

TELETYPEWRITER COMPATIBLE "DATASPEED*" 40/2
DISASSEMBLY/REASSEMBLY AND PARTS

CONTENTS	PAGE
1. GENERAL	1
2. KD AND KDP	2
MONITOR	2
OPERATOR CONSOLE	3
ELECTRONICS PACKAGE AND POWER SUPPLY	3
A. KD or KDP (Logic Under Monitor)	3
B. KDP (Logic in Pedestal)	5
C. KDP (Logic in Adjacent Cabinet)	6
WIRED FRAME	6
A. KD or KDP (Logic Under Monitor or Adjacent Logic)	6
B. KDP (Logic in Pedestal)	8
CIRCUIT CARDS	9
A. Controller	9
B. Display Logic	10
PRINTER	11
A. KDP (Adjacent Printer)	11
B. KDP (Printer Under Monitor)	13
3. PARTS	14
GENERAL	14
REPLACEMENT PARTS LIST	14
A. Display Logic	14
B. Controller Logic	14
C. Cables	14

1. GENERAL

1.01 This practice covers the Teletypewriter Compatible DATASPEED 40/2 Station Arrangements, and provides the information necessary to disassemble and reassemble DATASPEED 40/2 and associated equipment.

1.02 This section is reissued, to add detailed information on Display Logic. Revision arrows are used to indicate the changes.

1.03 When ordering replaceable components, unless otherwise specified, prefix each part number with the letters "TP" (ie, TP410055).

1.04 The following Warnings and Danger are to be used as safety measures for the apparatus and the craftsman.

Warning 1: Turn off all the power and signal sources before removing or replacing any component.

Warning 2: To avoid possible internal damage to circuitry, wear a 346392 static discharge strap connected to ground to allow static discharge before handling circuit cards for removal or replacement. Avoid touching circuit lands or components as much as possible.



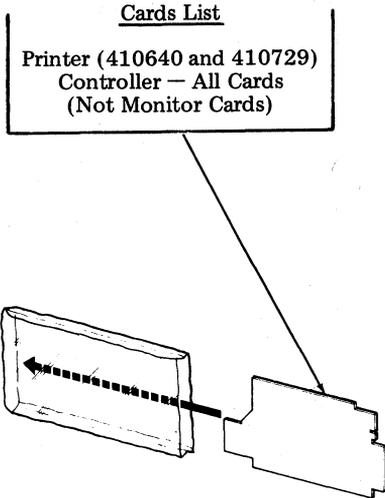
Attach static ground strap tightly to wrist.



Attach clip end of static discharge strap to frame ground.

Danger: Safety glasses must be worn whenever monitor cover is removed or whenever monitor is replaced.

*Registered Trademark of AT&TCo.



Warning 3: Place listed card in an RM150592 static bag immediately after removal from unit. Do not place any printer paper in the bag with the card. Keep the card in the static bag at all times. Never handle the card outside the bag without wearing a properly grounded 346392 static ground strap.

1.05 Disassembly and parts information for individual components in the DATA-SPEED 40 Station can be found in the following BSPs:

- 582-210-702 DATASPEED 40 Printer
- 582-211-700 DATASPEED 40 Operator Console
- 582-212-700 DATASPEED 40 Cabinets
- 582-213-701 DATASPEED 40 Display Monitor
- 582-214-700 DATASPEED 40 Power Supplies

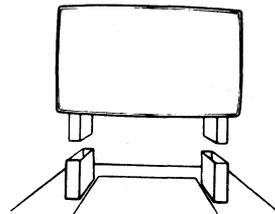
1.06 Reverse the disassembly instructions in order to reassemble the station components.

2. KD AND KDP

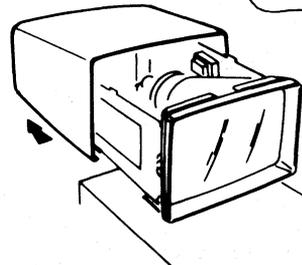
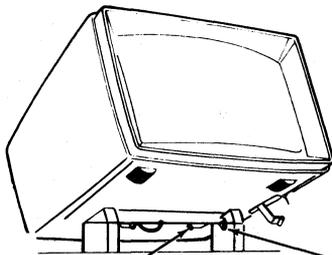
Warning: Remove all power from the set before performing any component replacement or conversions. This does not apply to cover removal for access to test switches, or to power on adjustments of the monitor.

MONITOR

- ① Removal of entire monitor unit from set:
Grasp monitor by sides near supports and simply lift up. Electrical cable connectors are part of support assembly.
- ② Removal of monitor housing:
Tilt monitor back and disengage latch. Slide housing back partially. Position monitor to its normal position making sure it locks in that position. Remove housing completely.



