

INSTRUCTIONS FOR INSTALLING AND OPTIONING THE  
 410076 80-COLUMN PRINTER LOGIC CIRCUIT CARD

1. GENERAL

1.01 This specification covers the new 410076 printer logic circuit card, which replaces the 410640 circuit card.

1.02 This circuit card can be used with Model 40 friction feed 80-column printers coded 40P101 and 40P102 series and Model 40 tractor feed 80-column printers coded 40P150, 40P151, 40P152 and 40P153 series.

1.03 The 410076 circuit card assembly offers a number of new operational options. These options are all switch-selectable, with three switch

packs mounted on the card itself. All options available on the 410640 circuit card assembly are also available on the 410076 circuit card assembly.

1.04 Listed below are the new additional features:

- (a) LEFT-HAND MARGIN adjustment.
- (b) The additional RIGHT-HAND MARGIN adjustment.
- (c) 40-second idle line motor turn off.
- (d) Shift in/shift out capabilities.
- (e) Escape sequence print suppression.

2. ACTIVATING OPTIONS

OPTION NO.	OPTION CONDITIONS	OPTION DEFINITION	TOGGLE, SLIDE, OR ROCKER SWITCH NUMBERS								LOCATION OF SWITCH ON CIRCUIT CARD
19.			D10								
a.			1	2	3	4	5	6	7	8	
b.			—	—	—	—	—	○	●	—	
c.			—	—	—	—	—	●	○	—	

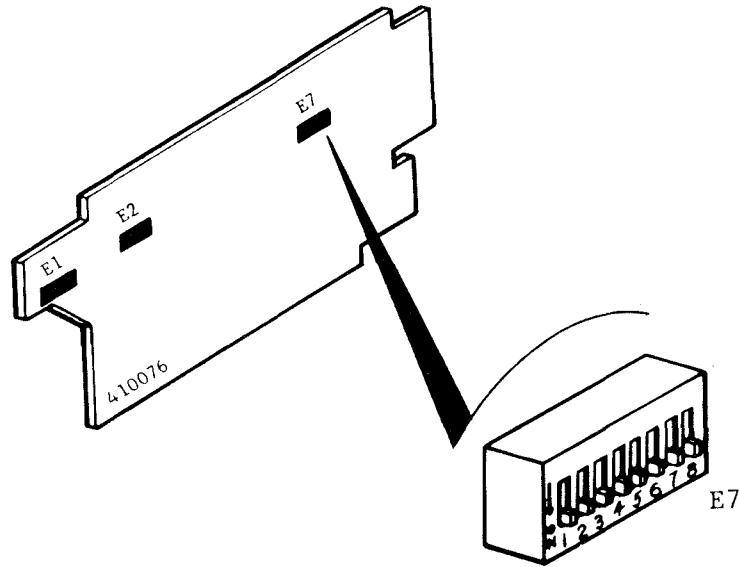
Legend:

- Indicates switch in ON position.
- Indicates switch in OFF position.
- Position of switch does not affect option.
- \* Factory Programmed

RTTY ELECTRONICS  
 TELETYPE=Sales-Service-Parts  
 PO Box 20101 El Sobrante, Ca.  
 94820. (510)222-3102  
 mr\_rtty@pacbell.net

