

43 FRICTION AND SPROCKET FEED PRINTER

DISASSEMBLY/REASSEMBLY

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1. GENERAL		1.10 Some parts that are not listed in the parts sections are shown as necessary to the disassembly procedures such as screws and ring retainers, etc. These parts are common to other Teletype Corporation product lines and if needed may already be available in field repair kits or can be ordered.
1.01 This section covers disassembly and reassembly procedures for the 43 Friction and Sprocket (Pin) Feed Printer.		
1.02 This section is reissued to change the title and update some of the disassembly procedures.		1.11 When ordering replaceable components, unless otherwise specified, prefix each part number with the letters "TP" (ie, TP430047).
1.03 The printer is not considered a field replaceable item. Any trouble can be corrected by adjustments or by replacement with maintenance spares.		1.12 Reference in the procedures to left and right, up or down, and top or bottom, etc, refer to the printer in its normal operating position as viewed by the operator.
1.04 Procedures are provided to remove individual assemblies and parts and are		

SECTION 574-501-720

2. TOOLS REQUIRED

2.01 The following tools may be required when performing the printer disassembly and reassembly procedures. Most of these items should normally be present in standard maintenance tool kits.

<u>Part No.</u>	<u>Description</u>
75765	Hook, Pull Spring
95368	Screwdriver, 1/8 Inch, 2 Inch Blade
100704	Screwdriver w/Clip, 10 Inch Blade
100982	Screwdriver w/Clip, 1/4 Inch 6 Inch Blade

<u>Part No.</u>	<u>Description</u>
108285	Pliers, Long-Nose
110271	Wrench, Hex Key
124682	Wrench, Hex Key
125752	Wrench, 3/16 Inch Socket
129534	Wrench, Open End, 3/16 Inch and 1/4 Inch Handle
135676	Bit, 1/4 Inch Socket
135677	Bit, 5/16 Inch Socket
135678	Hook, Pull Spring
142554	Hook, Push Spring
142555	Tweezers
151392	Wrench, Open End, 5/16 Inch and 3/8 Inch
152835	Extractor, I.C.
407326	

### 3. DISASSEMBLY/REASSEMBLY

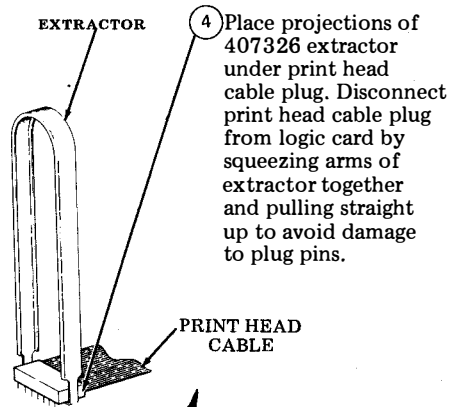
#### PRINT HEAD WITH COVER

3.01 To remove the print head with cover:

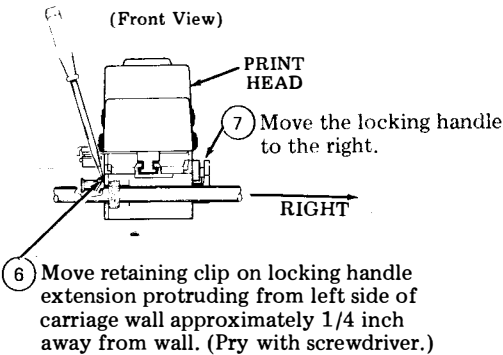
*Caution: When handling loose print heads, care must be taken to prevent print head cable connector pins from being bent.*

*Note: Print head removal and replacement is also shown in Teleprinter Disassembly/Reassembly, Section 574-500-720.*

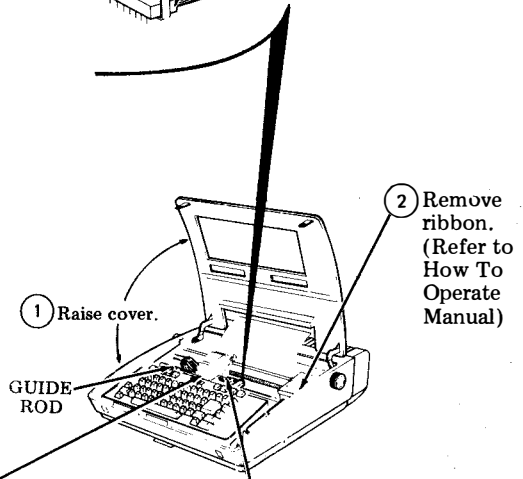
- ⑧ Grasp print head and pull forward. Lift front of print head to disengage locking channels.



- ④ Place projections of 407326 extractor under print head cable plug. Disconnect print head cable plug from logic card by squeezing arms of extractor together and pulling straight up to avoid damage to plug pins.

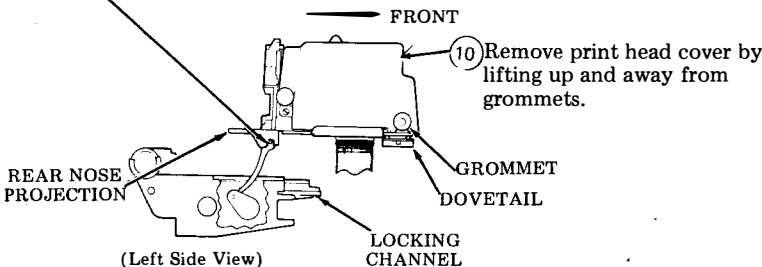


- ⑥ Move retaining clip on locking handle extension protruding from left side of carriage wall approximately 1/4 inch away from wall. (Pry with screwdriver.)



- ① Raise cover.
- ② Remove ribbon. (Refer to How To Operate Manual)
- ③ Move print head and carriage to the right of the print head cable plug.
- ⑤ Unlock print head by pulling locking handle forward until it strikes the guide rod.

- ⑨ Disengage print head from roll pin on end of link. Remove print head.

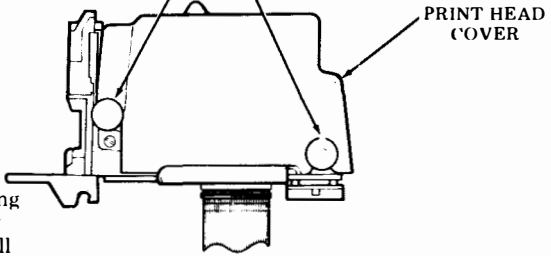


- ⑩ Remove print head cover by lifting up and away from grommets.

3.02 To replace the print head with cover:

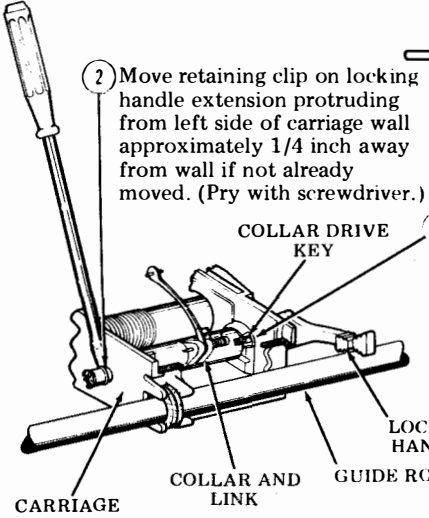
*Caution: When handling loose print heads, care must be taken to prevent print head cable connector pins from being bent.*

1 Verify that print head cover is attached securely to rubber grommets. (Push down until secure.)



PRINT HEAD COVER

2 Move retaining clip on locking handle extension protruding from left side of carriage wall approximately 1/4 inch away from wall if not already moved. (Pry with screwdriver.)