WEAR SAFETY GLASSES

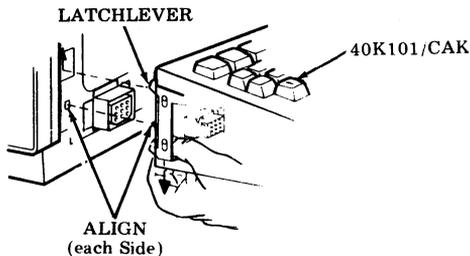


LATCH RELEASE

TILT RELEASE
(When Housing is Removed)

OPERATOR CONSOLE

- ① Place thumb on inward tab of console (both sides).
- ② Press downward into unlatched position (each side).
- ③ Remove console. (When replacing console, make sure locating pins are fully engaged before pushing latchlevers upward into locked position.)

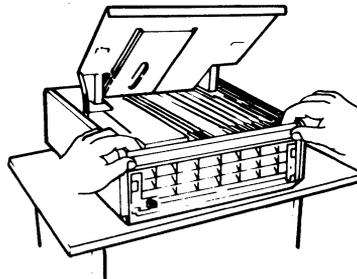


ELECTRONICS PACKAGE AND POWER SUPPLY

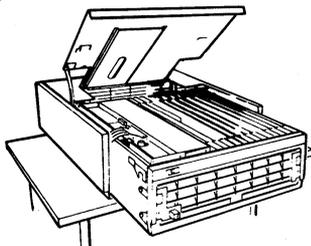
A. KD or KDP (Logic Under Monitor)

To remove cards or power supply:

- ① Open lid.
- ② Insert fingers as shown and lift then pull module forward.



Note: Do not attempt to lift at opcon (if present).



- ③ Move module forward until blocked by latch to provide sufficient clearance for card removal.

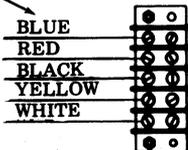
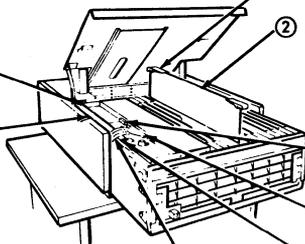
To remove circuit cards:

- ① Lift handle(s) carefully.
- ② Remove circuit card.

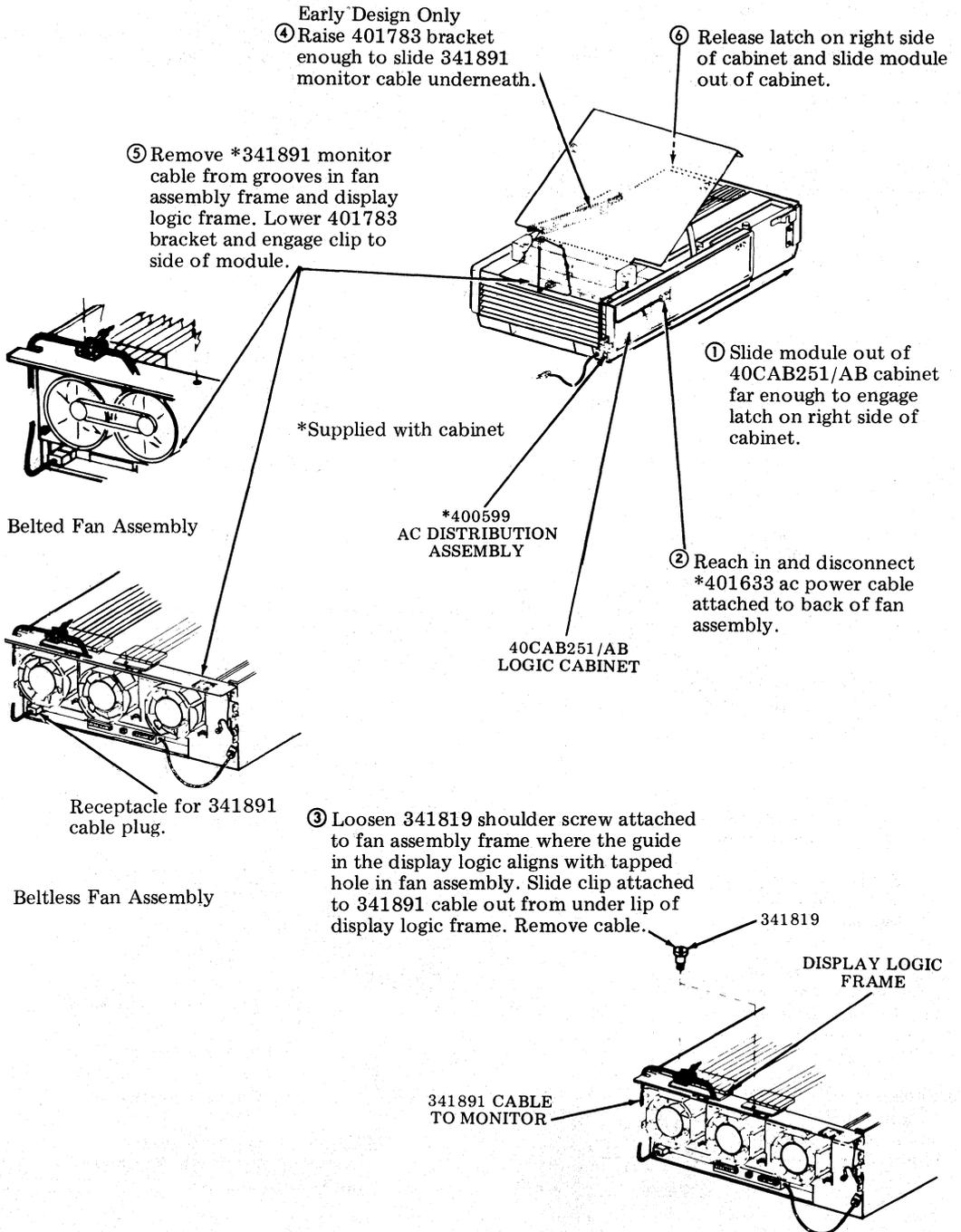
To remove and replace power supply:

- ⑤ Use handle to lift out power supply.
- ⑥ Replace power supply making sure to seat on locating pins.
- ⑦ Replace wires and just start screws. Then slip in cable terminals and tighten screws.
- ⑧ Replace insulator and plug in ac power cord and reposition retainer bracket.

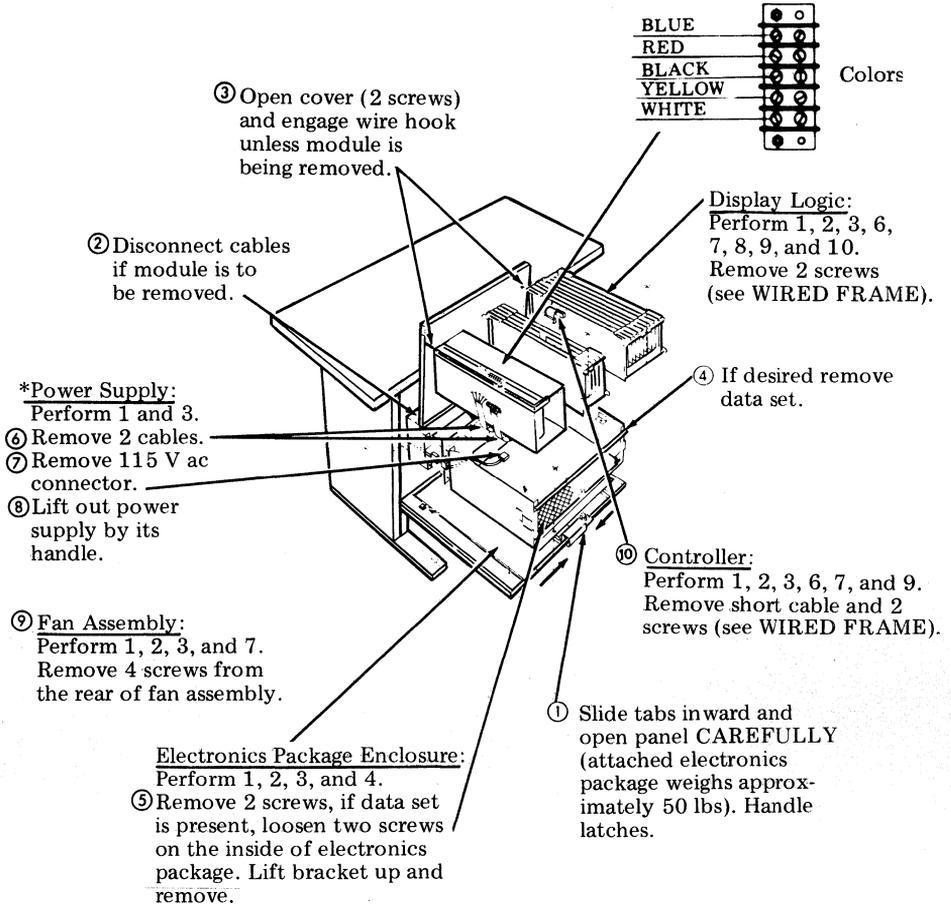
- ① Disconnect ac power cord.
- ② Remove insulator.
- ③ Remove 5 screws. Remove cable and wires from terminal strip.
- ④ Loosen screw sufficient to raise and turn retaining bracket away from handle.



