

“DATASPEED\*” 40 PRINTER

INSTALLATION

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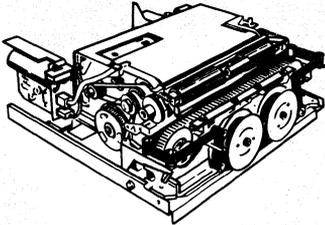
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1. GENERAL

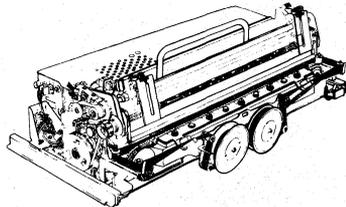
1.01 This section provides installation for the DATASPEED 40 printer, friction and tractor feed, 80- and 132-column (Fig. 1).

1.02 This section is reissued to add information concerning the paper jam alarm, to add optioning information and to clarify information covering adjustments which may have to be refined depending on forms used in a particular installation.

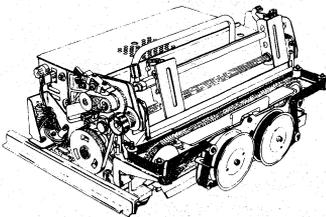
40P101 or 40P102  
Friction Feed Printer  
(80-Column)



40P201, 40P202, 40P203 or 40P204  
Tractor Feed Printer  
(132-Column)



40P151, 40P153 or  
40P154 Tractor Feed  
Printer (80-Column)



40P253 Forms Access  
Tractor Feed Printer  
(80-Column)

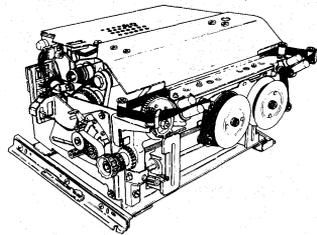


Fig. 1—DATASPEED 40 Printers

*Note:* When ordering replaceable parts or components, unless otherwise specified, prefix each part number with the letters "TP" (ie, TP410055).

2. UNPACKING

FRICITION FEED PRINTER

2.01 Open carton and remove polysterene pack. Remove printer from polysterene pack (Fig. 2).

*Note:* Retain polysterene pack for transporting the printer locally.

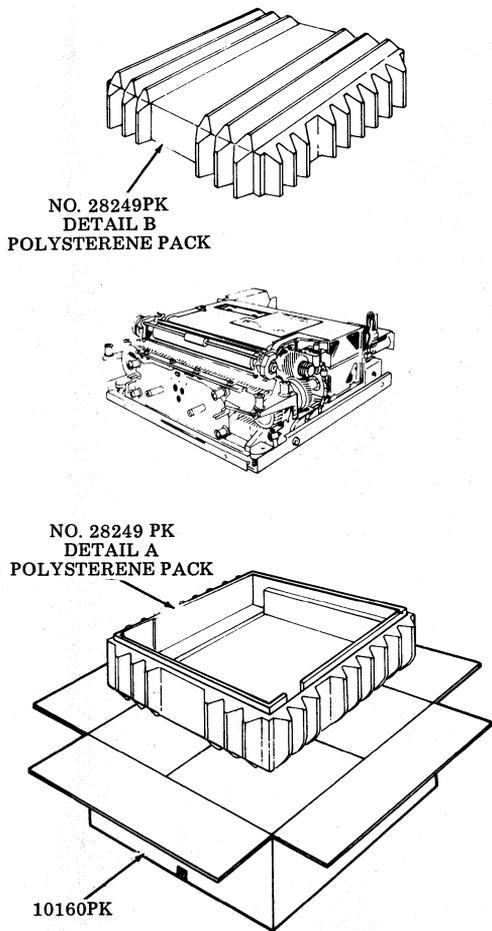


Fig. 2—Printer Carton and Pack

FRICITION FEED PRINTER CABINET

2.02 Unpack the cabinet and open the lid.

*Danger:* Shipping bar is under heavy spring tension — RELEASE SLOWLY (Fig. 3).

Carefully depress the bar, disengage latch from bar and slowly release the bar. Remove shipping latch and bar. Discard. If printer is to be shipped at a later date, retain bar and latch.

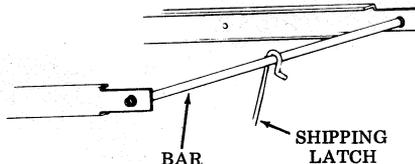


Fig. 3—Shipping Bar and Latch

TRACTOR FEED PRINTER

2.03 80-Column — Open carton and remove pack. Remove printer from polysterene pack (Fig. 4).

*Note:* Retain polysterene pack for transporting the printer locally.

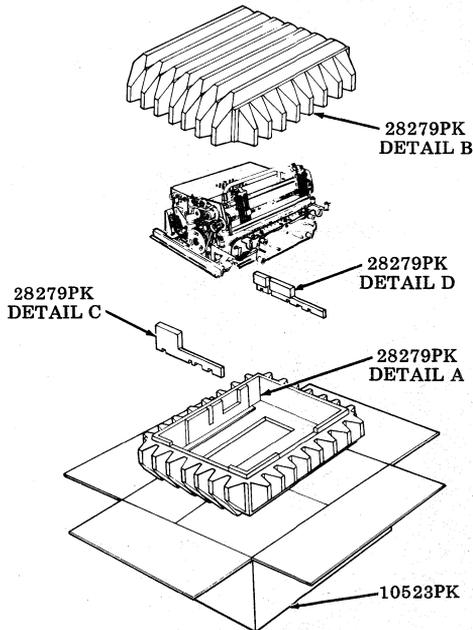


Fig. 4—Printer Carton and Pack

2.04 132-Column and Forms Access — Open printer carton and remove corner details (Fig. 5).

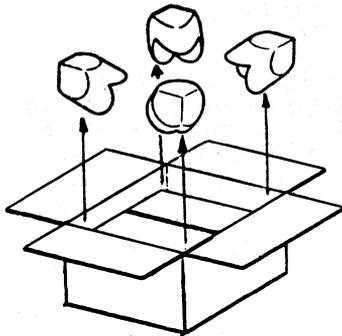


Fig. 5—Printer Carton Packing Details

2.05 Lift printer carton out, open it and remove packing detail (Fig. 6). Lift printer out.

2.06 Remove packing details from the printer (Fig. 6).

2.07 40P203 and 40P204 Printer — Remove ribbon cartridge set and meter roller set from well in top packing detail. Installation instructions for these reinking mechanism parts are included in the carton.

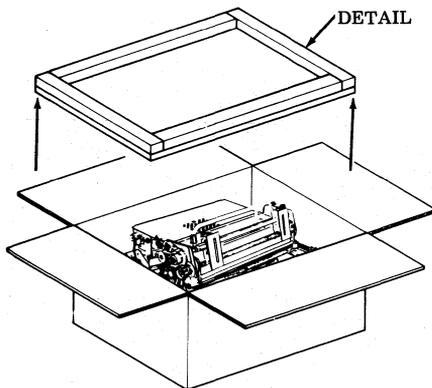


Fig. 6—Printer Packing Details

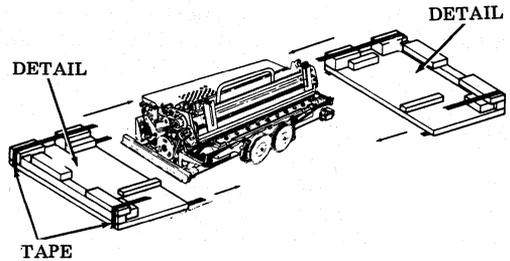


Fig. 6—Printer Packing Details (Contd)

### 3. VISUAL INSPECTION

3.01 Look for any pinched or crimped wires or cables. Check that no terminal pins are bent or damaged. Make sure all connectors are seated properly and securely.

### 4. GROUNDING PRECAUTIONS

4.01 The 410071, 410072, 410076, 410640 and 410729 printer circuit cards contain MOS logic which requires careful handling. If the printer card is not already installed in the unit, it should be handled while stored in its protective 406260 static bag (Fig. 7).

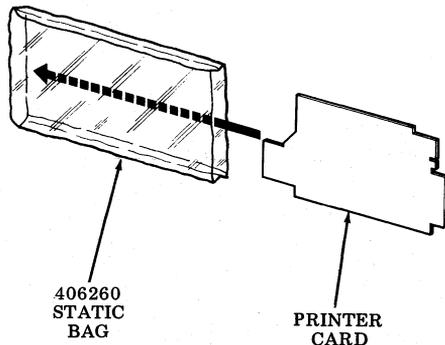


Fig. 7—Circuit Card Protective Bag

- 4.02 The 346392 static discharge strap must be worn when handling the printer card outside its protective bag. Attach the strap tightly to wrist as shown in Fig. 8. Attach clip end of static discharge strap to frame ground.

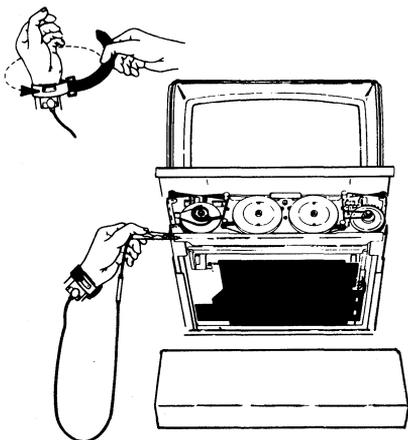


Fig. 8—346392 Static Discharge Strap

## 5. OPTION CIRCUIT CARD

### GENERAL

*Warning: Install the 346392 static discharge strap before removing the 410076 or 410640 circuit card.*

- 5.01 This part includes all printer options that are utilized in the printer. It also covers handling of circuit cards, removal of the 410076 or 410640 circuit card, location of the circuit card switch packs, and information on how to activate or change switch positions.

- 5.02 The options enabled should be checked on the Printer Options Record. (See 5.22.)

### REMOVE 410076 OR 410640 CIRCUIT CARD FROM 80-COLUMN FRICTION FEED PRINTER

- 5.03 Remove two screws that secure circuit card cover to the bottom of the printer and allow cover to hang down (Fig. 9).

- 5.04 Using finger hold and a firm grip of the card edge on opposite side as shown in Fig. 9, apply an even pulling force and unplug card from the two rows of magnet assembly contacts.

- 5.05 Lift left (bottom) end of card up and out of channel (bypassing printer base shipping screws) first, then right side of card up and out. Remove card from connector. Refer to paragraph 5.14 or 5.19 for options on the printer logic card.

*Note: During reassembly, make certain that the connector is plugged onto the card and that the card is located within the channel before plugging it into the two rows of magnet assembly contacts. Apply slight pressure at both ends and middle of card to fully seat it on magnet contacts.*

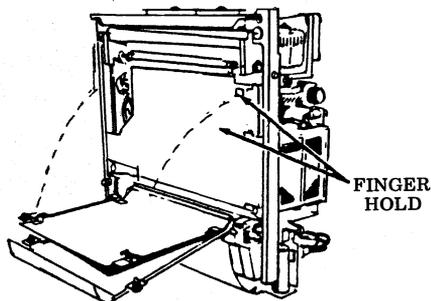


Fig. 9—Circuit Card Removal

### REMOVE 410076 OR 410640 CIRCUIT CARD FROM 80-COLUMN TRACTOR FEED PRINTER (Fig. 10)

- 5.06 Remove two top screws and loosen three bottom screws.
- 5.07 Slide bottom plate out.
- 5.08 Remove connector from card; using pull points, pull card down and out. Refer to paragraph 5.14 or 5.19 for options on the printer logic card.

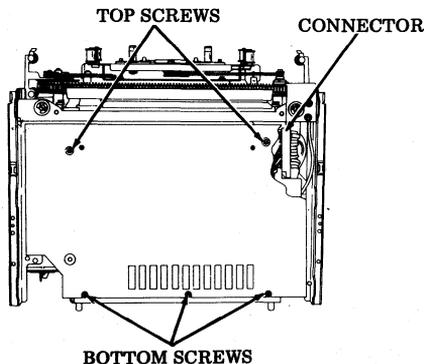


Fig. 10—Tractor Feed Printer Bottom Plate

OPTIONING THE 410071 CIRCUIT CARD FOR 40P253 80-COLUMN FORMS ACCESS TRACTOR FEED PRINTER OR 40P154 80-COLUMN TRACTOR FEED PRINTER

5.09 It is not necessary to remove the 410071 circuit card from the printer in order to option it. Option switches on the card are accessible through openings in the bottom plate of the printer (Fig. 11 and 12). Refer to paragraph 5.16 for options on the printer logic card.