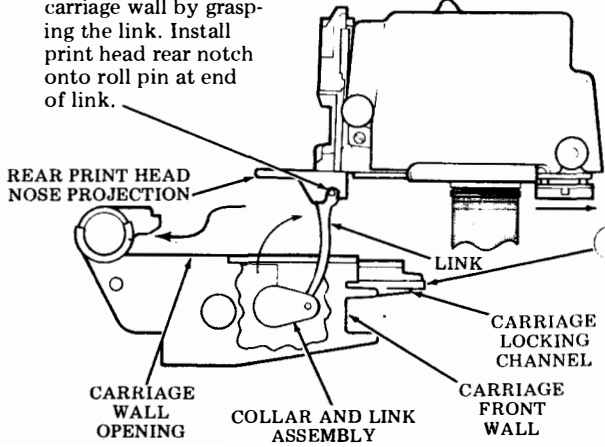
COLLAR DRIVE KEY

3 Rotate locking handle forward until it strikes the guide rod then pull locking handle to the right until collar drive key on locking handle engages slot in right carriage side wall. Observe interaction of these parts for use when performing step 7.

Note: Collar and link may snap rearward.

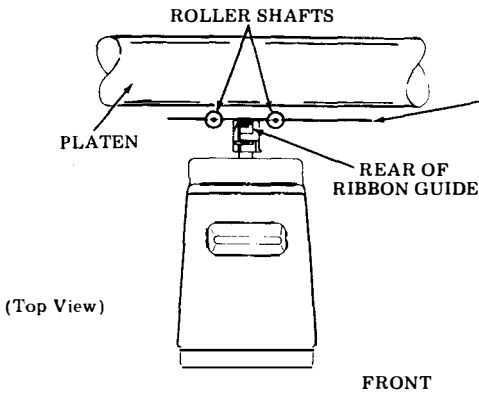
5 Hold collar and link forward (by pressing down on the print head) while inserting nose projection in carriage wall opening.

4 Collar and link must be manually rotated and held toward front of carriage wall by grasping the link. Install print head rear notch onto roll pin at end of link.



6 Pivot front of print head down to carriage locking channel.

(Left View)

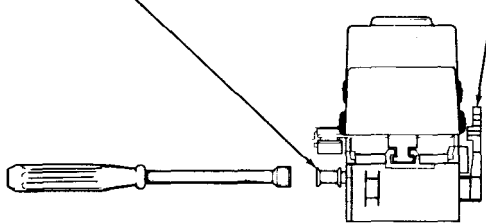


7 Slowly push print head rearward and further into the carriage locking channel until the rear of the ribbon guide is even with center of roller shafts. Apply continuous leftward pressure to locking handle at its pivot shaft, while slowly pulling print head forward until collar drive key on handle engages (snaps) into slot in collar.

Note: Parts referred to were visible in step 3.

9 Position and hold print head and carriage assembly to right side of printer and use a 5/16 inch socket wrench to push clip against carriage wall.

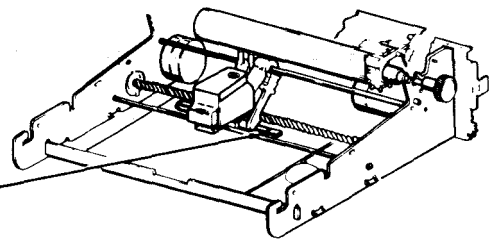
(Front View)



8 Move the handle all the way to the rear, locking the print head in close proximity to the platen by the additional force necessary to detent the handle. If handle does not move to rear, the drive key did not properly engage the collar slot (step 7).

Note: Check to make sure there is some clearance between print head and platen before detenting handle. Check PRINT HEAD TO PLATEN adjustment.

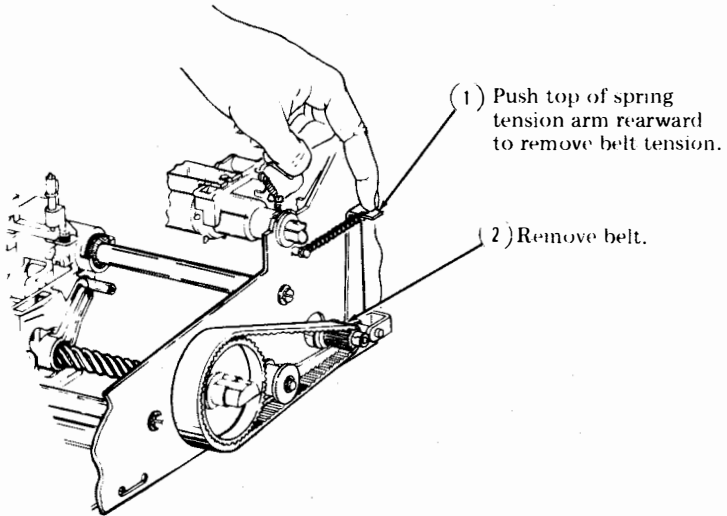
10 Check that no connector pins are bent and carefully connect the print head cable plug to the logic card. Make sure cable does not touch left side frame when the carriage moves fully left.



11 Install ribbon. (Refer to How To Operate Manual.)

SPACING MOTOR BELT

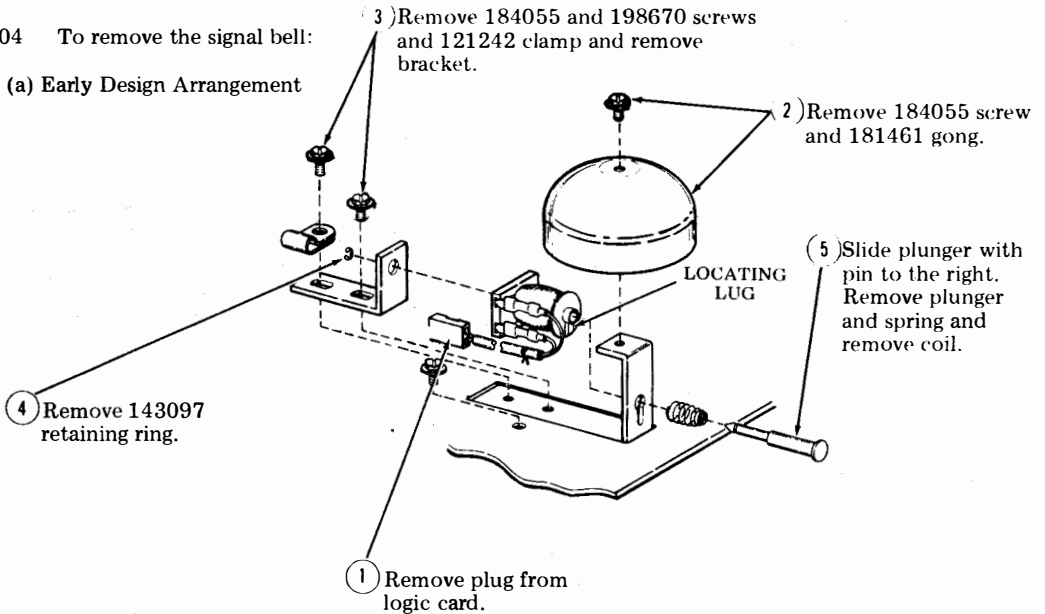
3.03 To remove the spacing motor belt:



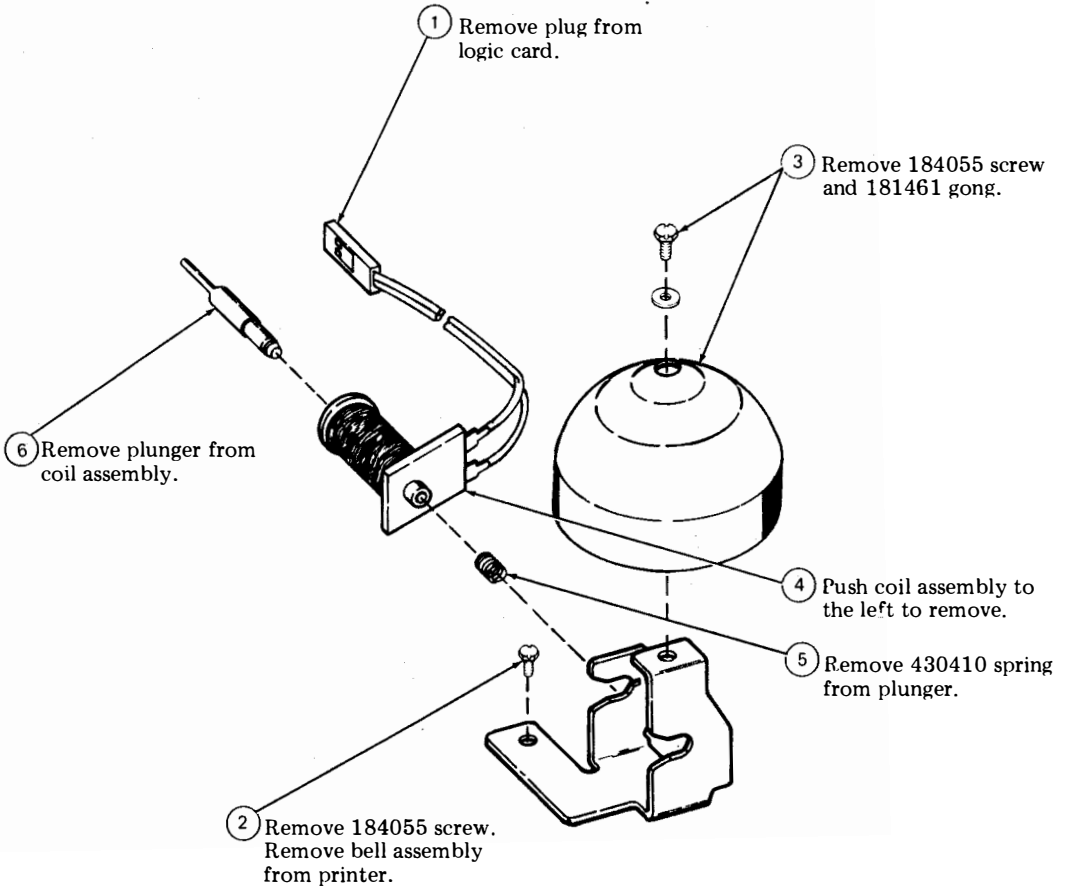
SIGNAL BELL

3.04 To remove the signal bell:

(a) Early Design Arrangement



## (b) Late Design Arrangement

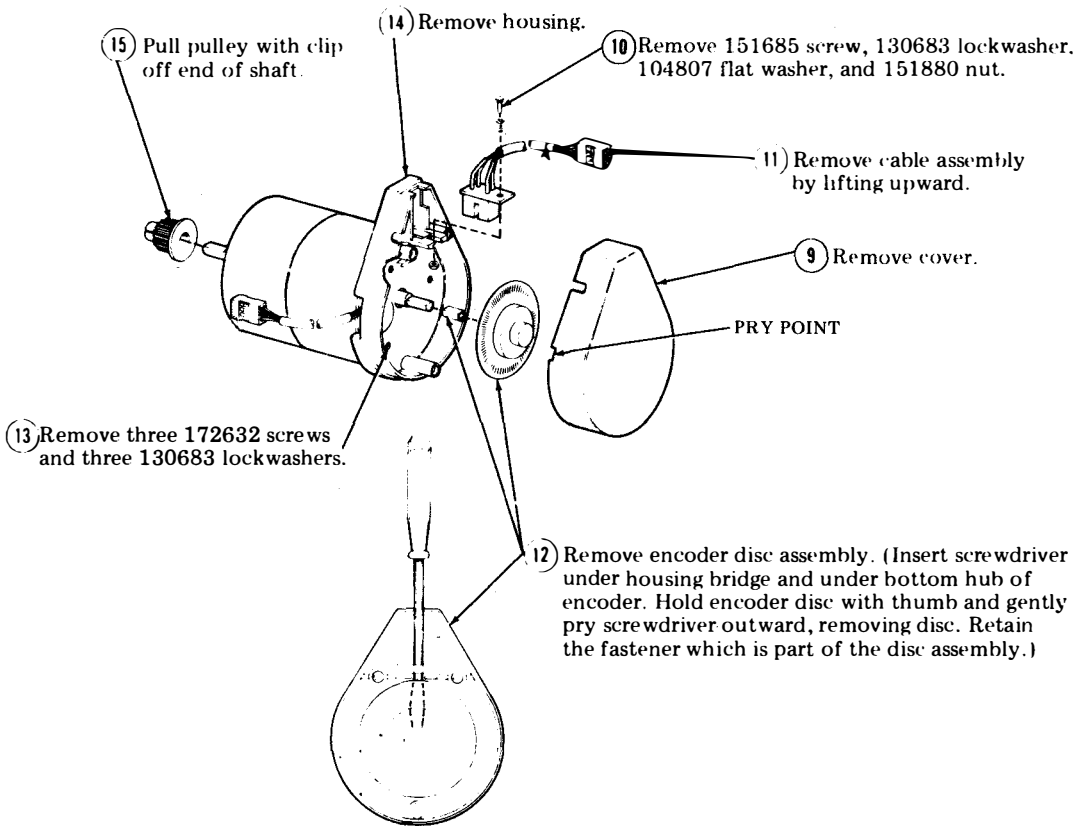
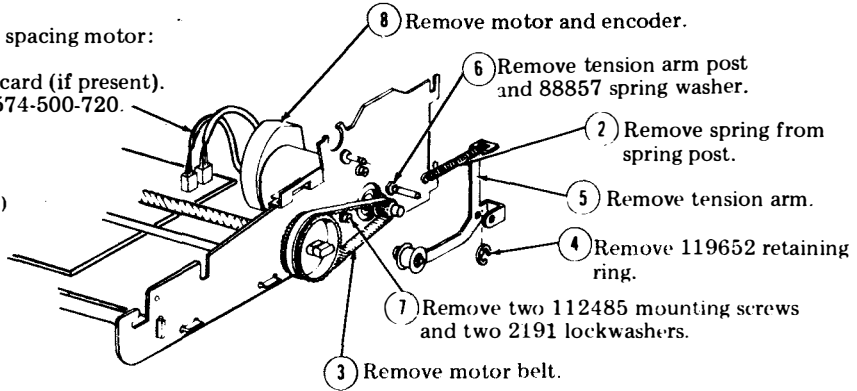


SPACING MOTOR WITH CABLE AND ENCODER

3.05 To remove the spacing motor:

- ① Remove the logic card (if present). Refer to Section 574-500-720.