SPECIFICATION 50897S

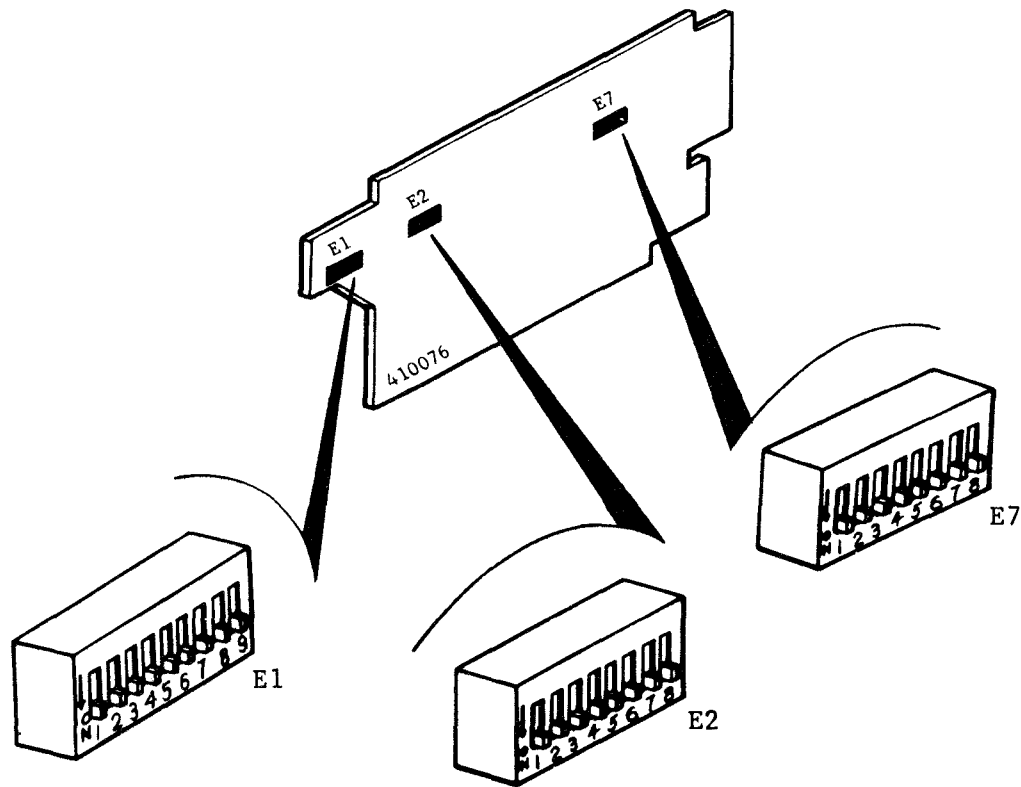
410076 Printer Logic Circuit Card Assembly



17. Printer Left Margin and Form Width		E7								
		1	2	3	4	5	6	7	8	
a.	First Printed Column -- Column 1	—	—	●	●	●	●	—	—	*
b2.	First Printed Column -- Column 2	—	—	●	●	○	●	—	—	
b3.	First Printed Column -- Column 3	—	—	●	●	○	○	—	—	
b4.	First Printed Column -- Column 4	—	—	●	○	○	○	—	—	
b5.	First Printed Column -- Column 5	—	—	○	○	●	○	—	—	
b6.	First Printed Column -- Column 6	—	—	○	○	○	●	—	—	
b7.	First Printed Column -- Column 7	—	—	○	●	○	○	—	—	
b8.	First Printed Column -- Column 8	—	—	●	○	●	○	—	—	
b9.	First Printed Column -- Column 9	—	—	○	○	●	●	—	—	
b10.	First Printed Column -- Column 10	—	—	○	●	○	●	—	—	
b11.	First Printed Column -- Column 11	—	—	●	●	●	○	—	—	
b12.	First Printed Column -- Column 12	—	—	●	○	○	●	—	—	
b13.	First Printed Column -- Column 13	—	—	○	●	●	○	—	—	

(See Legend for ●, ○, —, and \* on Page 1.)

410076 Printer Logic Circuit Card Assembly (Cont)



17. Printer Right Margin and Form Width		E1									E2								E7										
	Last Char Printed Column Number	1	2	3	4	5	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	-	-	-	-	○	○	-	○	●	-	-	-	-	-	-	-	●	●	●	●	-	-	-	-	-	-	-	-

To obtain counts:

73 through 80 program as shown.

61 through 72 program as shown, then operate E7 position 2 to OFF.

49 through 60 program as shown, then operate E7 position 1 to OFF.

37 through 48 program as shown, then operate E2 position 7 to OFF.