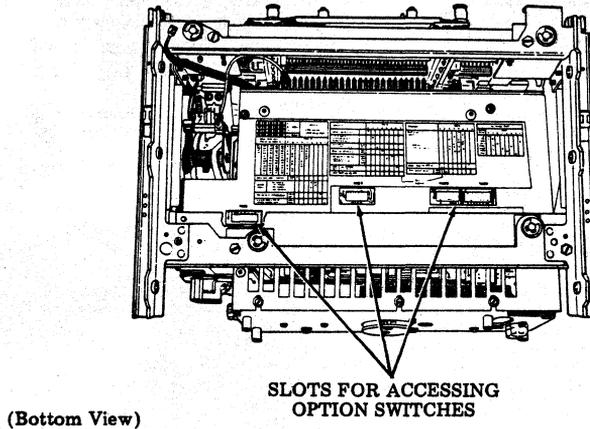


Fig. 11—Forms Access Printer (80-Column)

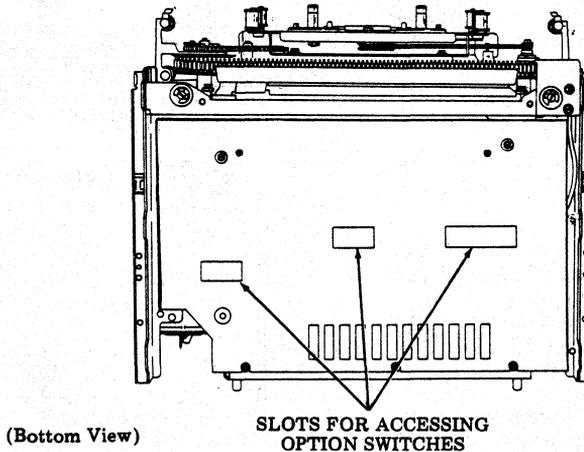
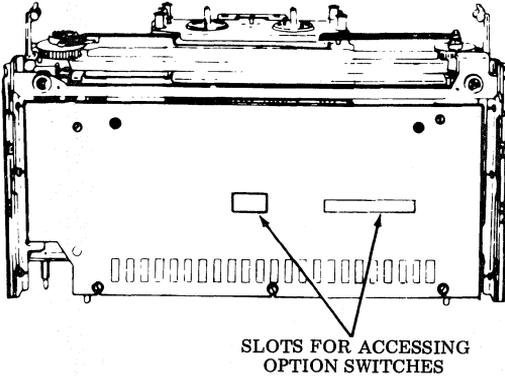


Fig. 12—40P154 Printer (80-Column)

**OPTIONING THE 410072 OR 410729 CIRCUIT CARD FOR 132-COLUMN TRACTOR FEED PRINTER**

5.10 It is not necessary to remove the 410072 or 410729 circuit card from the printer in order to option it. Option switches on the card are accessible through openings in the bottom plate of the printer (Fig. 13). Refer to paragraph 5.15 or 5.18 for options on the printer logic card.



(Bottom View)

Fig. 13—132-Column Printer

**PRINTER OPTIONS**

5.11 Options are presented in a tabular format as illustrated in Fig. 14.

OPTION NO.	ROCKER SWITCH NUMBERS (See Fig. 15)	LOCATION OF SWITCH ON CIRCUIT CARD					INDICATES FACTORY PROGRAMMED OPTION
		1	2	3	4	5	
5.							
a.		●	-	-	-	-	*
b.		○	-	-	-	-	*
c.		-	●	-	-	-	*
d.		-	○	-	-	-	*
e.		-	-	○	-	-	*
f.		-	-	-	●	-	*

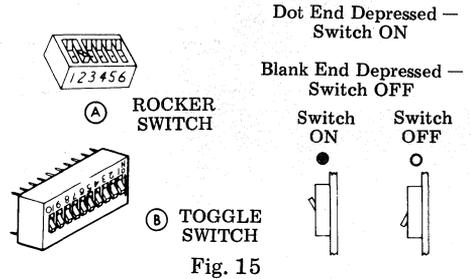
Legend:

- Indicates switch ON — dot end of rocker switch depressed.
- Indicates switch OFF — blank end of rocker switch depressed.
- Switch position does not affect option.
- \* Factory programmed.

Fig. 14

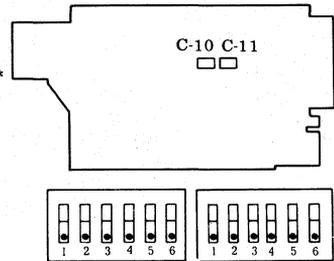
5.12 Printer card option switches are addressed as in the illustrations accompanying the specific option activation information (Fig 15).

5.13 A number of different switches have been used to option cards. Fig. 15 shows rocker switch (A), and toggle switch (B), and their respective ON/OFF positions.



5.14 410640 — 80-Column Printer Logic Circuit Card

17. Printer Margin and Form Width		C-10						C-11					
		1	2	3	4	5	6	1	2	3	4	5	6
c.	Last Character on 80th Column	—	—	—	—	—	—	○	●	●	○	—	—
d.79.	Last Character on 79th Column	—	—	—	—	—	—	○	—	—	—	—	—
d.78.	Last Character on 78th Column	—	—	—	—	—	—	●	○	○	●	—	—
d.77.	Last Character on 77th Column	—	—	—	—	—	—	●	○	●	○	—	—
d.76.	Last Character on 76th Column	—	—	—	—	—	—	●	○	—	—	—	—
d.75.	Last Character on 75th Column	—	—	—	—	—	—	—	—	—	—	—	—
d.74.	Last Character on 74th Column	—	—	—	—	—	—	●	●	●	○	—	—
d.73.	Last Character on 73rd Column	—	—	—	—	—	—	●	●	●	●	—	—



Note: Options 17a and 17b are not used.

18. Printer Paper Feedout		C-10						C-11					
		1	2	3	4	5	6	1	2	3	4	5	6
a.	No Paper Feedout	●	—	—	—	—	—	—	—	—	—	—	○
b.	Paper Feedout on DSR or RM Loss — 16 Lines or One Form	○	—	—	—	—	—	—	—	—	—	—	○
c.	Paper Feedout on DSR or RM Loss or ETX — 16 Lines or One Form	○	—	—	—	—	—	—	—	—	—	—	●

C-10

C-11

19. Printer Errored Character Symbol		C-10						C-11					
		1	2	3	4	5	6	1	2	3	4	5	6
a.	Printed on Even Parity Error	—	—	—	●	○	—	—	—	—	—	—	—
b.	Printed on Odd Parity Error	—	—	—	○	●	—	—	—	—	—	—	—
c.	Not Printed on Parity Error	—	—	—	●	●	—	—	—	—	—	—	—
d.	Printers with 96 Character Set	—	●	○	—	—	—	—	—	—	—	—	—
e.	Printers with 64 Character Set	—	○	●	—	—	—	—	—	—	—	—	—
f.	Printers with Extended ASCII Character Set	—	○	○	—	—	—	—	—	—	—	—	—

21. Foldover on Up-Low Printer		C-10						C-11					
		1	2	3	4	5	6	1	2	3	4	5	6
a.	Lower Case and Upper Case Print	—	—	—	—	—	—	—	—	—	—	—	○
b.	Lower Case Prints as Upper Case	—	—	—	—	—	—	—	—	—	—	—	●

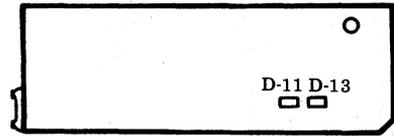
22. Foldover on Monospace Printer		C-10						C-11					
		1	2	3	4	5	6	1	2	3	4	5	6
a.	Lower Case Prints as Error Symbol	—	—	—	—	—	—	—	—	—	—	—	○
b.	Lower Case Prints as Upper Case	—	—	—	—	—	—	—	—	—	—	—	●

23. Extended ASCII on Printer (Extended ASCII)		C-10						C-11					
		1	2	3	4	5	6	1	2	3	4	5	6
a.	†Prints Extended ASCII Characters (No Parity Check)	—	—	—	○	○	—	—	—	—	—	—	—
b.	Does Not Print Extended Characters (See Option 19.a., b., or c.)	—	—	—	—	—	—	—	—	—	—	—	—

†Option 23a requires local engineering.

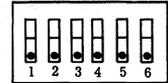
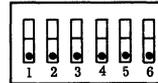
5.15 410729 — 132-Column Printer Logic Circuit Card

17. Printer Margin and Form Width		D-11					D-13					
		6	5	4	3	2	1	6	5	4	3	2
e.	Last Character on Column 132	--	--	--	--	--	○	○	○	○	--	--
f.131.	Last Character on Column 131	--	--	--	--	--	○	○	○	○	--	--
f.130.	Last Character on Column 130	--	--	--	--	--	○	○	○	○	--	--
f.129.	Last Character on Column 129	--	--	--	--	--	○	○	○	○	--	--
f.128.	Last Character on Column 128	--	--	--	--	--	○	○	○	○	--	--
f.127.	Last Character on Column 127	--	--	--	--	--	○	○	○	○	--	--
f.126.	Last Character on Column 126	--	--	--	--	--	○	○	○	○	--	--
f.125.	Last Character on Column 125	--	--	--	--	--	○	○	○	○	--	--
f.124.	Last Character on Column 124	--	--	--	--	--	○	○	○	○	--	--
f.123.	Last Character on Column 123	--	--	--	--	--	○	○	○	○	--	--
f.122.	Last Character on Column 122	--	--	--	--	--	○	○	○	○	--	--
f.121.	Last Character on Column 121	--	--	--	--	--	○	○	○	○	--	--



D-11

D-13



Note: Options 17a, 17b, 17c and 17d are not used.

18. Printer Paper Feedout		D-11					D-13					
		6	5	4	3	2	1	6	5	4	3	2
a.	No Paper Feedout	--	●	--	--	--	--	--	--	--	--	○
b.	Paper Feedout on DSR or RM Loss — 16 Lines or One Form	--	○	--	--	--	--	--	--	--	--	○
c.	Paper Feedout on DSR or RM Loss or ETX — 16 Lines or One Form	--	○	--	--	--	--	--	--	--	--	●

(410729 printer circuit card viewed from beneath printer — access to switches is through a cutout in bottom of printer.)

19. Printer Errored Character Symbol		D-11					D-13					
		6	5	4	3	2	1	6	5	4	3	2
a.	Printed on Even Parity Error	--	--	●	○	--	--	--	--	--	--	--
b.	Printed on Odd Parity Error	--	--	○	●	--	--	--	--	--	--	--
c.	Not Printed on Parity Error	--	--	●	●	--	--	--	--	--	--	--
d.	Printers With 96-Character Set	○	○	--	--	--	--	--	--	--	--	--
e.	Printers With 64-Character Set	○	●	--	--	--	--	--	--	--	--	--
f.	Printers With Extended ASCII Character Set	○	○	--	--	--	--	--	--	--	--	--
g.	Printers With Longest Char. Set Having Less Than 64 Char.	○	●	--	--	--	--	--	--	--	--	--

21. Foldover on Up-Low Printer		D-11					D-13						
		6	5	4	3	2	1	6	5	4	3	2	1
a.	Lower Case and Upper Case Print	--	--	--	--	--	--	--	--	--	--	○	--
b.	Lower Case Prints as Upper Case	--	--	--	--	--	--	--	--	--	--	●	--

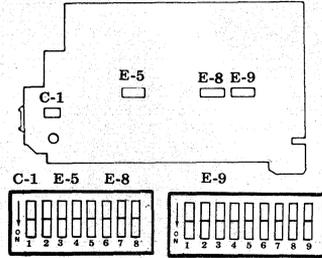
22. Foldover on Monocase Printer		D-11					D-13						
		6	5	4	3	2	1	6	5	4	3	2	1
a.	Lower Case Prints as Error Symbol	--	--	--	--	--	--	--	--	--	--	○	--
b.	Lower Case Prints as Upper Case	--	--	--	--	--	--	--	--	--	--	●	--

23. Extended ASCII on Printer (Extended ASCII)		D-11					D-13						
		6	5	4	3	2	1	6	5	4	3	2	1
a.	Prints Extended ASCII Characters (No Parity Check)	--	--	○	○	--	--	--	--	--	--	--	--
b.	Does Not Print Extended ASCII (See Option 19a, b, or c.)	--	--	--	--	(As in 19.)	--	--	--	--	--	--	--

48. Incomplete Form Suppresses Paper Alarm		D-11					D-13						
		6	5	4	3	2	1	6	5	4	3	2	1
a.	No (Paper-Out Not Gated With Formout)	--	--	--	--	●	--	--	--	--	--	--	--
b.	Yes (Paper-Out Gated With Formout)	--	--	--	--	○	--	--	--	--	--	--	--

5.16 410071 80-Column Tractor Feed Printer Logic Circuit Card

17. Printer Left Margin and Form Width			E-5							
		80-Column Printer	1	2	3	4	5	6	7	8
a.	First Printed Column	Column 1	—	—	●	●	●	●	—	—
b.2.	First Printed Column	Column 2	—	—	●	●	○	●	—	—
b.3.	First Printed Column	Column 3	—	—	●	●	○	○	—	—
b.4.	First Printed Column	Column 4	—	—	—	○	○	○	—	—
b.5.	First Printed Column	Column 5	—	—	○	○	●	○	—	—
b.6.	First Printed Column	Column 6	—	—	○	○	○	○	—	—
b.7.	First Printed Column	Column 7	—	—	○	●	○	○	—	—
b.8.	First Printed Column	Column 8	—	—	○	○	●	○	—	—
b.9.	First Printed Column	Column 9	—	—	○	○	○	●	—	—
b.10.	First Printed Column	Column 10	—	—	○	●	○	●	—	—
b.11.	First Printed Column	Column 11	—	—	●	○	○	○	—	—
b.12.	First Printed Column	Column 12	—	—	○	○	○	○	—	—
b.13.	First Printed Column	Column 13	—	—	○	●	●	○	—	—



(Printer circuit card viewed from beneath printer — access to switches is through a cutout in bottom pan of printer.)

