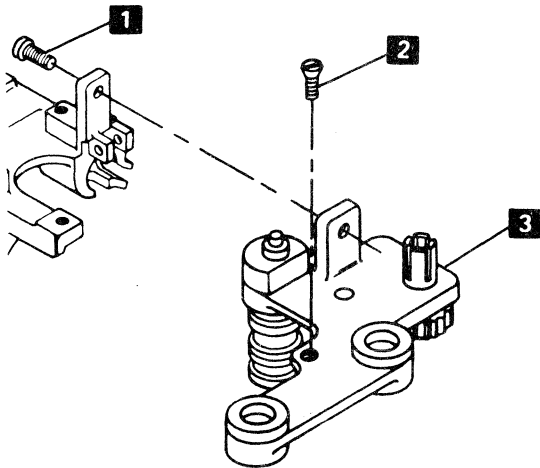
9. Thread the other end of the ribbon as shown. The half twist should now be beside the horizontal guides.
10. Take up ribbon slack by rotating the knurled knob **10**. Guide the ribbon between the horizontal guides so that 1/4 turn counterclockwise is on each side of the guide.
11. Close the cover, restore the forms tractor to operating position, and power up.



## **377** RIBBON CARTRIDGE ADAPTER PLATE ASSEMBLY

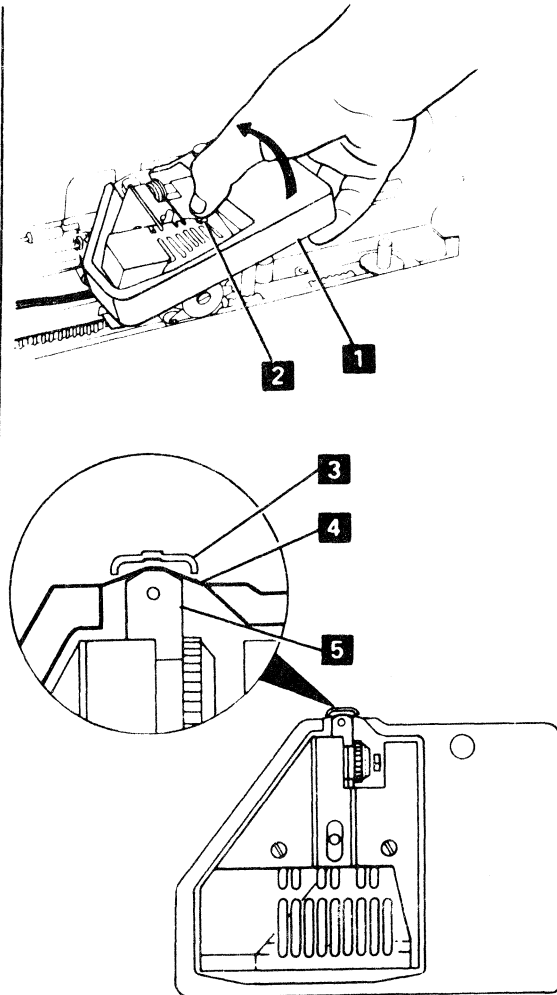
### **Removal**

1. Power down.
2. Remove the printer cover (310).
3. Remove the ribbon cartridge (379).
4. Remove the print head cover (360).
5. Remove the ribbon drive lines (373).
6. Remove the adapter plate assembly mounting screws **1** and **2**.
7. Lift the adapter plate assembly **3** from the machine.
8. To reinstall the adapter plate assembly, reverse this procedure.



## 378 RIBBON CARTRIDGE CHANGING



1. Power down.
2. Open the top cover.
3. Grasp the cartridge **1** in your right hand. Press your thumb down on the cover mounting screw **2** while lifting the wide part of the cartridge until the cartridge releases upward.
4. Lift the cartridge free of the print head and dispose of the cartridge.
5. Obtain a new ribbon cartridge.
6. Guide the exposed ribbon **4** between the print head tip **5** and the ribbon shield **3**.
7. Lower the cartridge into place around the print head. Press down on the cartridge until it firmly seats.
8. Move the print head left and right to ensure proper seating of the cartridge and proper feeding of the ribbon. The ribbon should move freely, right-to-left past the print head tip.
9. Close the cover and power up.









## Power

### 380 POWER TRANSFORMER

#### Removal

1. Remove power to the printer.
2. Separate the printer from the power supply (311).
3. Remove the following leads from TB1:
  - a. Neutral TB1-10 and check the TB1 connection is shown in the chart on 381. (Remove the leads from the bottom side of TB1.)
  - b. Fan leads TB1-7 and TB1-8.
4. Remove the four transformer mounting screws.
5. Remove the two screws that hold the fan bracket .
6. Disconnect the secondary leads from the power supply board , , and .
7. Lift out the transformer and fan.



#### Replacement

1. Connect the fan leads to the new transformer.
2. Set the transformer in place, being sure that the star washer  is under the left rear leg of the transformer (viewed from the front of the printer).
3. Install the four mounting screws  on the transformer legs.
4. Connect the secondary leads from the power supply board as follows:
  - a. Black into 4B (lead 12) and 4C (lead 13) .
  - b. Blue into 3 (lead 14) and 4 (lead 15) .
  - c. Red into 2 (lead 11) and 8 (lead 17) .
5. Install the fan (two screws .
6. Connect the neutral lead from TB1 to the power supply TB1 lead as shown on 381.
7. Complete the procedure by attaching the printer to the power supply (311).

**Note:** Transformers with an internal ground lead require a ground lead that must be connected to the capacitor box when installing the transformer.

### 381 FAN

#### Removal

1. Power down.
2. Remove the printer covers and separate the printer from the power supply (311).
3. Remove the two fan leads from the transformer side of TB1-7 and TB1-10 .
4. Remove the two fan bracket mounting screws .
5. Lift the fan assembly out. (Make sure that the bracket clears the power supply board.)
6. Remove the fan from the bracket. When reinstalling the bracket, be sure that the air flow direction arrow on the fan points toward the bracket.
7. Reinstall the fan by reversing this procedure.



## READER'S COMMENT FORM

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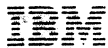


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