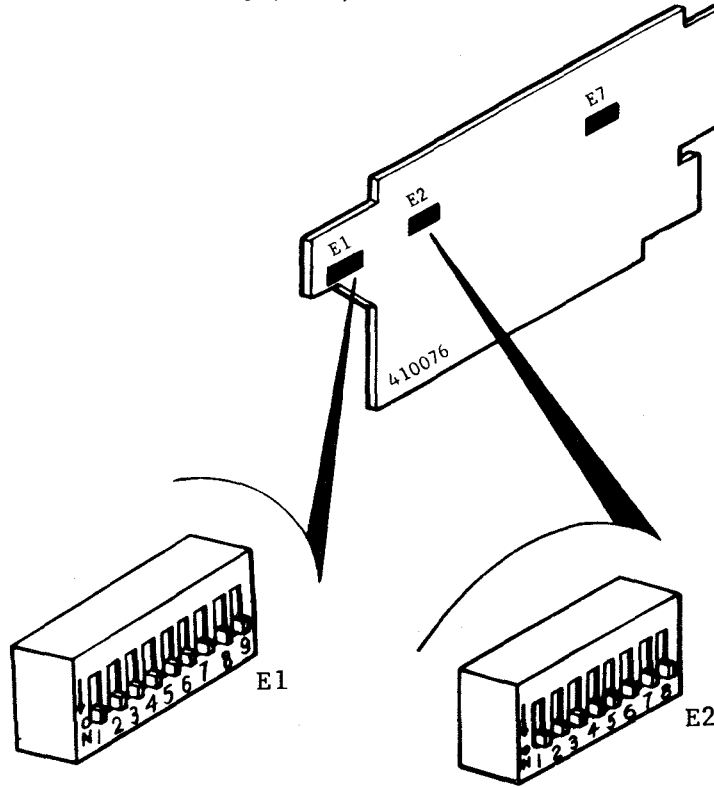
25 through 36 program as shown, then operate E2 position 8 to OFF.

(X) Indicates desired column number.

(See Legend for ●, ○, -, and \* on Page 1.)

SPECIFICATION 50897S

410076 Printer Logic Circuit Card Assembly (Cont)



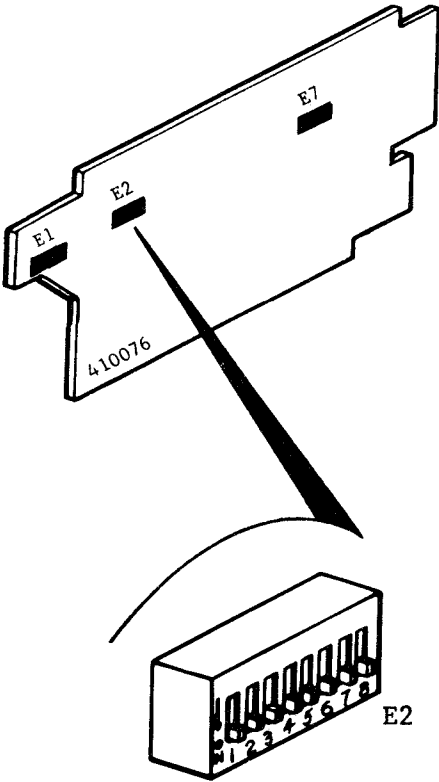
18. Printer Paper Feed Out	E1									E2								
	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	
a. No Paper Feed Out	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	○	-	-
b. Paper Feed Out on DSR or RM Loss -- 16 Lines or One Form	○	-	-	-	-	-	-	-	-	-	-	-	-	-	-	○	-	-
c. Paper Feed Out on DSR or RM Loss or ETX -- 16 Lines or One Form	○	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-

19. Printer Errored Character Symbol	E1								
	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	E2							
	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	-	-	-	○	○	-	-	-

(See Legend for ●, ○, -, and \* on Page 1.)

410076 Printer Logic Circuit Card Assembly (Cont)



21. Foldover on Up-Low Printer		E2							
		1	2	3	4	5	6	7	8
a.	Lower Case and Upper Case Print	-	-	○	-	-	-	-	-
b.	Lower Case Prints as Upper Case	-	-	●	-	-	-	-	-

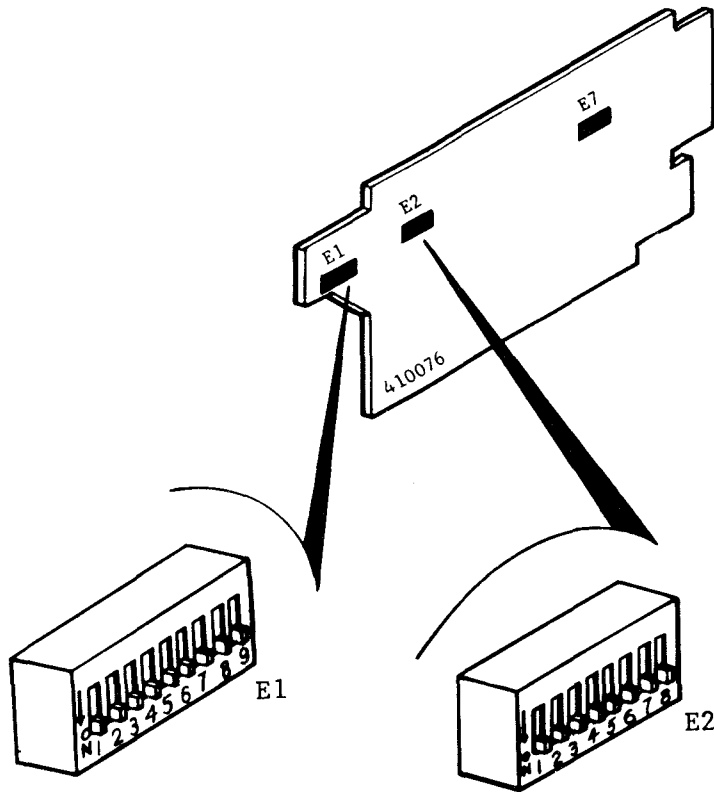
22. Foldover on Monocase Printer		E2							
		1	2	3	4	5	6	7	8
a.	Lower Case Prints as Error Symbol	-	-	○	-	-	-	-	-
b.	Lower Case Prints as Upper Case	-	-	●	-	-	-	-	-