17. Printer Right Margin and Form Width			SWITCH SETTINGS (Preliminary)																							
		80-Col. Printer — Last Printed Column	E-9									E-5								E-8						
			1	2	3	4	6	7	8	9	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
c	80	○	●	—	○	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
d (X)	73 61 49 37 25	●	○	●	●	—	—	—	—	—	●	—	—	—	—	—	—	—	—	—	—	—	—	—	—	●
	74 62 50 38 26	○	●	—	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	●
	75 63 51 39 27	●	○	●	●	—	—	—	—	—	●	—	—	—	—	—	—	—	—	—	—	—	—	—	—	●
	76 64 52 40 28	●	○	●	○	—	—	—	—	—	●	—	—	—	—	—	—	—	—	—	—	—	—	—	—	●
	77 65 53 41 29	○	●	○	○	—	—	—	—	—	●	—	—	—	—	—	—	—	—	—	—	—	—	—	—	●
	78 66 54 42 30	●	○	○	○	—	—	—	—	—	●	—	—	—	—	—	—	—	—	—	—	—	—	—	—	●
	79 67 55 43 31	●	○	●	○	—	—	—	—	—	●	—	—	—	—	—	—	—	—	—	—	—	—	—	—	●
	68 56 44 32	○	●	○	○	—	—	—	—	—	●	—	—	—	—	—	—	—	—	—	—	—	—	—	—	●
	69 57 45 33	●	○	●	○	—	—	—	—	—	●	—	—	—	—	—	—	—	—	—	—	—	—	—	—	●
	70 58 46 34	●	○	○	○	—	—	—	—	—	●	—	—	—	—	—	—	—	—	—	—	—	—	—	—	●
71 59 47 35	○	●	○	○	—	—	—	—	—	●	—	—	—	—	—	—	—	—	—	—	—	—	—	—	●	
72 60 48 36	●	○	○	○	—	—	—	—	—	●	—	—	—	—	—	—	—	—	—	—	—	—	—	—	●	

X = last column to be printed

18. Printer Paper Feedout		E-8							
		1	2	3	4	5	6	7	8
a.	No Paper Feedout	—	—	●	—	—	—	—	—
b.	Paper Feedout on D8R or RM Loss — 16 Lines or One Form	—	○	○	—	—	—	—	—
c.	Paper Feedout on D8R or RM Loss or ETX — 16 Lines or One Form	—	●	○	—	—	—	—	—

19. Printer Errored Character Symbol		E-9								
		1	2	3	4	5	6	7	8	9
a.	Printed on Even Parity Error	—	—	—	—	—	○	●	—	—
b.	Printed on Odd Parity Error	—	—	—	—	—	●	○	—	—
c.	Not Printed on Parity Error	—	—	—	—	—	○	●	—	—

19. Character Set		E-8							
		1	2	3	4	5	6	7	8
d.	Printers With 96-Character Set	—	—	—	—	○	○	—	—
e.	Printers With 64-Character Set	—	—	—	—	○	●	—	—
f.	Printers With Extended ASCII Character Set	—	—	—	—	○	○	—	—
g.	Printers With Longest Character Set Having Less Than 64 Characters	—	—	—	—	○	○	—	—

21. Foldover on Printers With 96-Character Set		E-8							
		1	2	3	4	5	6	7	8
a.	Lower Case and Upper Case Print	○	—	—	—	—	—	—	—
b.	Lower Case Prints as Upper Case	●	—	—	—	—	—	—	—

22. Foldover on Printers With 64-Character Set		E-8							
		1	2	3	4	5	6	7	8
a.	Lower Case Prints as Error Symbol	○	—	—	—	—	—	—	—
b.	Lower Case Prints as Upper Case	●	—	—	—	—	—	—	—

23. Extended ASCII on Printer (Extended ASCII)		E-9								
		1	2	3	4	5	6	7	8	9
a.	Prints Extended ASCII Characters (No Parity Check)	—	—	—	—	○	○	—	—	—
b.	Does Not Print Extended ASCII (See Option 19a, b, or c.)	—	—	—	(As in 19.)	—	—	—	—	—

48. Incomplete Form Suppresses Paper Alarm		E-9								
		1	2	3	4	5	6	7	8	9
a.	No (Paper-Out Not Gated With Form-Out)	—	—	—	—	—	—	—	—	—
b.	Yes (Paper-Out Gated With Form-Out)	—	—	—	—	—	—	—	○	●

54. Printing of Escape Sequences Suppressed		E-9								
		1	2	3	4	5	6	7	8	9
a.	Character After ESC Printed as Received	—	—	—	—	—	—	—	—	—
b.	Printing of Character After ESC Suppressed	—	—	—	—	—	—	—	—	●

55. SI/SO Detection		E-9								
		1	2	3	4	5	6	7	8	9
a.	SI/SO Detection Not Used	—	—	○	—	—	—	—	—	—
b.	SI/SO Detection Enables Printing Additional Characters	—	—	●	—	—	—	—	—	—

57. SSI/OEM Interface		E-8							
		1	2	3	4	5	6	7	8
a.	SSI	—	—	—	—	—	—	●	—
b.	OEM‡	—	—	—	—	—	—	○	—

‡ An option screw change may be required on 410151 circuit card in power module. If Option 57b is selected, option screw B on 410151 must be installed from the component side.

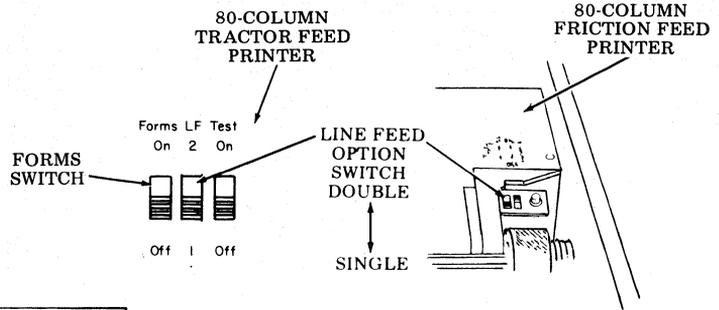
58. Idle Line Motor Control		E-8							
		1	2	3	4	5	6	7	8
a.	Disabled — Motor Held On Indefinitely During Idle Line				○				
b.	Enabled — Motor Turned Off After 40-Second Idle Line				●				

59. Speed Selection (Applies only if Option 57b is selected)		C-1							
		1	2	3	4	5	6	7	8
a.	75 Baud	●	○	○	○	○	○	○	○
b.	150 Baud	○	●	○	○	○	○	○	○
c.	300 Baud	○	○	○	○	○	○	○	●
d.	600 Baud	○	○	●	○	○	○	○	○
e.	1200 Baud	○	○	○	○	○	●	○	○
f.	2400 Baud	○	○	○	●	○	○	○	○
g.	4800 Baud	○	○	○	○	○	●	○	○
h.	9600 Baud	○	○	○	○	○	○	○	○

60. Aux Alarm (See Note)		E-5							
		1	2	3	4	5	6	7	8
a.	Enable	—	○	—	—	—	—	—	—
b.	Disable	—	●	—	—	—	—	—	—

Note: Auxiliary Alarm is for future use. Aux Alarm Disabled (Option 60b) is required selection when alarm mechanism is not present. Paper jam alarm (402920 modification kit) is not Aux Alarm.

5.17 Switches on Printer



LF Switch

20. Line Feed	
a.	Single
b.	Double

Forms Switch

39. Forms (Tractor Feed Printer Only)	
a.	On
b.	Off

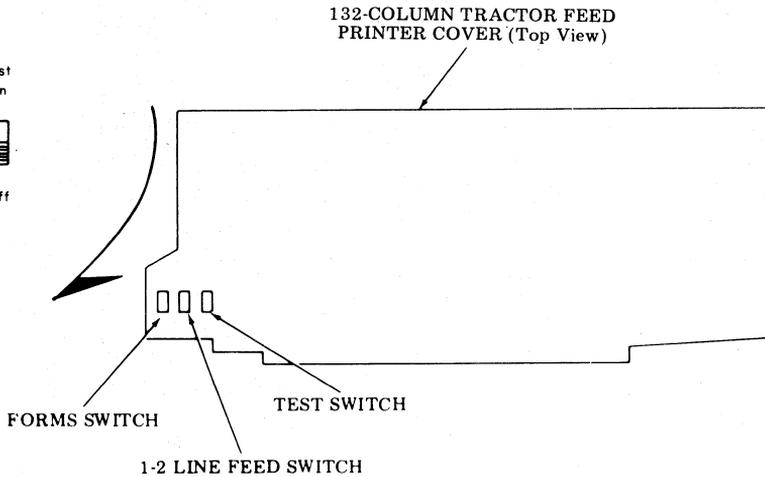


Fig. 16



SECTION 582-210-200

23. Extended ASCII on Printer (Extended ASCII)		D-10							
		1	2	3	4	5	6	7	8
a.	Prints Extended ASCII Characters (No Parity Check)	-	-	-	-	-	○	○	-
b.	Does Not Print Extended ASCII (See Option 19a, b, or c.)	-	-	-	(As in 19.)	-	-	-	*

48. Incomplete Form Suppresses Paper Alarm		D-9							
		1	2	3	4	5	6	7	8
a.	No (Paper-Out Not Gated With Form-Out)	-	-	-	●	-	-	-	-
b.	Yes (Paper-Out Gated With Form-Out)	-	-	-	○	-	-	-	*

54. Printing of Escape Sequences Suppressed		D-10							
		1	2	3	4	5	6	7	8
a.	Character After ESC Printed as Received	-	-	-	-	-	-	-	○
b.	Printing of Character After ESC Suppressed	-	-	-	-	-	-	-	●

55. SI/SO Detection		D-10							
		1	2	3	4	5	6	7	8
a.	SI/SO Detection Not Used	-	-	○	-	-	-	-	*
b.	SI/SO Detection Enables Printing Additional Characters	-	-	●	-	-	-	-	*

57. SSI/OEM Detection		D-8								
		1	2	3	4	5	6	7	8	9
a.	SSI	-	-	-	-	-	-	-	-	●
b.	OEM ‡	-	-	-	-	-	-	-	-	○

‡ An option screw change may be required on 410151 circuit card in power module. If Option 57b is selected, option screw B on 410151 must be installed from the component side.

58. Idle Line Motor Control		D-9							
		1	2	3	4	5	6	7	8
a.	Disabled - Motor Held On Indefinitely During Idle Line	-	-	-	-	-	-	○	-
b.	Enabled - Motor Turned Off After 40-Second Idle Line	-	-	-	-	-	●	-	-

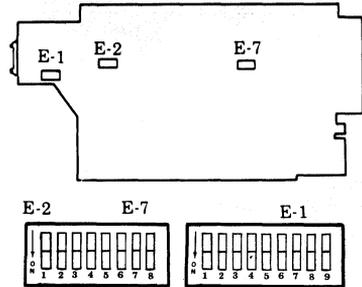
59. Speed Selection (Applies Only if Option 57b is Selected)		C-4							
		1	2	3	4	5	6	7	8
a.	75 Baud	●	○	○	○	○	○	○	○
b.	150 Baud	○	●	○	○	○	○	○	○
c.	300 Baud	○	○	○	●	○	○	○	○
d.	600 Baud	○	○	●	○	○	○	○	○
e.	1200 Baud	○	○	○	○	○	○	●	○
f.	2400 Baud	○	○	○	○	●	○	○	○
g.	4800 Baud	○	○	○	○	○	○	●	○
h.	9600 Baud	○	○	○	○	○	○	○	●

60. Aux Alarm (See Note)		D-9							
		1	2	3	4	5	6	7	8
a.	Enable	-	-	-	-	○	-	-	-
b.	Disable	-	-	-	-	●	-	-	*

Note: Auxiliary Alarm is for future use. Aux Alarm Disabled (Option 60b) is required selection when alarm mechanism is not present. Paper jam alarm (402920 modification kit) is not Aux Alarm.

5.19 410076 — 80-Column Printer Logic Circuit Card

17. Printer Left Margin and Form Width			E-7							
			1	2	3	4	5	6	7	8
a.	First Printed Column	Column 1	—	—	●	●	●	●	—	—
b.2.	First Printed Column	Column 2	—	—	●	●	○	—	—	—
b.3.	First Printed Column	Column 3	—	—	●	●	○	○	—	—
b.4.	First Printed Column	Column 4	—	—	●	○	○	○	—	—
b.5.	First Printed Column	Column 5	—	—	○	○	○	—	—	—
b.6.	First Printed Column	Column 6	—	—	○	○	●	●	—	—
b.7.	First Printed Column	Column 7	—	—	○	●	○	○	—	—
b.8.	First Printed Column	Column 8	—	—	●	○	●	○	—	—
b.9.	First Printed Column	Column 9	—	—	○	○	●	●	—	—
b.10.	First Printed Column	Column 10	—	—	○	●	○	●	—	—
b.11.	First Printed Column	Column 11	—	—	●	●	●	○	—	—
b.12.	First Printed Column	Column 12	—	—	●	○	○	●	—	—
b.13.	First Printed Column	Column 13	—	—	○	●	●	○	—	—



17. Printer Right Margin and From Width			SWITCH SETTINGS (Preliminary)																							
c.	Last Printed Column		E-1								E-2								E-7							
			1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
	80		—	—	—	—	○	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
d (X)	73 61 49 37 25		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	74 62 50 38 26		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	75 63 51 39 27		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	76 64 52 40 28		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	77 65 53 41 29		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	78 66 54 42 30		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	79 67 55 43 31		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	68 56 44 32		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	69 57 45 33		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70 58 46 34		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	71 59 47 35		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	72 60 48 36		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
			SWITCH SETTINGS (Final)																							
73 through 80		program as shown.																								
61 through 72		program as shown, then operate E-7 position 2 OFF.																								
49 through 60		program as shown, then operate E-7 position 1 OFF.																								
37 through 48		program as shown, then operate E-2 position 7 OFF.																								
25 through 36		program as shown, then operate E-2 position 8 OFF.																								

X = Last column to be printed.