(Right Side View)

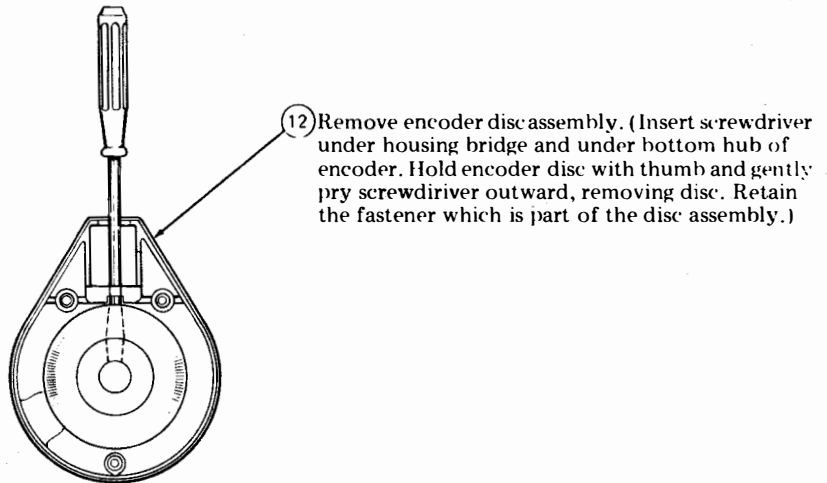
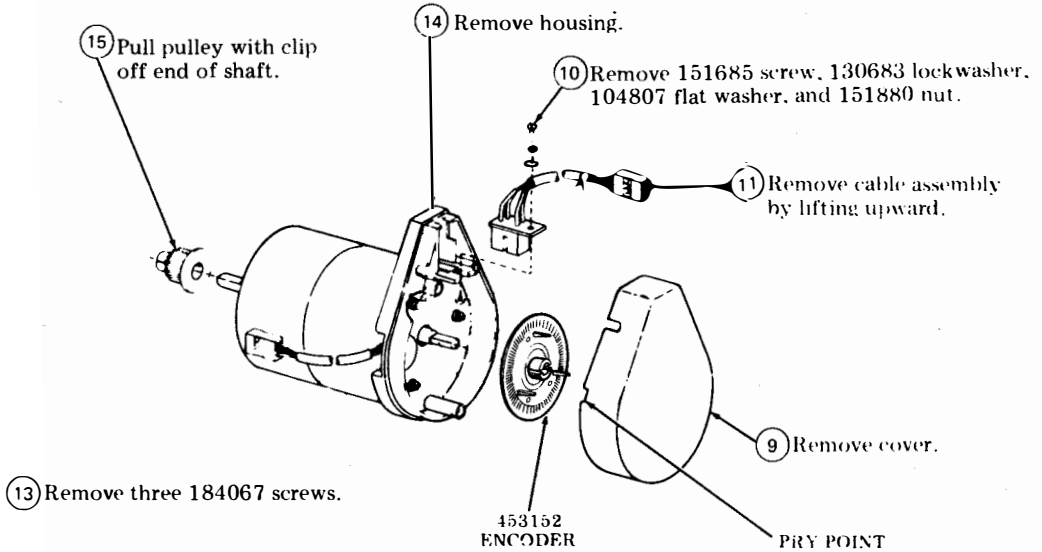


**Warning:** Do not pull on metal disc edges as this will deform encoder disc causing it to rub against the encoder.

**Note:** In reassembly, make sure disc does not rub on encoder assembly.



(b) 430441 Motor with cable and encoder.

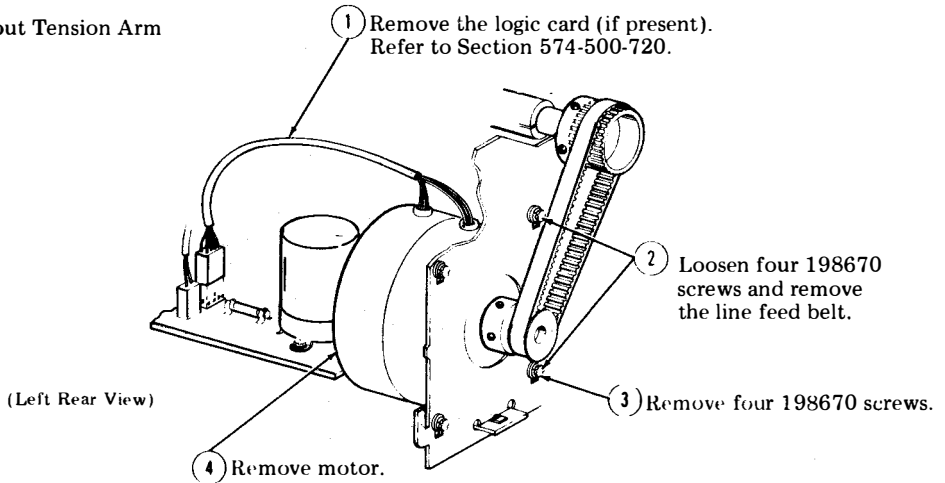


*Note:* In reassembly, make sure disc does not rub on encoder assembly.

LINE FEED MOTOR

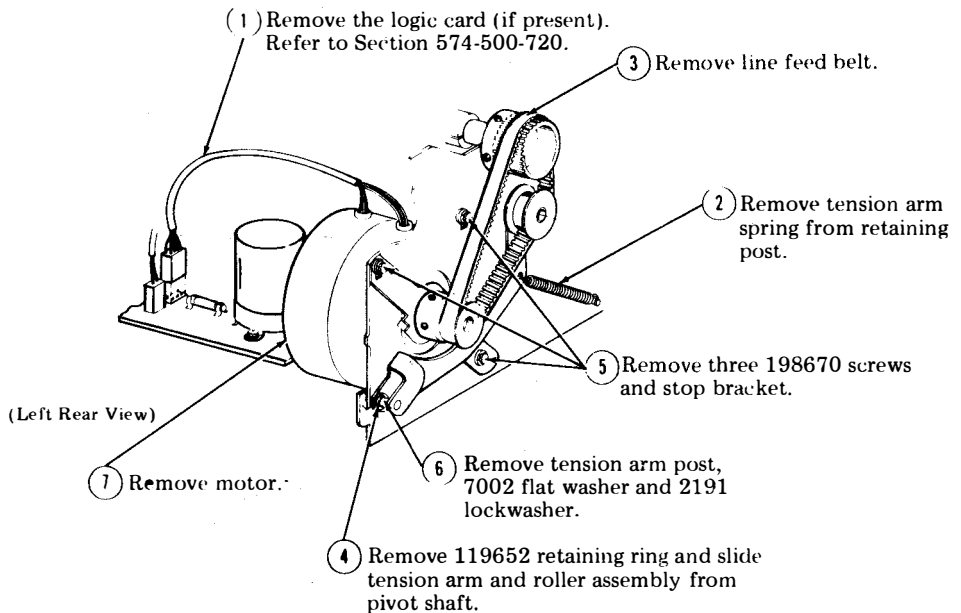
3.06 To remove the line feed motor:

(a) Without Tension Arm



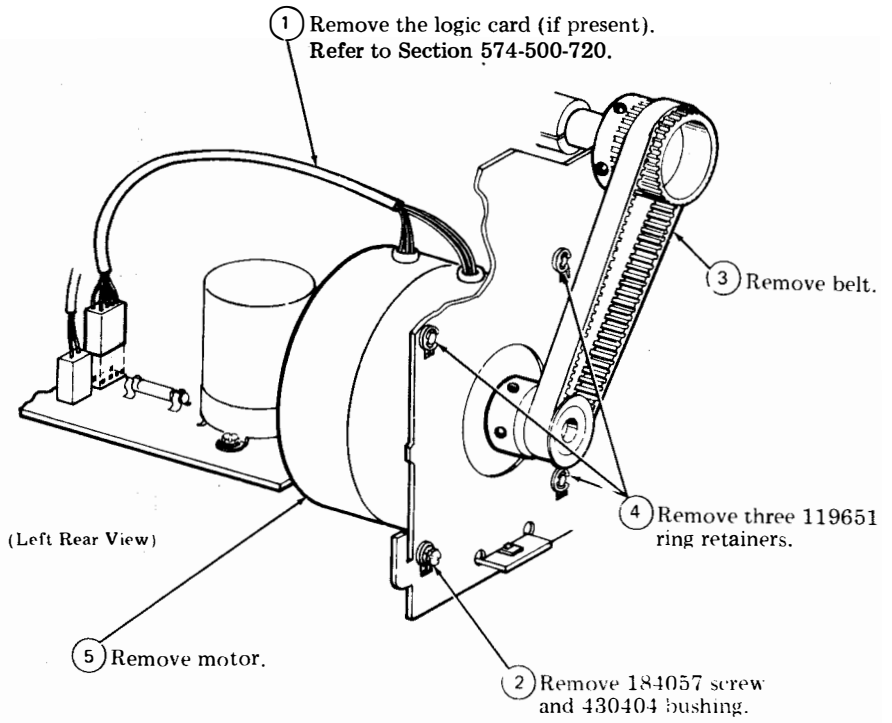
Note: In reassembly, perform LINE FEED BELT TENSION adjustment

(b) With Tension Arm



Note: In reassembly, perform STOP BRACKET adjustment.

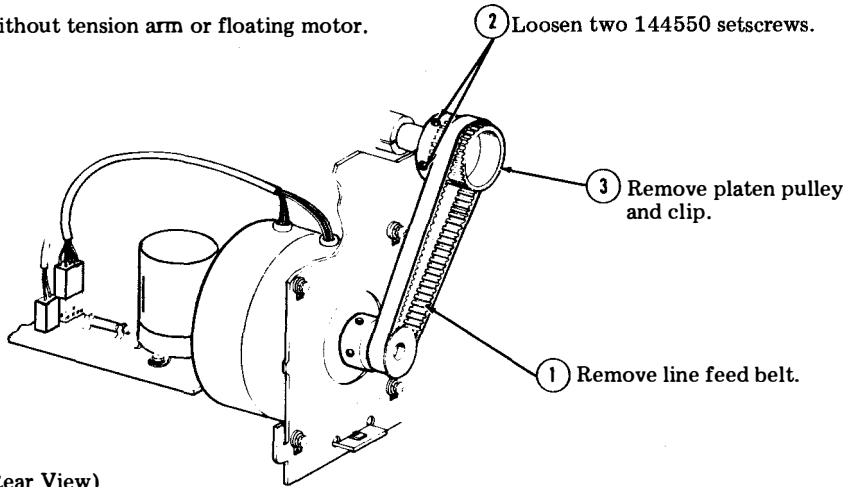
(c) With floating motor



PLATEN

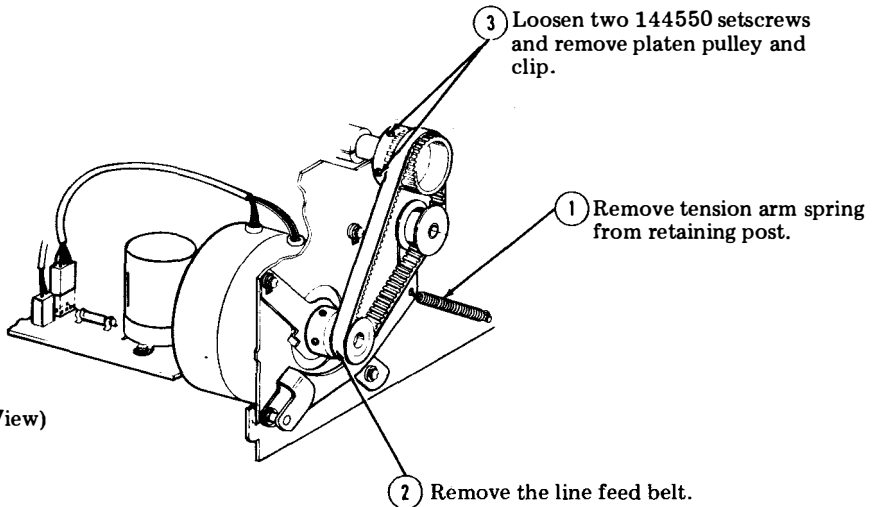
3.07 To remove the platen:

(a) Motor without tension arm or floating motor.

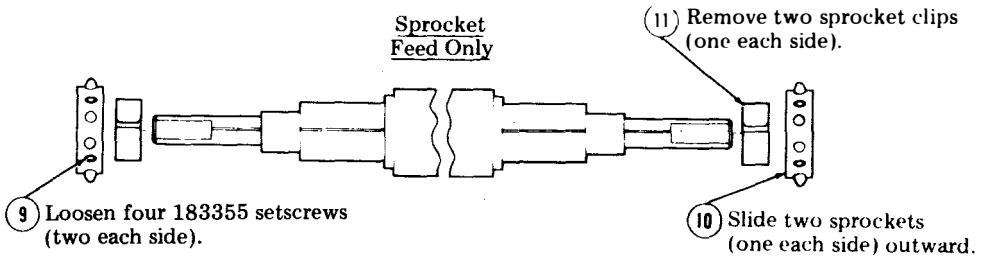
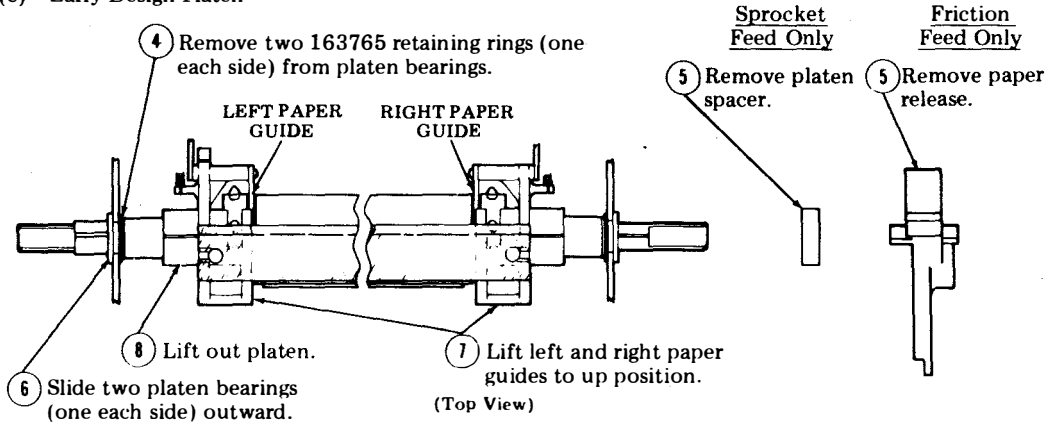


*Note:* In reassembly, position the setscrews away from the slot in the platen clip.

(b) Motor with tension arm.