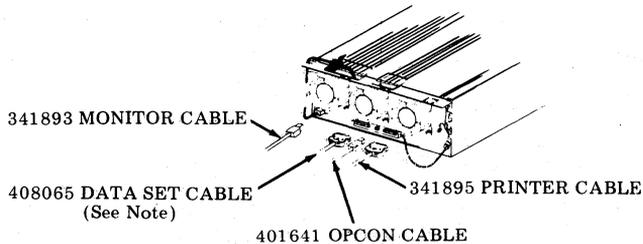
POWER SUPPLY
RETAINER
BRACKET



B. KDP (Logic in Pedestal)

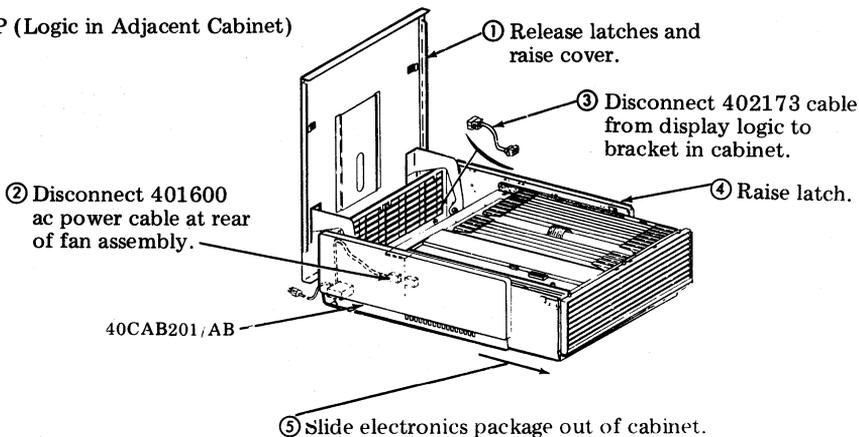


*To reinstall power supply, seat it on locating pins in the base of the enclosure. Cables are routed over handle.



Note: 408066, 408067, 408068 or 341896 cable may be used instead of 408065.

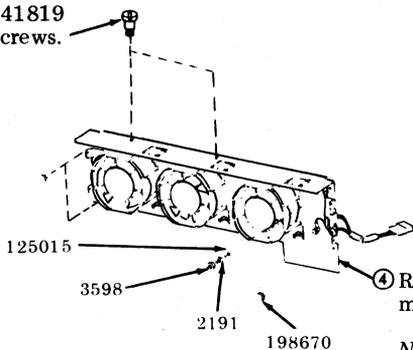
C. KDP (Logic in Adjacent Cabinet)



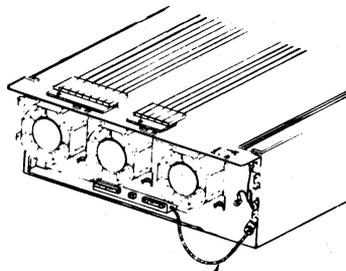
WIRED FRAME

A. KD or KDP (Logic Under Monitor or Adjacent Logic)

① Remove 341819 shoulder screws.



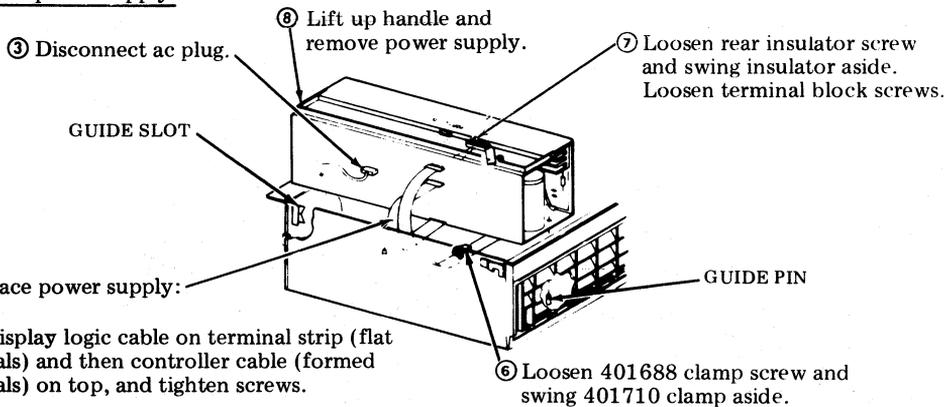
④ Remove fan assembly mounting hardware.