18. Printer Paper Feedout		E-1								E-2							
		1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
a.	No Paper Feedout	●	—	—	—	—	—	—	—	—	—	—	—	—	—	○	—
b.	Paper Feedout on DSR or RM Loss — 16 Lines or One Form	○	—	—	—	—	—	—	—	—	—	—	—	—	—	○	—
c.	Paper Feedout on DSR or RM Loss or ETX — 16 Lines or One Form	○	—	—	—	—	—	—	—	—	—	—	—	—	—	●	—

19. Printer Errored Character Symbol		E-1								
		1	2	3	4	5	6	7	8	9
a.	Printed on Even Parity Error	—	—	●	○	—	—	—	—	—
b.	Printed on Odd Parity Error	—	—	○	●	—	—	—	—	—
c.	Not Printed on Parity Error	—	—	●	●	—	—	—	—	—

19. Character Set		E-2							
		1	2	3	4	5	6	7	8
d.	Printers With 96 Character Set	—	—	—	○	●	—	—	—
e.	Printers With 64 Character Set	—	—	—	●	○	—	—	—
f.	Printers With Extended ASCII Character Set	—	—	—	○	○	—	—	—
g.	Printers With Longest Character Set Having Less Than 64 Characters	—	—	—	○	○	—	—	—

21. Foldover on Up-Low Printer		E-2							
		1	2	3	4	5	6	7	8
a.	Lower Case and Upper Case Print	-	-	○	-	-	-	-	-
b.	Lower Case Prints as Upper Case	-	-	●	-	-	-	-	-

22. Foldover on Monocase Printer		E-2							
		1	2	3	4	5	6	7	8
a.	Lower Case Prints as Error Symbol	-	-	○	-	-	-	-	-
b.	Lower Case Prints as Upper Case	-	-	●	-	-	-	-	-

23. Extended ASCII on Printer (Extended ASCII)		E-1								
		1	2	3	4	5	6	7	8	9
a.	Prints Extended ASCII Characters (No Parity Check)	-	-	○	○	-	-	-	-	-
b.	Does Not Print Extended ASCII (See Option 19a, b, or c.)	-	-	-	(As in 19.)	-	-	-	-	-

48. Incomplete Form Suppresses Paper Alarm		E-2							
		1	2	3	4	5	6	7	8
a.	No (Paper-Out Not Gated With Form-Out)	-	●	-	-	-	-	-	-
b.	Yes (Paper-Out Gated With Form-Out)	-	○	-	-	-	-	-	-

54. Printing of Escape Sequences Suppressed		E-1								
		1	2	3	4	5	6	7	8	9
a.	Character After ESC Printed as Received	-	○	-	-	-	-	-	-	-
b.	Printing of Character After ESC Suppressed	-	●	-	-	-	-	-	-	-

55. Shift In/Shift Out Detection		E-1								
		1	2	3	4	5	6	7	8	9
a.	SI/SO Detection Not Used	-	-	-	-	-	-	○	-	-
b.	SI/SO Detection Enables Printing Additional Characters	-	-	-	-	-	-	●	-	-

56. Friction Feed/Tractor Feed Printer		E-2							
		1	2	3	4	5	6	7	8
a.	Friction Feed Printer — Motor Held On After Paper Alarm	○	-	-	-	-	-	-	-
b.	Tractor Feed Printer — Motor Turned Off After Paper Alarm	●	-	-	-	-	-	-	-

57. SSI/OEM Interface		E-7							
		1	2	3	4	5	6	7	8
a.	SSI	-	-	-	-	-	-	●	-
b.	OEM	-	-	-	-	-	-	○	-

58. Idle Line Motor Control		E-7							
		1	2	3	4	5	6	7	8
a.	Disabled — Motor Held On Indefinitely During Idle Line	-	-	-	-	-	-	-	○
b.	Enabled — Motor Turned Off After 40-Second Idle Line	-	-	-	-	-	-	-	●

§ Requires use of 410085 OEM card.

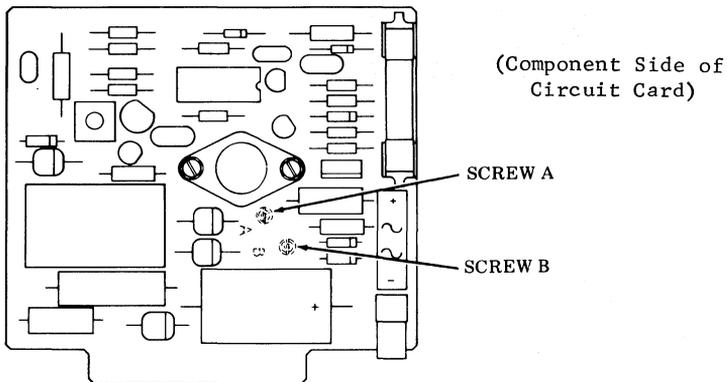


Fig. 17

5.20 410151 Circuit Card (Located in Printer Power Module)

61. Regulator Grounding		Screw A		Screw B	
		Component	Noncomponent	Component	Noncomponent
a.	SSI (Circuit and Frame Ground at PTR)	In	—	—	In
b.	SSI/OEM (Circuit and Frame Ground at PTR, +12 V)	In	—	In	—
c.	OEM (Circuit Ground External to PTR, +12 V)	—	In	In	—

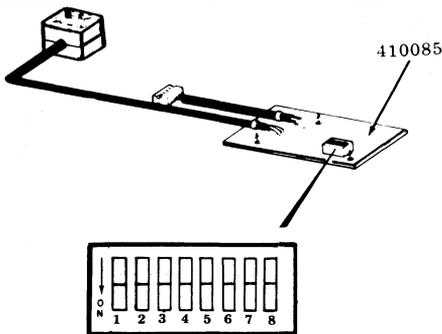


Fig. 18

5.21 410085 Circuit Card (OEM) (Required only if Option 57b on 410076 card is selected, see Note.)

59. Speed Selection.		SWC-3							
		1	2	3	4	5	6	7	8
a.	75 Baud	●	○	○	○	○	○	○	○
b.	150 Baud	○	●	○	○	○	○	○	○
c.	300 Baud	○	○	○	●	○	○	○	○
d.	600 Baud	○	○	●	○	○	○	○	○
e.	1200 Baud	○	○	○	○	○	○	●	○
f.	2400 Baud	○	○	○	○	○	●	○	○
g.	4800 Baud	○	○	○	○	○	○	●	○
h.	9600 Baud	○	○	○	○	○	○	○	●

Note: The 410085 circuit card is mounted on the 410076 printer logic circuit card in OEM application.

PRINTER OPTIONS RECORD

5.22 The Printer Options Record provides a means by which the options can be recorded for later servicing or maintenance purposes.

Check desired option.

PRINTER OPTIONS	
17. Printer Margin and Form Width	
a. First Printed Col. — Col. 1	* <input type="checkbox"/>
b2. First Printed Col. — Col. 2	<input type="checkbox"/>
b3. First Printed Col. — Col. 3	<input type="checkbox"/>
etc	
b13. First Printed Col. — Col. 13	<input type="checkbox"/>
c. Last Char. Printed — Col. 80	* <input type="checkbox"/>
d79. Last Char. Printed — Col. 79	<input type="checkbox"/>
d78. Last Char. Printed — Col. 78	<input type="checkbox"/>
d77. Last Char. Printed — Col. 77	<input type="checkbox"/>
etc	
d25. Last Char. Printed — Col. 25	<input type="checkbox"/>
e. Last Char. Printed — Col. 132	* <input type="checkbox"/>
f131. Last Char. Printed — Col. 131	<input type="checkbox"/>
f130. Last Char. Printed — Col. 130	<input type="checkbox"/>
f129. Last Char. Printed — Col. 129	<input type="checkbox"/>
etc	
f73. Last Char. Printed — Col. 73	<input type="checkbox"/>
18. Printer Paper Feed-Out	
a. No Paper Feed-Out	<input type="checkbox"/>
b. Paper FO 16 Lines on DSR Loss	<input type="checkbox"/>
c. Paper FO on DSR Loss or ETX	* <input type="checkbox"/>
19. Printer Errored Character Symbol	
a. Symbol on Even Parity Error	* <input type="checkbox"/>
b. Symbol on Odd Parity Error	<input type="checkbox"/>
c. No Symbol on Parity Error	<input type="checkbox"/>
d. 96 Character Set	<input type="checkbox"/>
e. 64 Character Set	<input type="checkbox"/>
f. Extended ASCII Character Set	<input type="checkbox"/>
g. Less Than 64 Char. Set	<input type="checkbox"/>
20. Line Feed	
a. Single	<input type="checkbox"/>
b. Double	<input type="checkbox"/>
21. Foldover on Up-Low Printer	
a. Lower Case and Upper Case Print.	* <input type="checkbox"/>
b. Lower Case Prints as Upper Case.	<input type="checkbox"/>
22. Foldover on Monocase Printer	
a. Lower Case Prints as Error Symbol.	<input type="checkbox"/>
b. Lower Case Prints as Upper Case.	* <input type="checkbox"/>
23. Extended ASCII on Printer	
a. Prints Extended ASCII Characters.	<input type="checkbox"/>
b. Does Not Print Extended ASCII Char.	* <input type="checkbox"/>
39. Forms (Tractor Feed Printers)	
a. On	<input type="checkbox"/>
b. Off	* <input type="checkbox"/>

PRINTER OPTIONS (Cont)	
48. Incomplete Form Suppresses Paper Alarm	
a. No (Paper-Out Not Gated W/Form-Out)	<input type="checkbox"/>
b. Yes (Paper-Out Gated W/Form-Out). *	<input type="checkbox"/>
54. Printing of Escape Sequence Suppressed	
a. Char. After ESC Printed as Received. *	<input type="checkbox"/>
b. Printing of Char. After ESC Suppressed.	<input type="checkbox"/>
55. Shift-In/Shift-Out (SI/SO) Detection	
a. SI/SO Detection Not Used.	* <input type="checkbox"/>
b. SI/SO Detection Enables Printing Add. Char.	<input type="checkbox"/>
56. Friction Feed/Tractor Feed Printer	
a. FF Ptr — Motor Held on After Paper Alarm.	* <input type="checkbox"/>
b. TF Ptr — Motor Turned Off After Paper Alarm.	<input type="checkbox"/>
57. SSI/OEM Interface	
a. SSI	* <input type="checkbox"/>
b. OEM	<input type="checkbox"/>
58. Idle Line Motor Control	
a. Disabled — Motor Held On Indefinitely During Idle Line.	* <input type="checkbox"/>
b. Enabled — Motor Turned Off After 40-Second Idle Time.	<input type="checkbox"/>
59. Speed Selection	
a. 75 Baud	<input type="checkbox"/>
b. 150 Baud	<input type="checkbox"/>
c. 300 Baud	<input type="checkbox"/>
d. 600 Baud	<input type="checkbox"/>
e. 1200 Baud	<input type="checkbox"/>
f. 2400 Baud	<input type="checkbox"/>
g. 4800 Baud	<input type="checkbox"/>
h. 9600 Baud	* <input type="checkbox"/>
60. Auxiliary Alarm	
a. Enable	<input type="checkbox"/>
b. Disable	* <input type="checkbox"/>
61. Regulator Grounding	
a. SSI	<input type="checkbox"/>
b. SSI/OEM	* <input type="checkbox"/>
c. OEM	<input type="checkbox"/>

## 6. INSTALL PRINTER INTO CABINET

## FRICTION FEED PRINTER

6.01 Loosen four immobilizing screws a minimum of four turns until base rides freely on the shock mounts (Fig. 19).

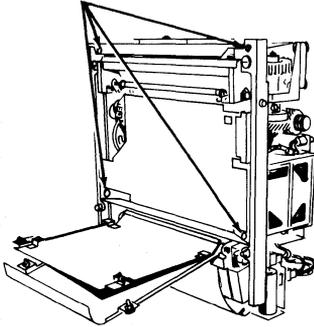
IMMOBILIZING  
SCREWS

Fig. 19—Friction Feed Immobilization

6.02 Slide printer into track. Make sure ac and SSI cables are not pinched. Make sure detents snap into place (Fig. 20).

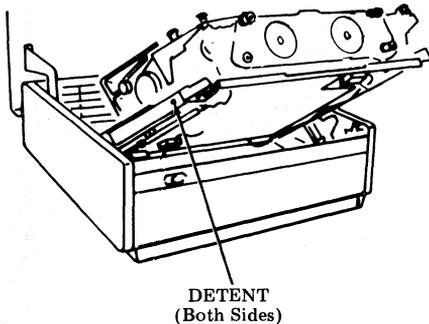


Fig. 20—Printer Tracks

6.03 Connect ac power cable and SSI cable (Fig. 21).

6.04 Depress latchlevers, and push printer down until it latches. Connect interlock cable at right rear corner of printer (Fig. 22).

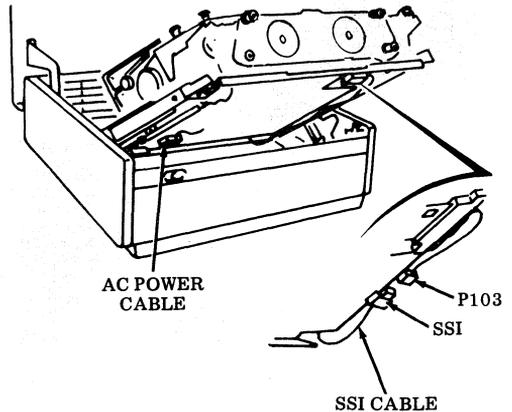


Fig. 21—Cable Connections

*Note:* Installation of printer under monitor and printer adjacent is similar. For printer under monitor arrangement the printer mounting tracks slide out by releasing latches on both sides of the cabinet and pulling forward. See Fig. 22 for location of latches.