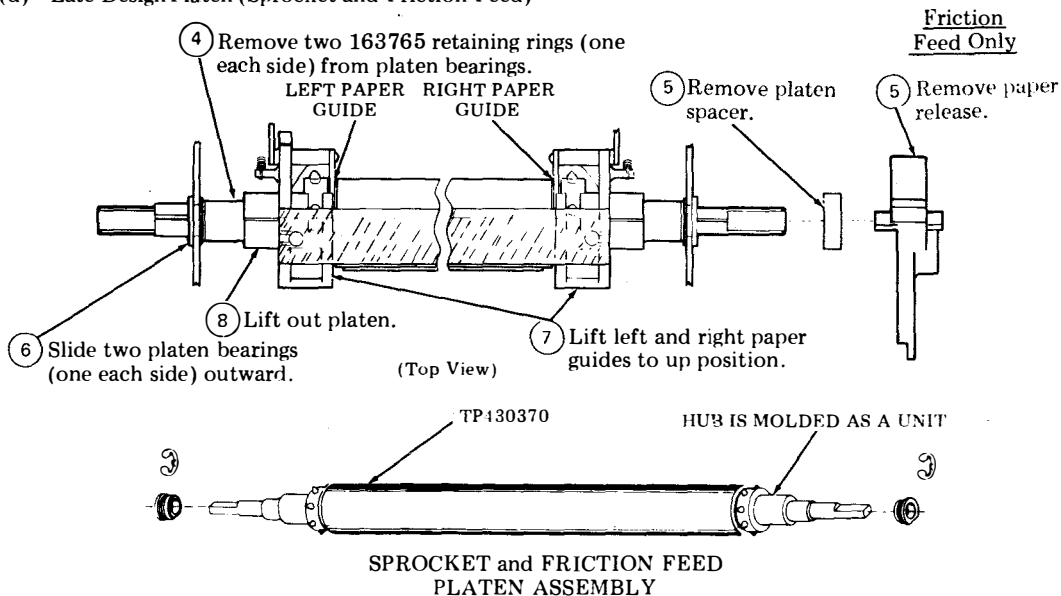
(c) Early Design Platen



*Note:* In reassembly, position the setscrews away from the slot in the sprocket clip.

Perform the LEFT and RIGHT SPROCKET adjustments and PRINTED LINE POSITION and PLATEN ENDPLAY adjustments.

(d) Late Design Platen (Sprocket and Friction Feed)



Perform the PLATEN ENDPLAY adjustments.

LEAD SCREW

3.08 To remove the lead screw :

ONE OR TWO PIECE LEFT BEARING

LEFT BEARING HOUSING

CARRIAGE NUT

CARRIAGE

CARRIAGE NUT

SPRING INNER BEARING OR 1 PIECE OR SHIM OUTER BEARING

RIGHT SIDE FRAME

RIGHT BEARING HOUSING

1 Remove keyboard, if present.  
(Refer to Section 574-500-720.)

4 Push in right bearing housing to clear right frame. Rotate 90 degrees and spring will force bearing and housing away from side frame. Remove housing with bearing, inner bearing or shim, and spring.

2 Remove spacing belt.

3 Remove lead screw pulley and clip by pulling to the right.

5 Unscrew lead screw from carriage nut and remove through hole in right side frame. Retain left inner bearing, if used, which will be free when lead screw is removed.

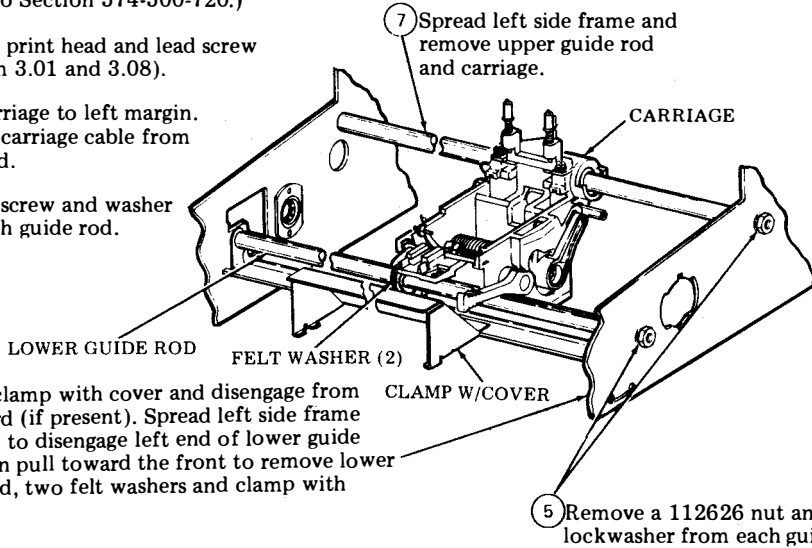
(Right Side View)

CARRIAGE WITH POST ASSEMBLY

3.09 To remove the carriage with post assembly:

*Note:* The upper guide rod must be nickel plated. The lower guide rod may be nickel plated or black oxide.

- ① Remove keyboard, if present. (Refer to Section 574-500-720.)
- ② Remove print head and lead screw (perform 3.01 and 3.08).
- ③ Move carriage to left margin. Remove carriage cable from logic card.
- ④ Remove screw and washer from each guide rod.



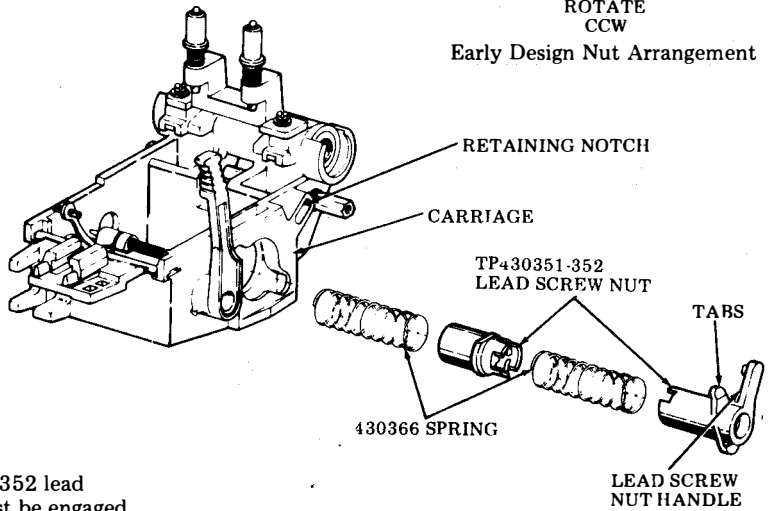
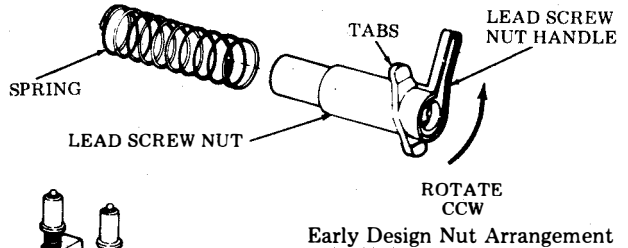
- ⑥ Spread clamp with cover and disengage from logic card (if present). Spread left side frame outward to disengage left end of lower guide rod, then pull toward the front to remove lower guide rod, two felt washers and clamp with cover.

- ⑤ Remove a 112626 nut and a 45815 lockwasher from each guide rod.