② Disconnect braided ground strap.

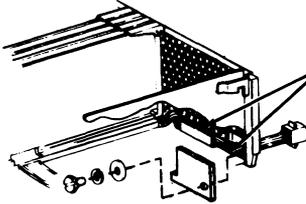
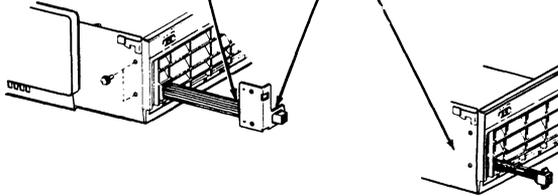
Note: Fan assembly may be earlier design belted fan assembly.

⑤ Remove power supply.



① Remove 401253 bracket.

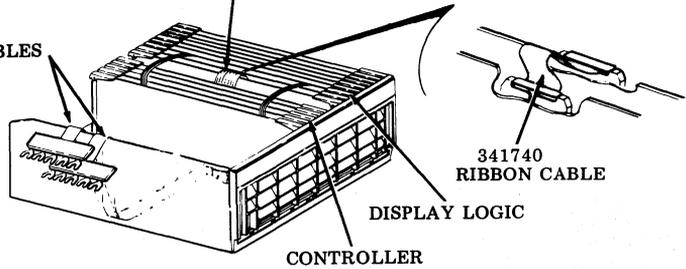
② Dislodge opcon connector from bracket.



③ Remove 402166 cable protector (if present). Feed 341860 opcon cable carefully out of cable tray.

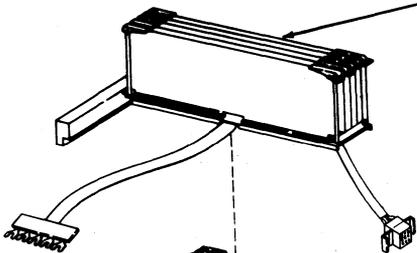
④ Remove 341740 ribbon cable.

TWO RIBBON CABLES

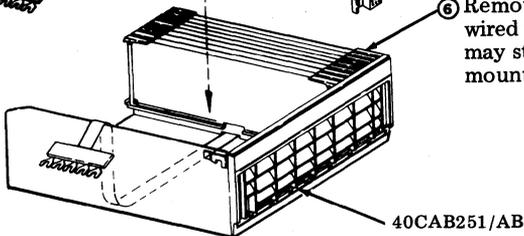


⑤ Remove controller wired frame. (Frame may still have cards mounted.)

Note: If attendant selectable features 403400 modification kit is used, disconnect cables from 410679 circuit card.

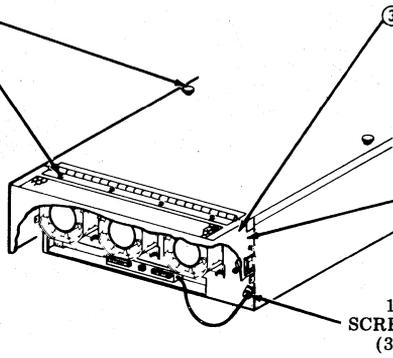


⑥ Remove display logic wired frame. (Frame may still have cards mounted.)



B. KDP (Logic in Pedestal)

- ① Remove four hinge screws, then loosen two thumbscrews and remove cover.



- ③ Remove fan and shroud.
Note: Fan assembly may be earlier design belted fan assembly.

3598 NUT (6-40)
125015 FLAT WASHER
2191 LOCKWASHER

198670
SCREWS (6-40)
(3 Places)

(Rear of Fan Assembly)

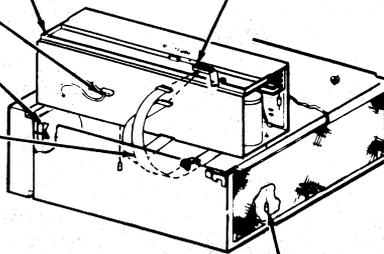
- ⑤ Lift up handle and remove power supply.

- ④ Loosen rear insulator screw and swing insulator aside. Loosen terminal block screws. Remove ribbon cables.

- ② Disconnect ac plug.

GUIDE SLOT

To replace power supply:
Place display logic cable on terminal strip (flat terminals) and then controller cable (formed terminals) on top, and tighten screws.