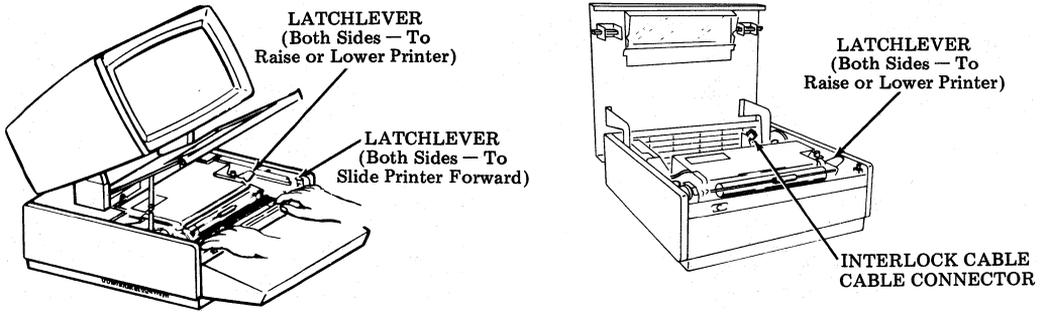


Fig. 22—Printer Under Monitor and Printer Adjacent

**TRACTOR FEED PRINTERS**

6.05 Loosen four immobilizing screws a minimum of four turns until base rides freely on the shock mounts (Fig. 23).

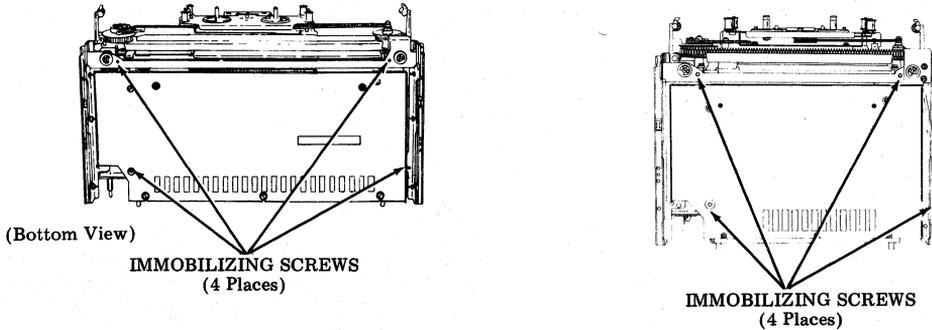


Fig. 23—Immobilizing Screws

6.06 Slide the printer in place. Make sure two latches on either side are fully engaged; also make sure three connectors at the rear of the printer are fully seated (Fig. 24).

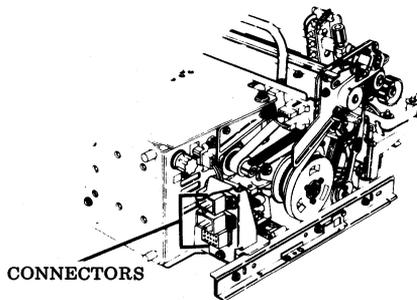


Fig. 24—Connectors on Tractor Feed Printer

## FORMS ACCESS PRINTER

- 6.07 Loosen four immobilizing screws far enough so that the base rides freely on the shock mounts (Fig. 25).

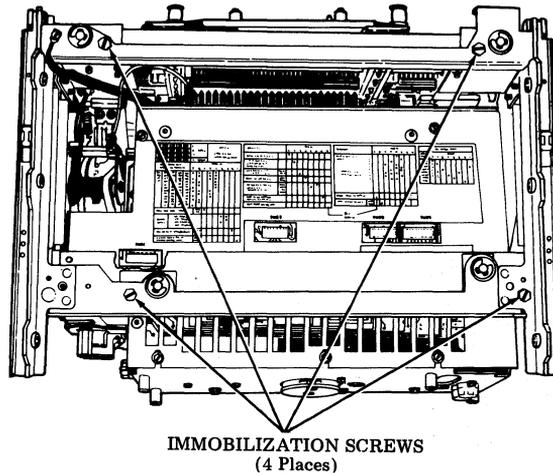


Fig. 25

- 6.08 The 40CAB302 forms access printer cabinet is provided with three security features that customers may desire for their installation: 1. Holes for securing cabinet to the floor, 2. an entry security lock knockout in the left front access door and 3. a secure location for the FORM switch.

- (a) Cabinet floor securing hole data (Fig. 26).

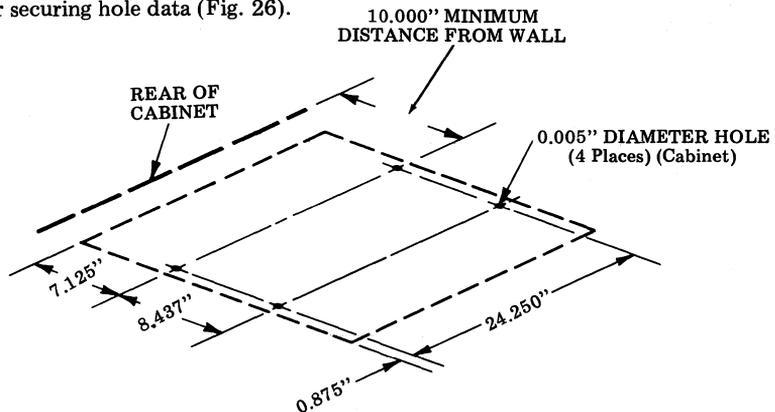


Fig. 26—Securing Hole Data

(b) To acquire entry security, remove the lock mounting hole knockout plug located in the handle well of the left front access door and install lock (Fig. 27).

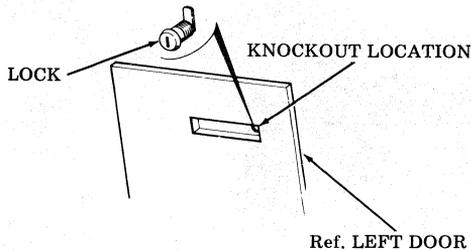
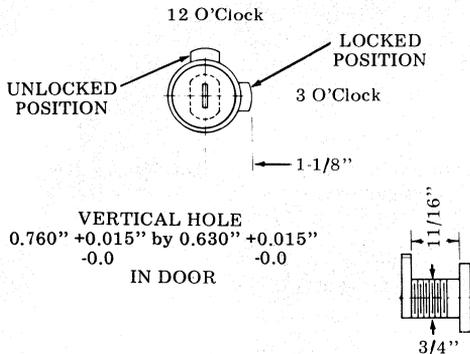


Fig. 27—Lock Knockout Plug Location

Note: Teletype Corporation does not supply the lock. The lock configuration is shown in Fig. 28.



Key Removable in Locked Position Only

Fig. 28—Lock Configuration

(c) The FORM switch securing procedure is as follows: Disassemble cover plate with filler plug from the bottom side of cabinet top cover by removing two screws, lockwashers

and flat washers (Fig. 29). Disconnect the two terminals of the FORM switch and carefully remove FORM switch from top cover forms chute (Fig. 30). Remove the shim and nut that secure the filler plug to the cover plate and reassemble the filler plug in the hole vacated by FORM switch on the top cover form chute. Insert FORM switch in cover plate and reconnect the two terminals. Reassemble the cover plate to the top cover and tighten mounting screws.

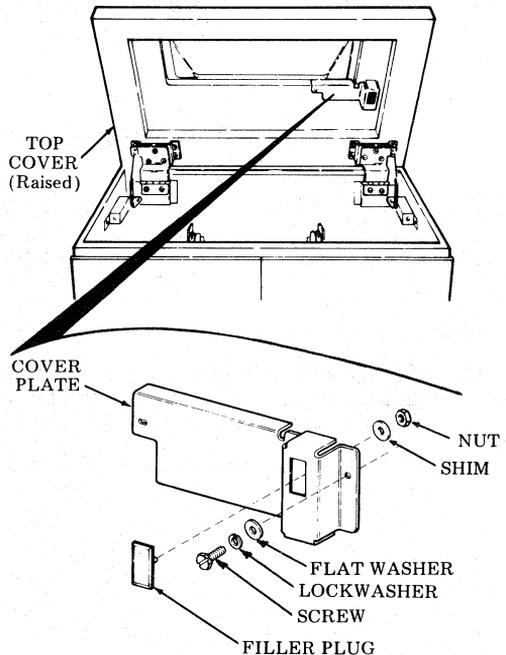


Fig. 29—Cover Plate with Filler Plug

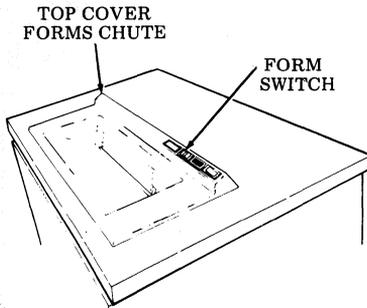


Fig. 30—FORM Switch

6.09 Lower printer into cabinet and onto the rail assemblies. Slide the printer rearward making sure two latches (one on each side) are fully engaged. Connect cabinet connector bracket (left rear) to the printer (Fig. 31).

*Note:* The late design cabinets have a solid shelf for the printer, and include printer mounting hardware and an instruction sheet.

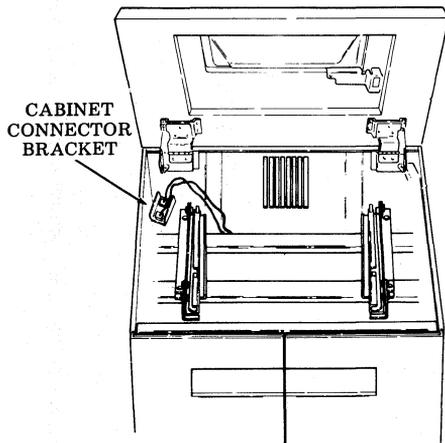
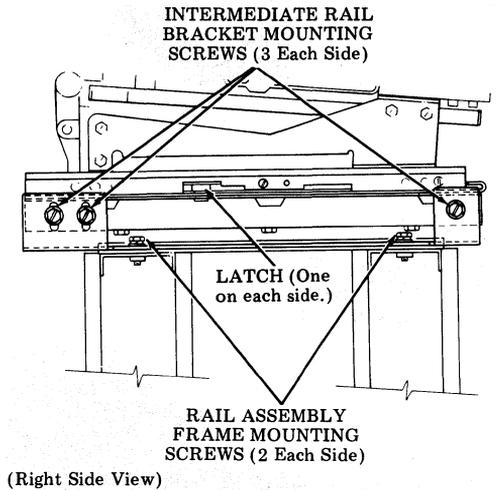


Fig. 31

6.10 Installation of a forms access printer requires the following positioning adjustments of the printer to the cabinet.

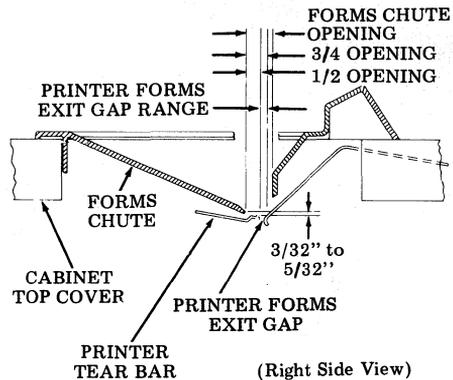
(a) With the printer positioned and latched in its rearmost location on the rail assembly frame, loosen the four rail assembly frame mounting screws friction tight (Fig. 32).



(Right Side View)

Fig. 32

(b) Move the printer rail assembly frame forward or rearward so that the printer forms exit gap is located half to three-fourths of the way back in the forms chute opening (as gauged by eye) (Fig. 33).



(Right Side View)

Fig. 33

(c) Tighten the four mounting screws.

(d) With a scale resting on the printer tear bar top surface and against the front edge of the forms chute opening, the tear bar should be located  $\frac{3}{32}$  inch to  $\frac{5}{32}$  inch below the form of the cabinet forms chute opening (Fig. 33).

(e) To adjust, loosen the six intermediate rail bracket mounting screws friction tight (Fig. 32). Place the blade of a screwdriver between the frame and the intermediate rail. Pry intermediate rail assembly up at alternate left and right front corners until requirement in 6.09 (d) is met. Tighten the forward most screws.

(f) After making adjustment, tighten remaining screws.

## 7. INSTALL TYPE CARRIER

### TYPE CARRIER PALLET ALIGNMENT

7.01 Prior to installation, align all type carrier pallets as follows, using 402878 gauge:

(a) Position the stem end of all pallets against the rear surface of the carrier (from Position No. 1 to Position No. 2) (Fig. 34).

Position No. 1 

Position No. 2 

Fig. 34

(b) Place type carrier into proper slot on the 402878 gauge (0.125 inch slot for 80-column printer and 0.070 inch slot for 132-column printer). Seat all pallets into bottom of channel (Fig. 35).

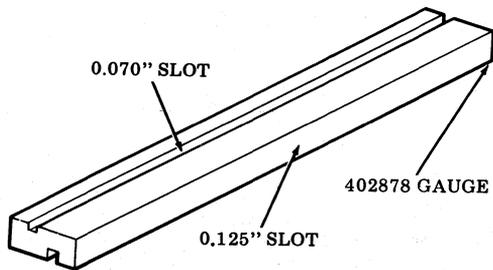


Fig. 35

## FRICITION FEED PRINTER

7.02 Install type carrier as follows:

(a) Release the thumb lever on the left ribbon guide bracket allowing the guide to spring to left (Fig. 36).

(b) Loosen the thumbscrew on the right ribbon guide bracket and swing the guide to the right (Fig. 36).