LEAD SCREW NUT

3.10 To remove the lead screw nut:

- ① Remove keyboard, if present. (Refer to Section 574-500-720.)
- ② Remove print head and lead screw (perform 3.01 and 3.08).
- ③ Tilt lead screw nut handle outward to clear retaining notch in carriage. Rotate counterclockwise (CCW) until tabs on nut align with opening in carriage. Spring will force nut away from carriage.
- ④ Remove springs and nuts.



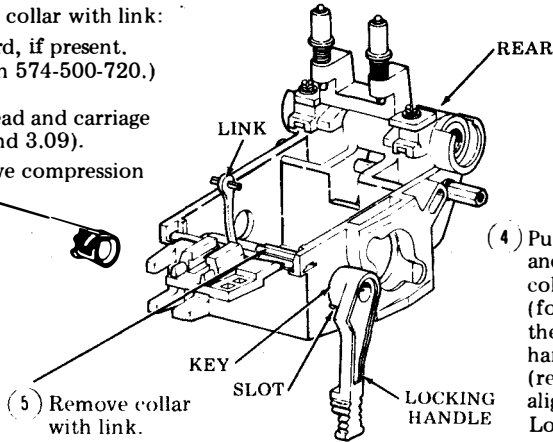
*Note:* The 430351 and 430352 lead screw nuts are keyed and must be engaged when properly installed.

Late Design Nut Arrangement

## COLLAR WITH LINK

3.11 To remove the collar with link:

- ① Remove keyboard, if present.  
(Refer to Section 574-500-720.)
- ② Remove print head and carriage  
(perform 3.01 and 3.09).
- ③ Remove compression  
ring.



- ④ Push locking handle to the left and rotate locking handle and collar fully counterclockwise (forward). Pull the handle to the right while slowly rotating handle and collar clockwise (rearward) until key on handle aligns with slot in carriage. Locking handle will pop out.
- ⑤ Remove collar with link.

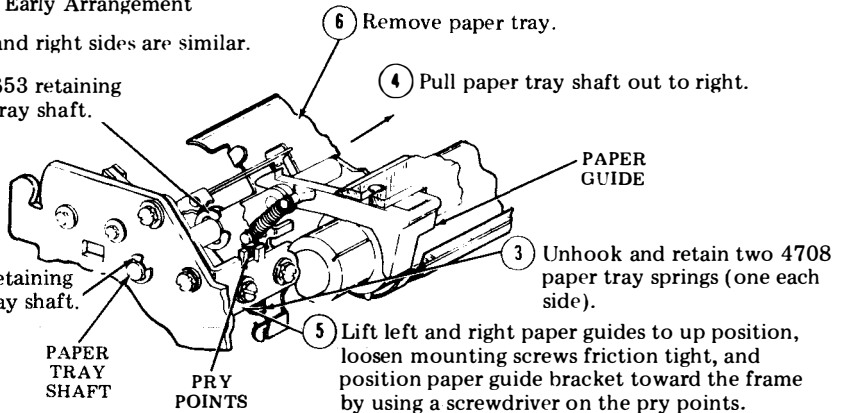
## PAPER TRAY

3.12 To remove the paper tray:

- (a) Sprocket Feed, Early Arrangement

Note 1: Parts on left and right sides are similar.

- ① Remove two 119653 retaining rings from paper tray shaft.



- ② Remove 119652 retaining ring from paper tray shaft.

- ④ Pull paper tray shaft out to right.

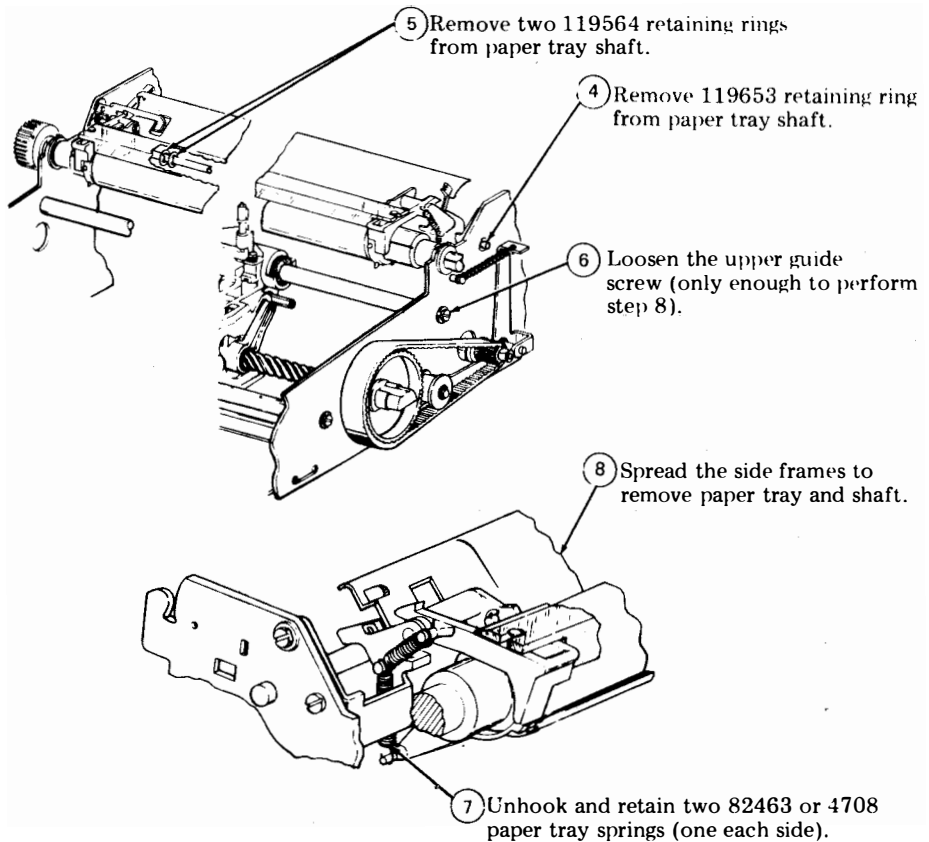
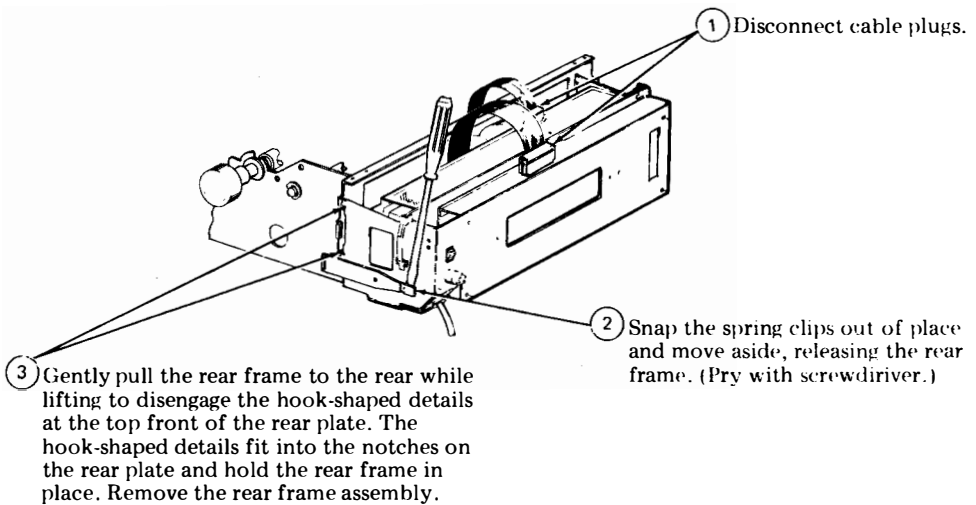
- ③ Unhook and retain two 4708 paper tray springs (one each side).