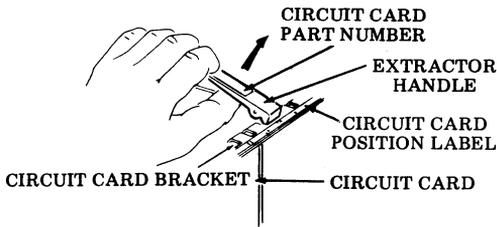


GUIDE
PIN

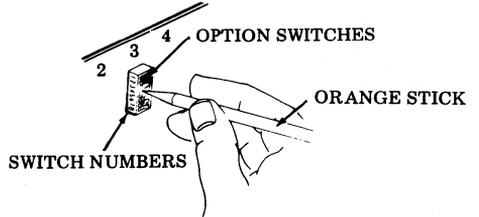
CIRCUIT CARDS

If any field options are to be changed or checked for proper position, turn off power and remove cards using the following procedures.

The station feature and option record should be marked to show any options that differ from factory furnished (*) and should be filled in to indicate what features have been provided in the set or station.

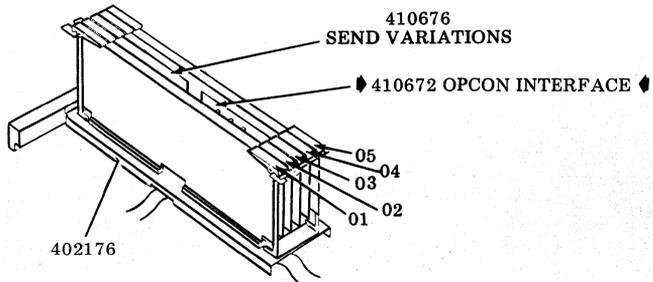


① Extracting circuit card.



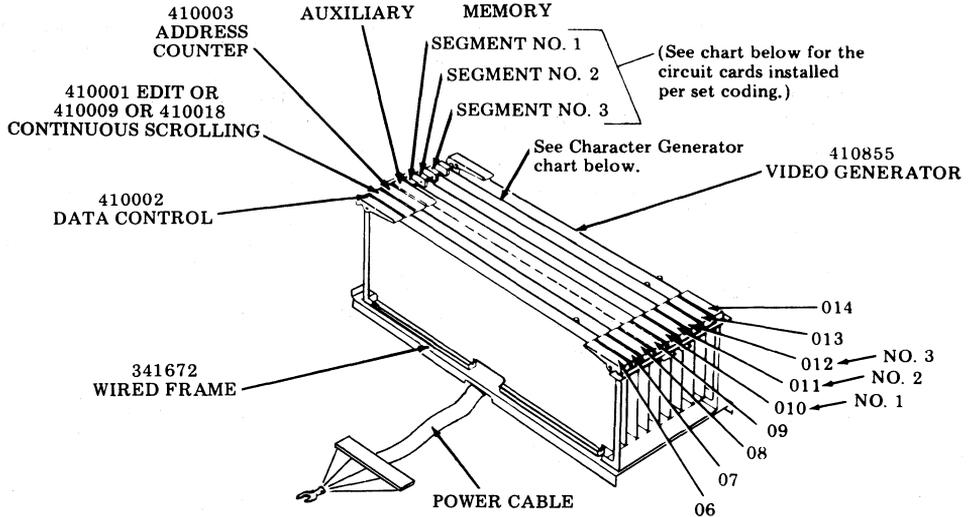
② Activating options.

A. Controller



Position	40C204/BA	40C204/BB	Card Description
01		410770	Printer Interface
02	410679	410679	Full Duplex Interface
03	410672	410672	Opcon Interface
	410676	410676	Send Variations
04	410675	410675	Message Control
05	410674	410674	Data Bus and Decode
Wired Frame	402176	402176	

◆ B. Display Logic ◆



POSITION NUMBER	40DL291/ZZ	40DL291/BR	40DL291/BS	CIRCUIT CARD DESCRIPTION
06	410002	410002	410002	Data Control
07	410001	410018	¶	Edit
08	410003	410003	410003	Address Counter
09	—	—	—	—
010	—	—	—	Memory Segment No. 1 §
011	—	—	—	Memory Segment No. 2 §
012	—	—	—	Memory Segment No. 3 §
013	410657	410657	410657	Cache and Character Generator
014	410855	410855	410855	Video Generator
Wired Frame	341672	341672	341672	—

§ Memory circuit cards (410014 or 410004 — basic edit, 410015 or 410005 — full edit) are ordered separately. The 410014 and 410004 circuit cards are physically and functionally interchangeable, and similarly 410015 and 410005 are physically and functionally interchangeable.

¶ Edit circuit cards (410001 or 410018 which also provides continuous scrolling features) are ordered separately for 40DL291/BS display logic. The 410009 circuit card is manufacture discontinued.