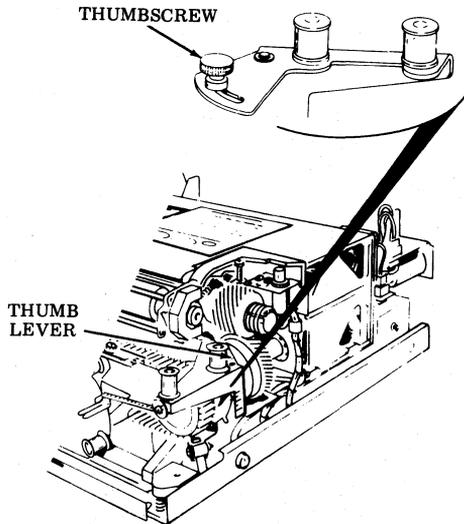


Fig. 36—Thumb Lever and Thumbscrew

(c) On late design units (carrier top guide secured to backup bar with three thumbscrews), remove the carrier top guide (Fig. 38).

(d) Start carrier at left pulley. Lift arm at left pulley.

(e) Position carrier over right pulley (Fig. 39).

(f) On early design units (carrier top guide not secured with three thumbscrews), make sure all pallet stems at the top of the belt are under the top guide.

(g) Rotate carrier one revolution by turning impeller gear clockwise.

- (h) Align all pallets against left pulley flange (Fig. 40).

*Warning: Damage to the type carrier or printer will result if any protruding type pallet is left unchecked (Fig. 40).*

- (i) On late design units, reinstall carrier top guide. With the three thumbscrews loosened, apply slight pressure to the top guide, down and toward the front of the unit. Hold in this position while tightening thumbscrews. Run approximately one page of internal test or 30 seconds of carrier idle. Repeat the top guide positioning procedure. For correct carrier tracking, it is essential that the top guide be positioned against the backup bar.

## TRACTOR FEED PRINTER — 80- AND 132-COLUMN

### 7.03 Install type carrier as follows:

- (a) Release thumb levers on left and right ribbon guide brackets allowing guides to spring open (Fig. 37).

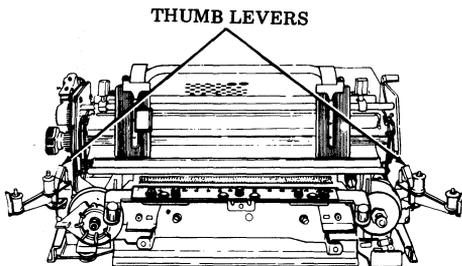


Fig. 37—Ribbon Guides Thumb Levers

- (b) Remove three thumbscrews and lockwashers securing carrier top guide and remove guide (guide not present on 132-column) (Fig. 38).

- (c) Install type carrier starting at left pulley. Lift finger lever on left pulley and position carrier over right pulley (Fig. 39).

- (d) Rotate type carrier one revolution by turning impeller gear by hand clockwise. At the same time align any protruding type pallets against the left pulley flange (Fig. 40).

*Warning: Damage to the type carrier or printer will result if any protruding type pallet is left unchecked (Fig. 40).*

- (e) Reinstall carrier top guide on 80-column printer per instructions on the top guide. Run approximately one page of internal test or 30 seconds of carrier idle. Repeat the top guide positioning procedure. For correct carrier tracking, it is essential that the top guide be positioned against the backup bar.

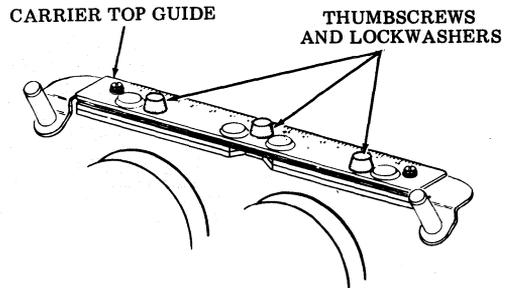


Fig. 38—Top Guide

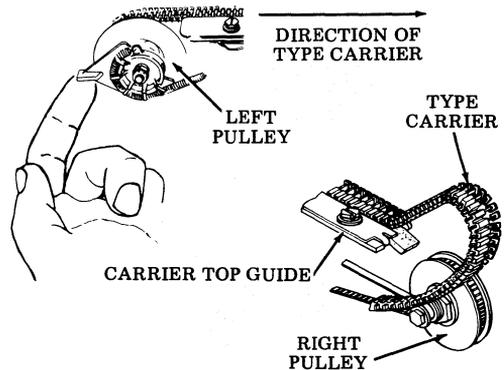


Fig. 39—Type Carrier Installation

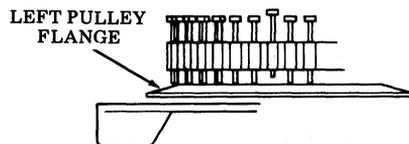


Fig. 40—Type Carrier Alignment

FORMS ACCESS TRACTOR FEED PRINTER — 80-COLUMN

7.04 Install type carrier as follows:

- (a) Depress thumb lever on right ribbon guide bracket allowing the guide to spring open (Fig. 41).
- (b) Remove the tear bar assembly by removing the two securing screws, lockwashers and flat washers (Fig. 42).

*Danger: Exercise care in handling tear bar to prevent injury from the tear edge. Careless handling of the tear bar may produce a burr on the tearing edge which may impair feeding of paper forms.*

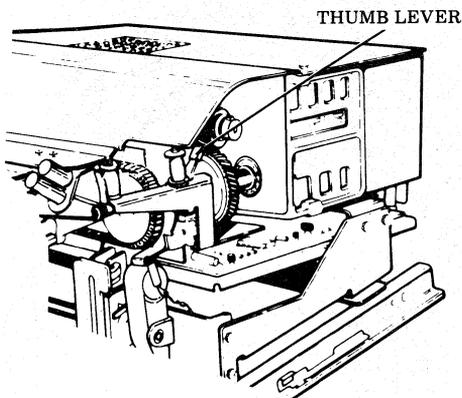


Fig. 41—Thumb Lever

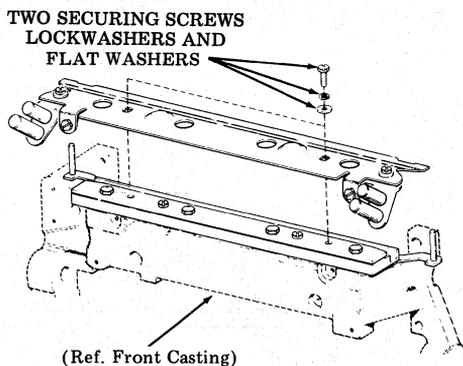


Fig. 42—Tear Bar Assembly

- (c) Install type carrier starting at left pulley. Lift finger lever on left pulley and position carrier over right pulley (Fig. 43).
- (d) Reinstall the tear bar assembly (Fig. 42) and tighten the two securing screws while holding the tear bar assembly toward the rear of the unit.
- (e) Rotate type carrier one revolution by turning impeller gear by hand clockwise. At the same time, align any protruding type pallets against the left pulley flange (Fig. 44).

*Caution: Damage to type carrier or printer will result if any protruding type pallet is left unchecked.*

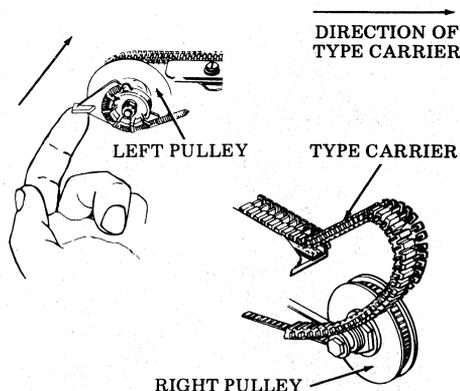


Fig. 43—Type Carrier Installation

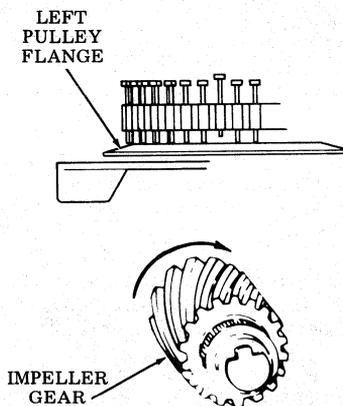


Fig. 44—Type Carrier Alignment

## 8. INSTALL RIBBON

### FRICION, TRACTOR FEED AND FORMS ACCESS PRINTERS

8.01 Rotate spindles by hand to determine which one turns freely. Place full spool on free-turning spindle so that ribbon feeds off bottom of spool.

8.02 Hold empty spool (with ribbon attached) in one hand and thread the ribbon as shown in Fig. 45, 46, 47 and 48.

*Note 1:* On tractor feed printer the ribbon must pass between the clear plastic strip and the type carrier.

*Note 2:* Two wire guides are present on 80-column tractor only — make sure ribbon does not become tangled in the guides.

*Note 3:* On 80-column forms access printer, the ribbon must pass between the plastic shield and the steel tear edge.

*Note 4:* On 80-column friction feed printer equipped with acoustical noise-reduction parts, ribbon must be located between the mask and type pallets.

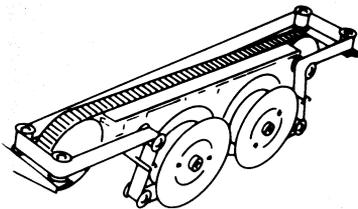


Fig. 45—Friction Feed — 80-Column

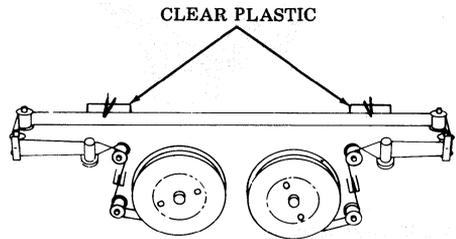


Fig. 46—Tractor Feed — 80-Column

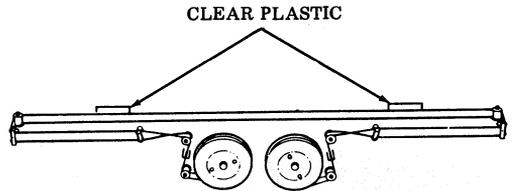


Fig. 47—Tractor Feed — 132-Column

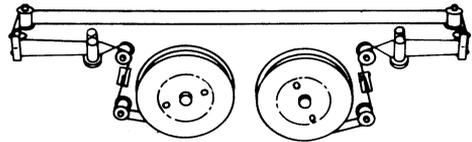


Fig. 48—Forms Access — 80-Column

8.03 Wind sufficient ribbon on empty spool so that second eyelet is wound on spool. Place empty spool on the other spindle with the ribbon feeding into the bottom of the spool.

8.04 Rotate full spool to take up all slack.

8.05 Ribbons are available from Teletype Corporation, 5555 Touhy Avenue, Skokie, Illinois 60077 (Phone 312-982-2000). When ordering, specify part number 402444.

## 9. INSTALL PAPER

## FRICTION FEED PRINTER

- 9.01 Pull pressure roller release lever up and to the front (Fig. 49).
- 9.02 Insert spindle in new roll; crease end of paper as shown and install paper roll into printer enclosure (Fig. 50).

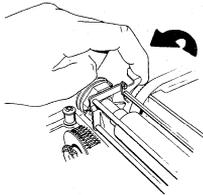


Fig. 49—Pressure Roller Release Lever

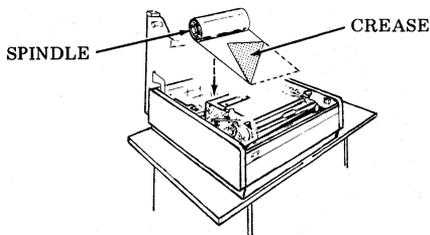


Fig. 50—Paper Forming Prior to Installation

- 9.03 Back up roll until point of paper drops behind lip of paper access chute (Fig. 51).

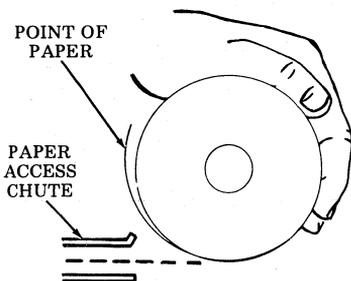


Fig. 51—Feeding Paper in Chute

- 9.04 Rotate paper roll as shown to feed paper through printer. It will be necessary to push and pull paper roll slightly. Use both hands on paper roll for even pressure on paper (Fig. 52).

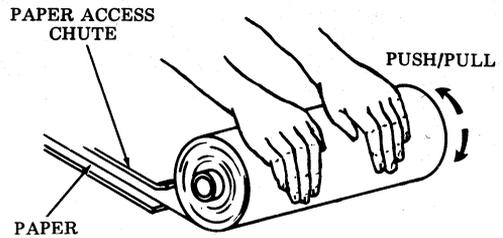


Fig. 52—Rotating Paper Roll

*Note:* If printer is not equipped with acoustical noise-reduction parts, proceed as follows:

- 9.05 Rotate paper until leading edge appears under pressure roller shaft. Be sure paper is not between type pallets and ribbon (Fig. 53).
- 9.06 Pull through approximately 12 inches of paper and align edge of paper with edge of roll. Return pressure roller release lever to engaged position, insert paper through window opening and close cover.

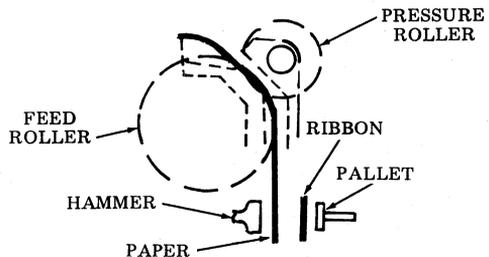


Fig. 53—Friction Feed Printer Without Noise-Reduction Parts

*Note:* If printer is equipped with acoustical noise-reduction parts, proceed as follows:

- 9.07 With printer raised and paper access chute opened, feed paper up by hand behind the mask and between the feed roller and pressure roller, making sure point of paper does not enter opening mask (Fig. 54). (The mask is a plastic piece mounted between the ribbon and the feed roller. An opening in the mask allows for the ribbon to contact the paper during printing.)
- 9.08 Grasp end of paper and pull through (approximately 12 inches). Close the paper access chute and lower the printer. Align edge of paper with edge of roll and return pressure roller release lever to engaged position. Feed the end of the paper through the opening in the cover and close the cover while keeping the paper taut.