\*

(See Legend for ●, ○, -, and \* on Page 1.)

SPECIFICATION 50897S

410076 Printer Logic Circuit Card Assembly (Cont)



23. Extended ASCII on Printer (Extended ASCII)		E1								
		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 19.a., b., or c.)	—	—	—	(As in 19.)	—	—	—	—	—*

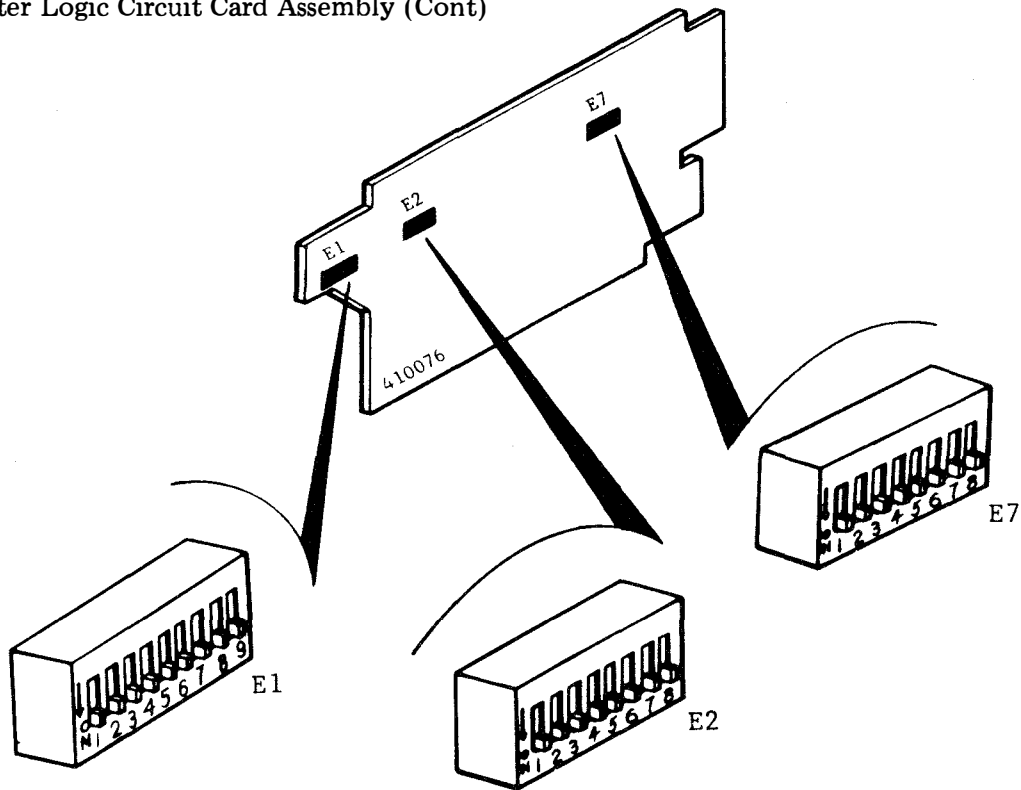
Note: 23.a. requires local engineering.

48. Incomplete Form Suppresses Paper Alarm		E2							
		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		E1								
		1	2	3	4	5	6	7	8	9
a.	Character After ESC Printed as Received	—	○	—	—	—	—	—	—	—*
b.	Printing of Character After ESC Suppressed	—	●	—	—	—	—	—	—	—

(See Legend for ●, ○, —, and \* on Page 1.)