Various cache and character generator circuit cards are available as indicated in the following chart.

CHARACTER GENERATOR OPTIONS	
POSITION 013	DISPLAY TYPE
410657	Standard ASCII
410020	Line Drawing
410021	Fractions
410022	Weather

PRINTER

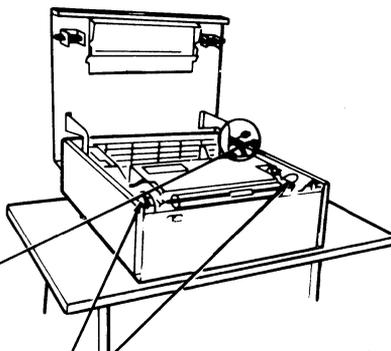
A. KDP (Adjacent Printer)

Friction Feed Printer

To remove and replace entire printer assembly:

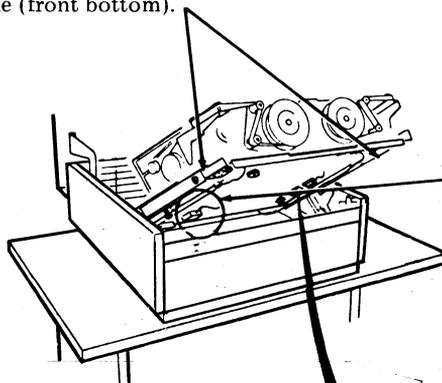
Note: The circuit card can be removed after step 4 of disassembly. If printer is not being removed, omit steps 2 and 3.

- ① Turn power off. Open cover.
- ② Disconnect the interlock cable (P106) connector.
- ③ Remove paper roll.

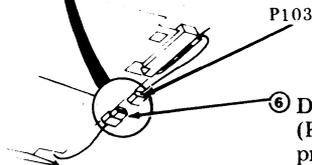


- ④ Release printer and raise to the tilt position by depressing the left and right release levers and lifting printer.

- ⑦ Release (push in) the printer slide detents and pull the printer out by grasping it by the frame (front bottom).

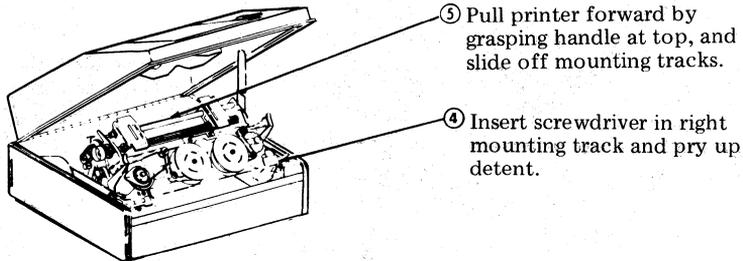
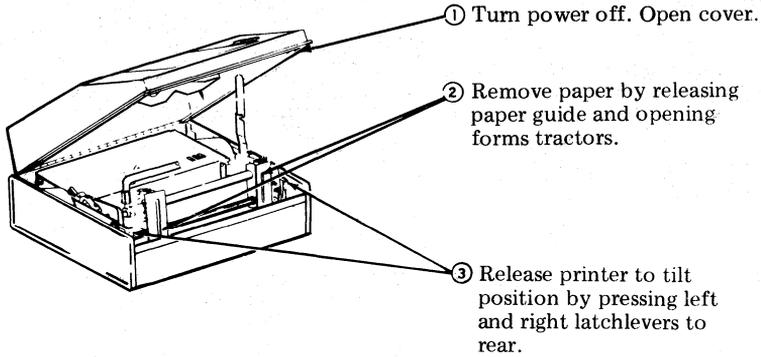


- ⑤ Disconnect the 115 V ac connector.



- ⑥ Disconnect SSI cable (P103) from printer cable.