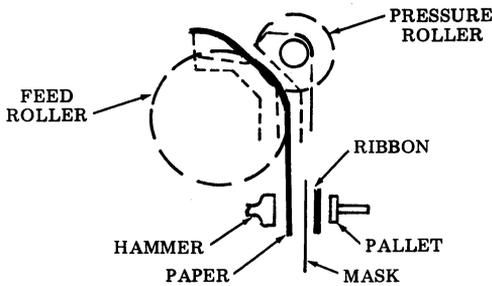


Fig. 54—Friction Feed Printer Equipped With Noise-Reduction Parts

TRACTOR FEED PRINTER — 80- AND 132-COLUMN

9.09 Install paper forms:

- (a) Release paper guides and open tractor covers (Fig. 55).

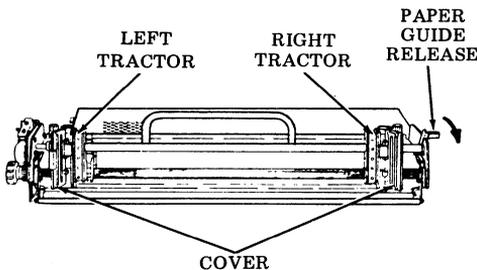


Fig. 55—Guides and Tractors

- (b) Insert sprocket paper in slot under the table in front of the set.

*Note:* If multiple forms separate, fold one form down and insert paper.

- (c) Feed paper up through printer, guide paper in back of ribbon and between upper paper guides (Fig. 56).
- (d) Pull paper up and align holes on the paper with the pins on the left tractor. Close the left tractor lid.

*Note:* If printer is equipped with the paper jam alarm refer to 9.10.

- (e) Set the left tractor for the left margin (Fig. 57). Note that the left tractor can be placed in position one through seven.

- (1) Loosen the left tractor release knob and slide the tractor to the desired left margin position using the scale on the printer as reference.

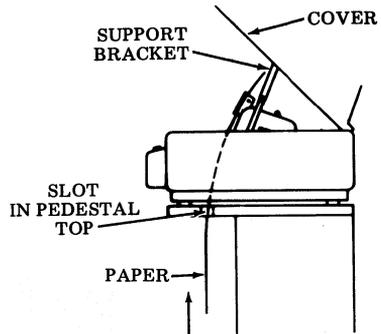


Fig. 56—Paper Routing

- (2) Tighten the left tractor release knob.
- (3) Close the tractor cover.
- (f) Position the right tractor to accept the form width:
  - (1) Loosen the right tractor release knob.
  - (2) Align tractor pins with holes in paper.
  - (3) Close tractor cover.

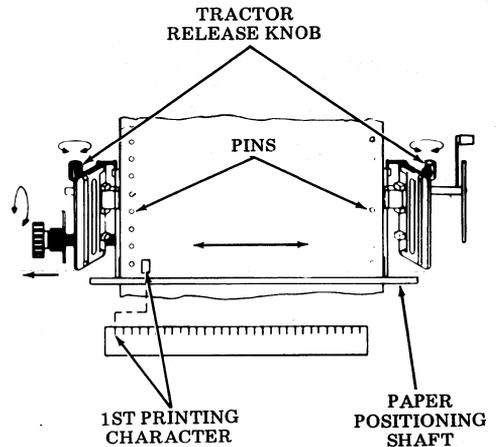


Fig. 57—Left Tractor Positioning

(g) The 80-column tractor feed printer is factory adjusted with a standard original plus five copies. The 132-column tractor feed printer is factory adjusted with a standard original plus three copies. This adjustment may suffice for most installations, including installations requiring single copy. Examine copy for print quality (ink smudge). If necessary, refine the following Paper Positioner adjustment using the paper required in the particular installation.

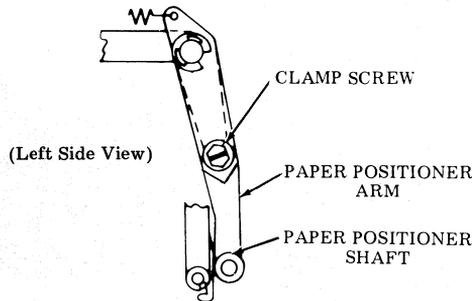
**PAPER POSITION (Under Power)**  
 (80- and 132-Column Tractor Feed)

**Requirement (A)**

The paper should be positioned as close to ribbon as possible without causing printed copy to become illegible due to ribbon smudging after a one minute printer idle period.

**Requirement (B)**

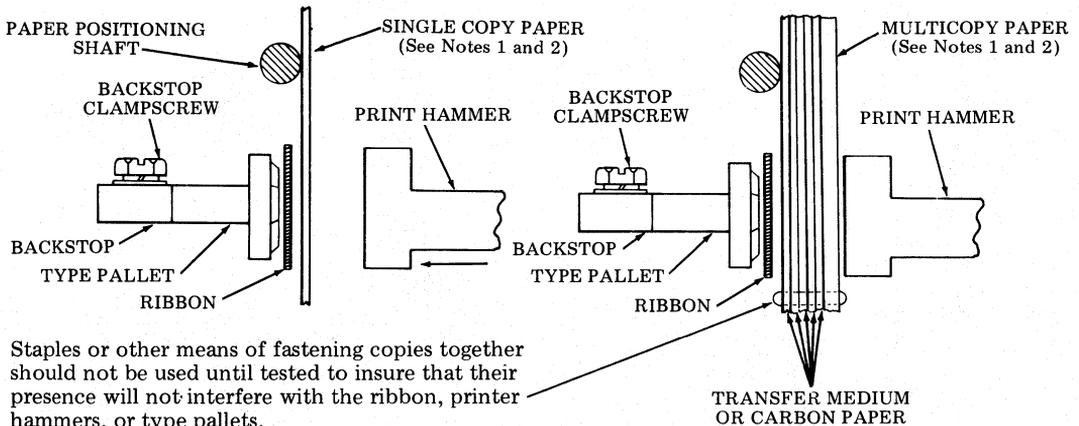
There should be no smudge when printing a text message (not the font identification symbol).



**Note 1:** These requirements do not apply when printing within two lines of a fold of fanfold paper.

**To Adjust**

Loosen clamp screws on left and right paper positioner arms and adjust arms to just eliminate marking on either side of paper. Paper should remain as close as possible to ribbon without marking to minimize impact noise and vertical misalignment. Tighten clamp screws.



Staples or other means of fastening copies together should not be used until tested to insure that their presence will not interfere with the ribbon, printer hammers, or type pallets.

**Note 2:** The factory final adjustment is made with a standard original plus three copies paper on the 132-column printer and with a standard original plus five copies paper on 80-column printer. Upon installation a refinement of this adjustment may be necessary dictated by the actual paper weight and number of copies being used.

## 9.10 Set or reset paper jam alarm mechanism:

- (a) Rotate the knurled wheel (early design) or "O" ring (late design) toward the rear (pushing on the top of wheel or "O" ring) until it stops.
- (b) Push on blue painted tab of the actuator (early design) or blue plastic actuator (late design) until it detents into reset condition.

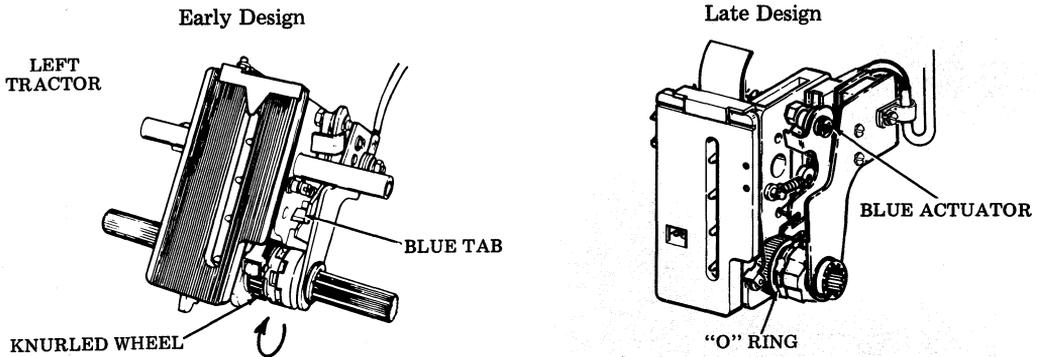


Fig. 58—Paper Jam Alarm Mechanism:

- (c) The (early design) paper jam alarm is adjusted at the factory with single sheets of 20 pound paper. This adjustment may suffice for most installations, including installations requiring multicopy paper. If necessary, refine the PAPER JAM ALARM adjustment using the paper required in the particular installation.
- (d) The (late design) paper jam alarm has no adjustments.

PAPER JAM ALARM (For 80- or 132-column tractor feed printers equipped with paper jam alarm mechanism early design only.)

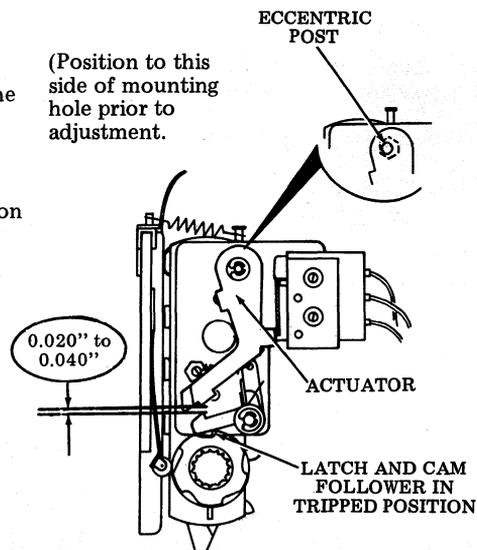
## Requirement

There should be

Min 0.020 inch — Max 0.040 inch  
between the top of the latch and bottom of the  
actuator when the cam follower is in the trip  
position and the actuator is held in.

## To Adjust

Loosen the eccentric post mounting nut friction  
tight. Rotate eccentric to meet requirement.  
Tighten mounting nut.



## FORMS ACCESS PRINTER — 80-COLUMN

## 9.11 Install paper forms:

- (a) Open left and right tractor lids.
- (b) If multiple forms separate, fold one form down and insert paper.
- (c) Insert paper up through the paper guide chute, behind the ribbon shield and out the slot between the tear bar and top cover before engaging feed holes (Fig. 59).

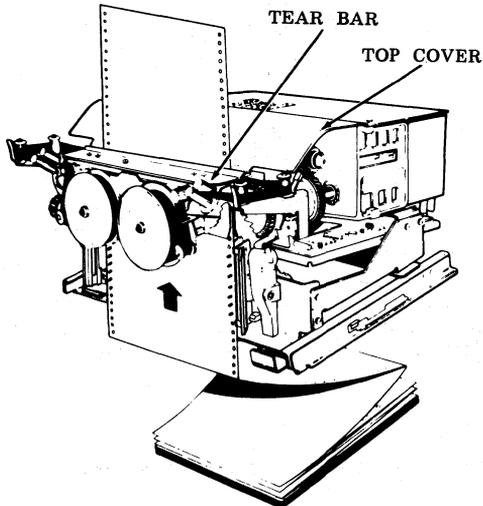


Fig. 59—Paper Routing

- (d) Unlock and set the right tractor for paper width as follows:
  - (1) Lift clamp on the right tractor assembly.
  - (2) Position the right tractor to align tractor pins in paper feed holes.
  - (3) Close right tractor lid and close clamp lever (Fig. 60).

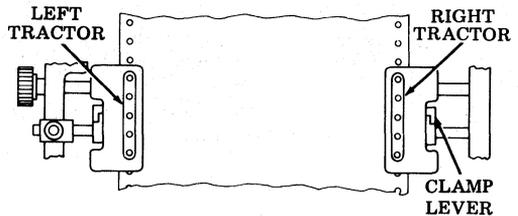


Fig. 60—Right Tractor Positioning

- (e) To align forms to desired first column printing, loosen blue thumbscrew clamp (Fig. 61) and position forms drive assembly to align first position on paper with first printing character position. Tighten thumbscrew clamp.

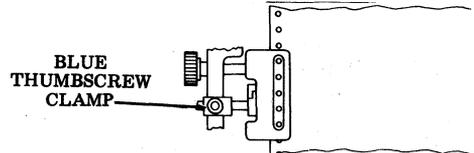


Fig. 61—Thumbscrew Clamp

- (f) Pull out paper advance knob (blue) and turn to position form tearline perforation directly behind the edge of the printer tear bar.

*Note:* If a new form length has been installed, perform one form feed and repeat 9.11 (f).