410076 Printer Logic Circuit Card Assembly (Cont)



55. SI/SO Detection		E1								
		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		E2							
		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		E7							
		1	2	3	4	5	6	7	8
a.	SSI	—	—	—	—	—	—	●	—*
b.	OEM	—	—	—	—	—	—	○	—

58. Idle Line Motor Control		E7							
		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	—	—	—	—	—	—	—	●

(See Legend for ●, ○, —, and \* on Page 1.)

# SPECIFICATION 50897S

## 3. INSTALLATION

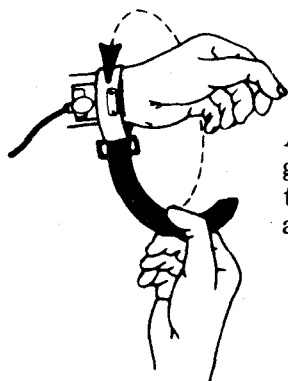
3.01 Installation of the 410076 circuit card requires the following steps:

(a) All printers.

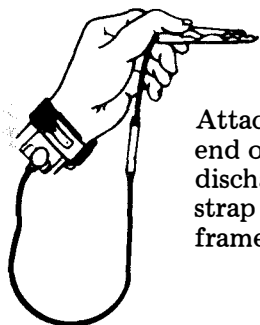
*Danger: Remove all ac power from printer cabinet.*

- Remove printer from cabinet and place on a suitable working surface.

*Warning: To avoid possible internal damage to circuitry, wear a 346392 static discharge strap connected to ground to allow static discharge before handling printer circuit card for removal or replacement. Avoid touching circuit lands or components as much as possible.*



Attach static ground strap tightly to wrist as shown.



Attach clip end of static discharge strap to frame ground.

(b) Friction feed printers.

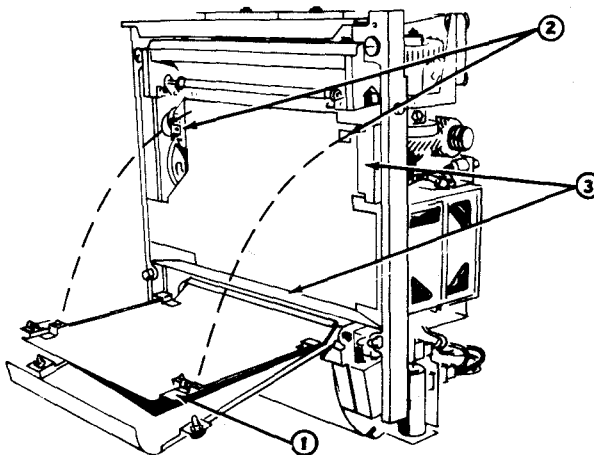
- Remove paper supply.

### Circuit Card Removal

- ① Remove two screws that secure circuit card cover to the bottom of the printer and allow cover to hang down.
- ② Grip the card at rectangular cutout and opposite edge of card. Apply an even pulling force and unplug card from the two rows of magnet assembly contacts.

- ③ 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.

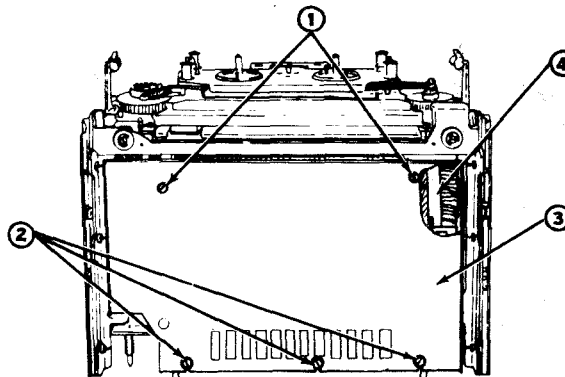
- ④ Reverse Steps ① and ③ to install the new 410076 circuit card. Refer to note below.



(c) Tractor feed printers, 80-column.

### Circuit Card Removal

- ① Remove two screws.
- ② Loosen three screws.
- ③ Slide plate out.
- ④ Remove connector from card, and using pull points, pull card down and out.
- ⑤ Reverse Steps ① and ④ to install the new 410076 circuit card.



*Note: After replacing 410076 circuit card, remake IMPELLER SHAFT SENSOR (Final) and FLAG SENSOR (Final) adjustments. Refer to appropriate Teletype document.*