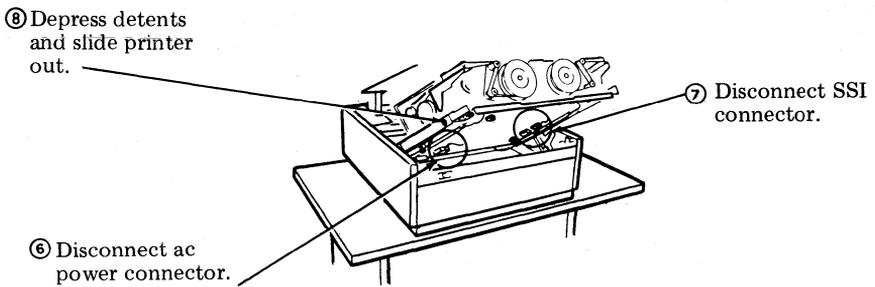
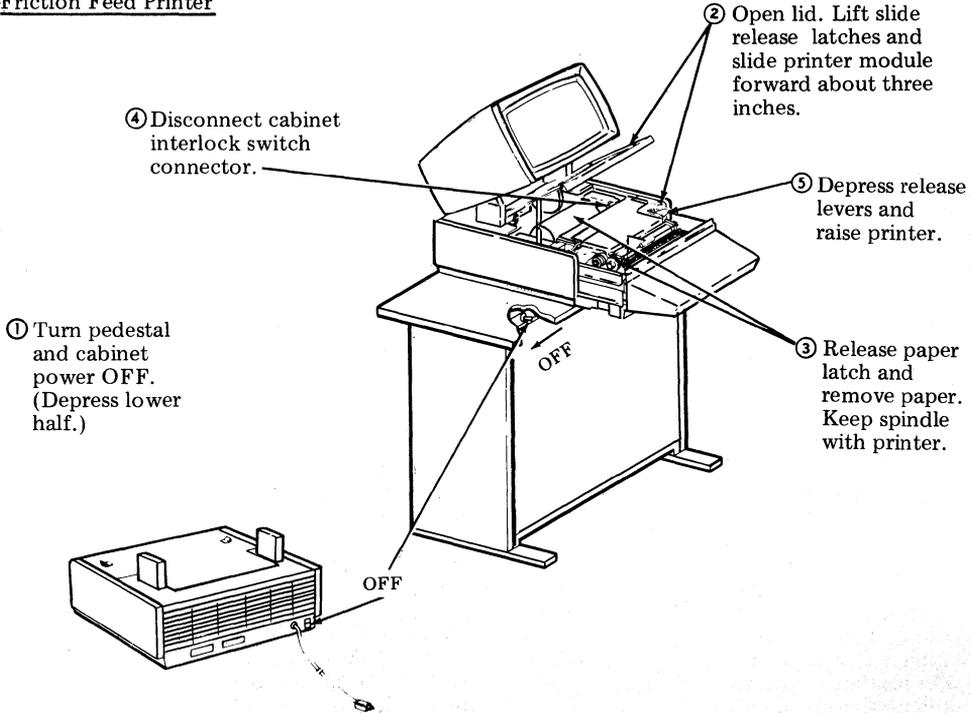
Tractor Feed Printer — 80- and 132-Column Printers (Printer shown is 80-Column.)



In reassembly, make sure connectors at rear are fully connected.

B. KDP (Printer Under Monitor)

Friction Feed Printer



3. PARTS

Ref.
Page

GENERAL

3.01 Field replacement components of the controller and its cables are listed in the following index, showing the page number in the section where they are illustrated.

410018	Circuit Card Assembly	10
◆410020	Circuit Card Assembly	10
◆410021	Circuit Card Assembly	10
◆410022	Circuit Card Assembly	10
410657	Circuit Card Assembly	10
410855	Circuit Card Assembly	10

3.02 Parts for the other station components are listed in the following BSPs:

582-210-702	DATASPEED 40 Printer
582-211-700	DATASPEED 40 Operator Console
582-212-700	DATASPEED 40 Cabinets
582-213-701	DATASPEED 40 Display Monitor
582-214-700	DATASPEED 40 Power Supplies

B. Controller Logic

402176	Wired Frame	9
410672	Circuit Card Assembly	9
410674	Circuit Card Assembly	9
410675	Circuit Card Assembly	9
410676	Circuit Card Assembly	9
410679	Circuit Card Assembly	9
410770	Circuit Card Assembly	9

REPLACEMENT PARTS LIST

A. Display Logic

Ref.
Page

341672	Wired Frame	10
341740	Cable, Controller/Display	7
410001	Circuit Card Assembly	10
410002	Circuit Card Assembly	10
410003	Circuit Card Assembly	10
◆410004	Circuit Card Assembly	10
410005	Circuit Card Assembly	10
410009	Circuit Card Assembly	10
◆410014	Circuit Card Assembly	10
◆410015	Circuit Card Assembly	10

C. Cables

341891	Cable, Monitor	4
341893	Cable, Monitor	5
341895	Cable, Printer	5
341896	Cable, Data Set	5
401600	Cable, Fan ac	6
401633	Cable, Power ac	4
401641	Cable, Opcon	5
402173	Cable, Display Logic	6
408065	Cable, Data Set	5
408066	Cable, Data Set	5
408067	Cable, Data Set	5
408068	Cable, Data Set	5