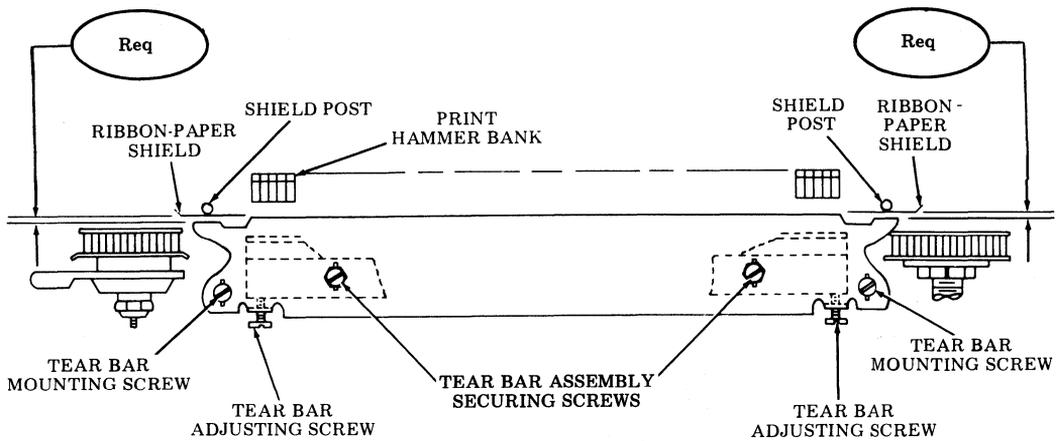
- (g) The forms access printer is factory adjusted to accept 0.005 to 0.010 inch form stock. If other form stock thickness is being used in the particular installation, paper jams may be experienced or print quality may not be satisfactory due to ink smudge. If necessary check and refine the following adjustments:

40P253 Printer

TEAR BAR (Preliminary)

TOP COVER (Preliminary)

TEAR BAR AND TOP COVER (Final)



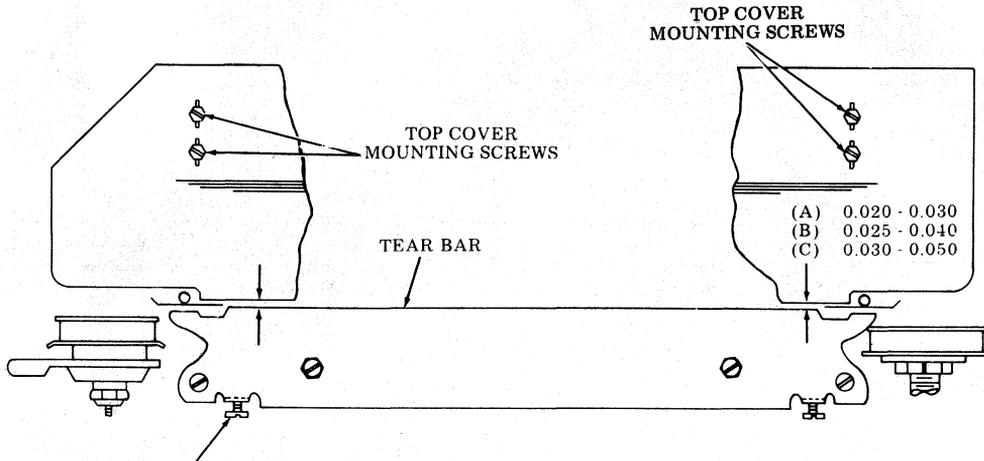
**TEAR BAR (Preliminary)**  
**(40P253 Forms Access Printer)**

**Requirement**

There should be a gap of  
 Min 0.060 inch – Max 0.080 inch  
 between ribbon paper shield and tear bar.

**To Adjust**

The tear bar mounting screws (2) and tear bar assembly securing screws (2) should be friction tight and the tear bar adjusting screws turned counterclockwise to make the measured gap less than the requirement. Turn tear bar adjusting screws clockwise until the minimum gauge just passes freely. Tighten four mounting screws.



*Note:* Tear bar adjusting screws should not be disturbed. See **TEAR BAR AND TOP COVER (Final) adjustment.**

**TOP COVER (Preliminary)**  
(40P253 Forms Access Printer)

**Requirement**

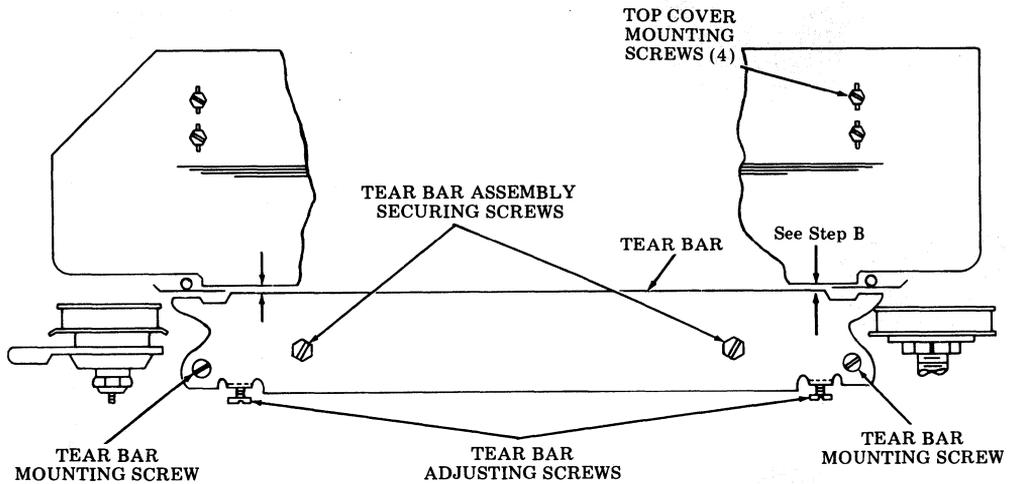
The gap requirement between the top cover and tear bar is determined by the thickness of the forms stock used, as follows:

- (A) If form thickness is 0.005 inch to 0.010 inch, gap should be  
Min 0.020 inch — Max 0.030 inch
- (B) If form thickness is 0.010 to 0.018 inch, gap should be  
Min 0.025 inch — Max 0.040 inch
- (C) If form thickness is 0.018 inch to 0.025 inch, gap should be  
Min 0.030 inch — Max 0.050 inch

**To Adjust**

With the top cover mounting screws (4) friction tight, position the top cover to meet required gap (per form thickness used) when measured near ends of tear bar. Tighten the top cover mounting screws and recheck gap.

*Note:* Printer is factory adjusted to meet Requirement (A).



**TEAR BAR AND TOP COVER (Final)**  
 (40P253 Forms Access Printer)

**Requirement**

The printed character in a line of copy should not become illegible due to ink being deposited on the paper when printer is running idle for one minute.

**To Adjust**

**Step (A)** With printer power off, loosen tear bar mounting screws (2) and tear bar assembly securing screws (2). Reduce the gap between tear bar and top cover by turning adjusting screws counterclockwise in increments of 1/6 turn (one flat of hex), but not more than three, while applying finger pressure on tear bar to reduce gap. Tighten the tear bar assembly securing screws (2) after each increment and recheck requirement. When requirement is met, tighten tear bar mounting screws (2).

**Step (B)** Reposition the top cover to provide applicable top cover to tear bar gap, dependent on thickness of forms stock used. See TOP COVER (Preliminary) requirement. Tighten the top cover mounting screws (4) and recheck gap.

**Note:** When refinement of these adjustments is required, some increase in audible noise and a lessening of print density may occur.

10. FORM-OUT BELT SELECTION — 80- AND 132-COLUMN TRACTOR FEED PRINTER AND 80-COLUMN FORMS ACCESS PRINTER

10.01 The blue 402572 form-out belt is supplied with the printer. Refer to the following table for selecting a different belt that may be requested by the customer.

Form Selector Setting				Color of Belt	Part No.
4	3	2	1		
Length of Form					
†3-1/3	2-1/2	5	10	Amber	402571
†3-2/3	**2-3/4	5-1/2	11	Dk Blue	402572
4	3	6	12	Yellow	402573
†4-1/3	**3-1/4	6-1/2	13	Brown	402574
†4-2/3	3-1/2	7	14	Red	402575
5	**3-3/4	7-1/2	15	Pink	402576
†5-1/3	4	8	16	Lt Green	402577
†5-2/3	**4-1/4	8-1/2	17	Green	402578
6	4-1/2	9	18	Lt Blue	402579
†7-1/3	5-1/2	11	22	White	402580

† For six lines per inch  
 \*\*For eight lines per inch

(a) If a form-out belt different from the one on the printer is required, change belt as follows:

- (1) Loosen thumbscrew and move rear (idler) wheel forward (Fig. 62).
- (2) Hold form selector lever depressed and slide off old belt.
- (3) Place new belt on wheels with arrow on belt pointed inward.
- (4) Position rear wheel back to remove slack in belt keeping bracket to which wheel is mounted at right angles to the slot.
- (5) Tighten thumbscrew and place form selector pointer at proper scale setting for proper form length.
- (6) Depress the FORM ADVANCE button and position the form at the first printing line.

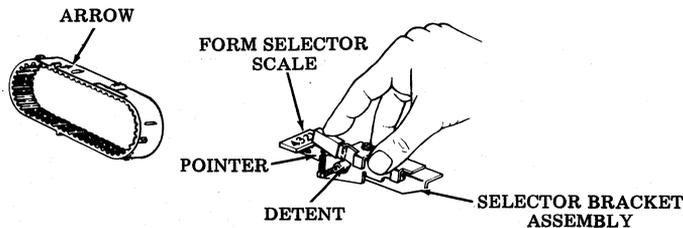
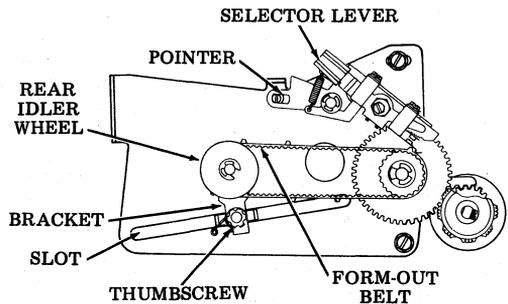
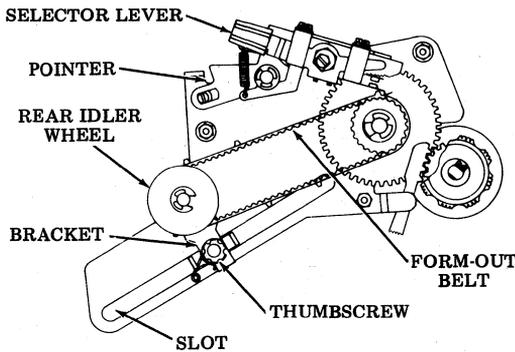


Fig. 62—Form-Out Mechanism

(b) On 80- or 132-column tractor feed printer, pull out paper advance knob (blue) and turn to position form for first line of printing as follows (Fig. 63):

- (1) Position the paper so first line to be printed is just above the paper positioning shaft (Fig. 63).
- (2) Position the top of the alignment clip to any reference mark on the paper (or make a pencil mark on the paper in line with the top of the alignment clip).
- (3) Using the blue paper adjusting knob move the paper down so that the reference mark (or pencil mark) on the paper is in line with the bottom of the alignment clip (Fig. 63).
- (4) Return paper guide to operating condition.

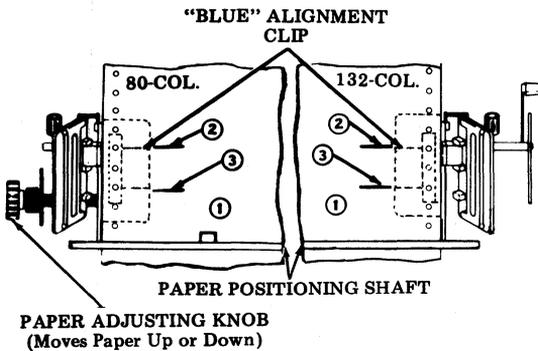


Fig. 63—Paper Positioning for First Printing Line (80- and 132-Column)

(c) On 80-column forms access printer, pull out paper advance knob (blue) and turn to position form for first line of printing as follows (Fig. 64):

- (1) Align the start of form (tear line perforation) directly behind the tear edge of the tear bar (Fig. 64).
- (2) The distance from the tear line to the first printing centerline is 0.250 inch (Fig. 65).
- (3) Printing in other lines is accomplished by inserting New Lines in the format.

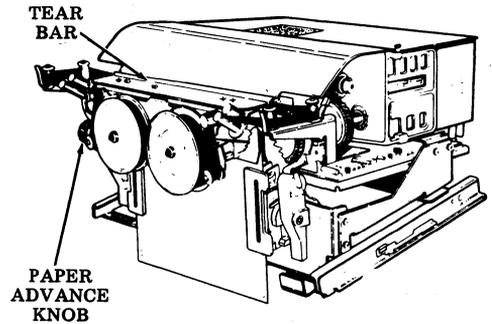


Fig. 64—Paper Positioning for First Printing Line (80-Column)

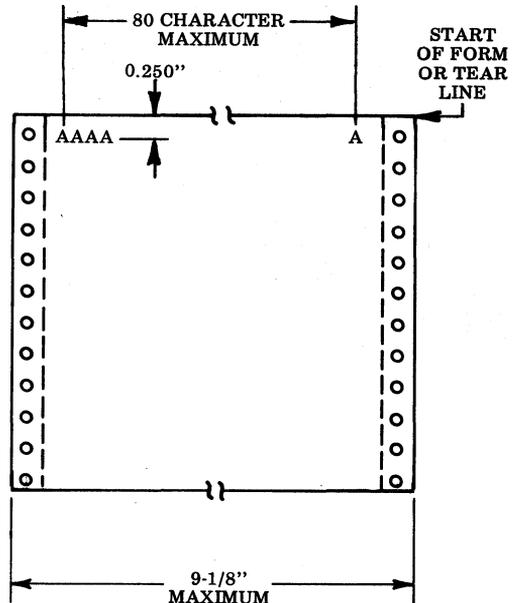


Fig. 65

## 11. PRINTER TESTING

11.01 When installation of the printer is completed the printer should be tested. Refer to Section 582-210-500, Printer Testing and Troubleshooting; if printer is part of a station, refer to the appropriate station BSP section for testing procedures.