- ⑤ Lift left and right paper guides to up position, loosen mounting screws friction tight, and position paper guide bracket toward the frame by using a screwdriver on the pry points.

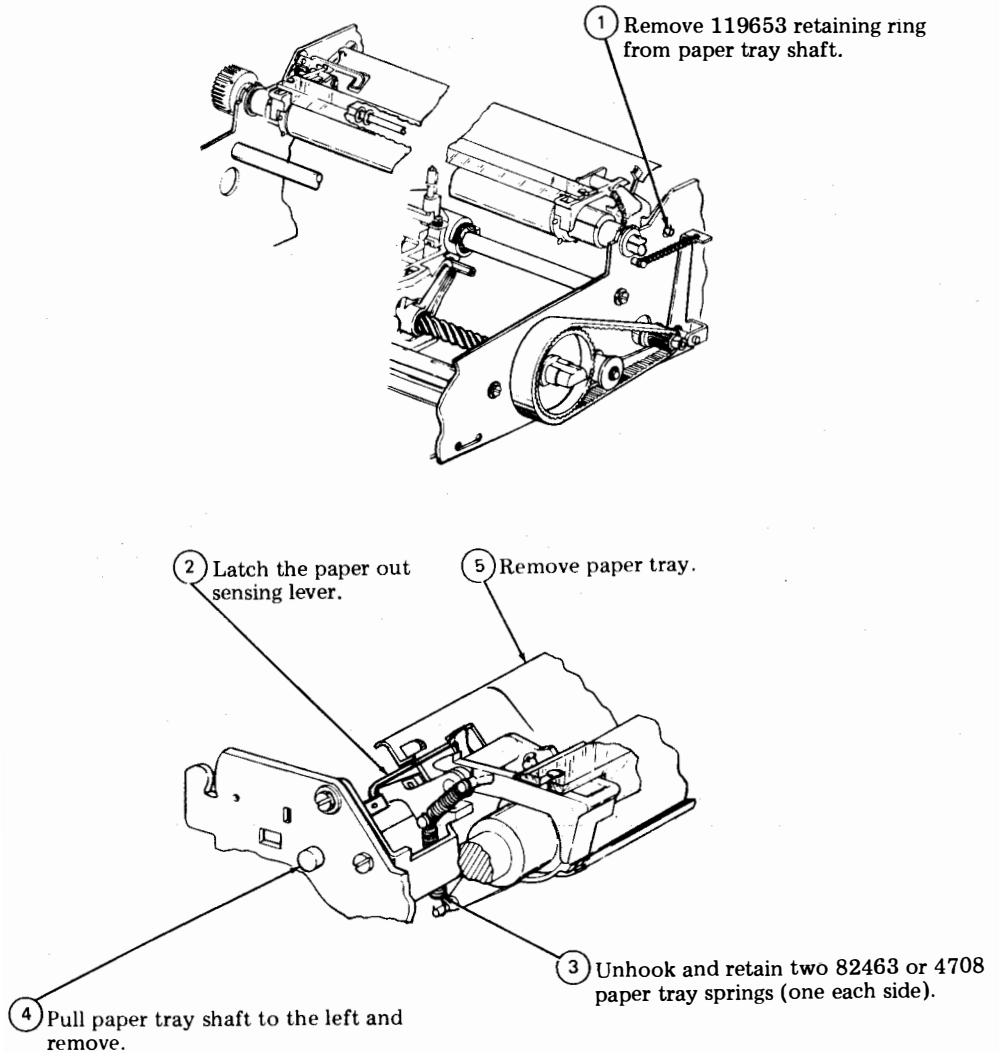
Note 2: In reassembly, LEFT AND RIGHT PAPER GUIDE adjustments must be made.  
(Early Arrangement)



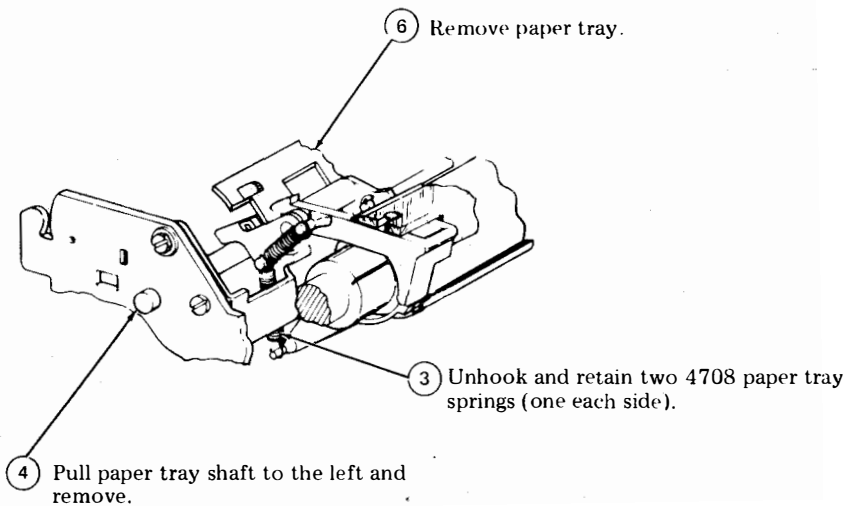
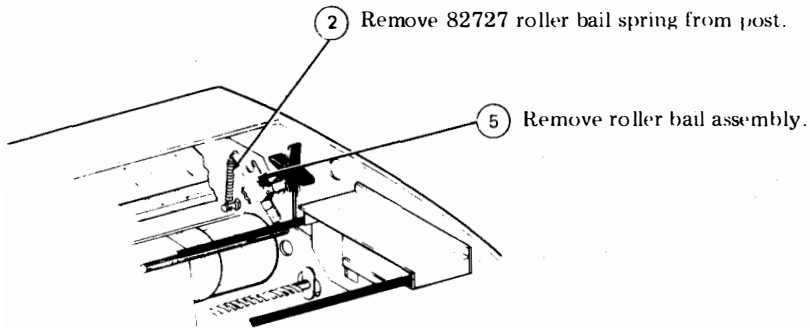
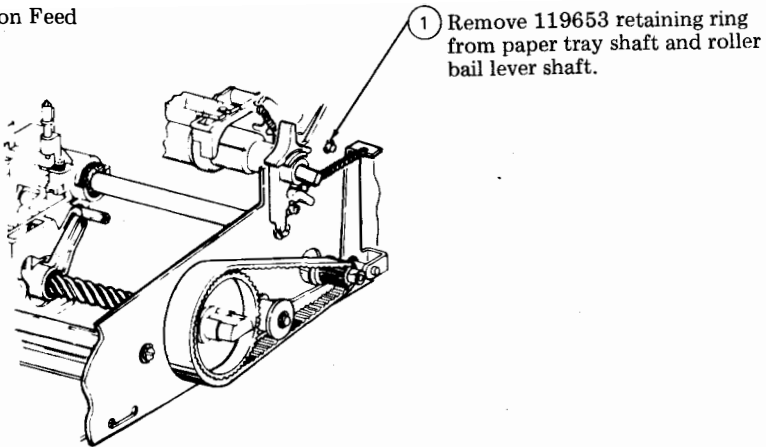
## (b) Sprocket Feed (Intermediate Design) and Friction Feed (Early Design)



(c) Sprocket Feed, Late Design



(d) Friction Feed

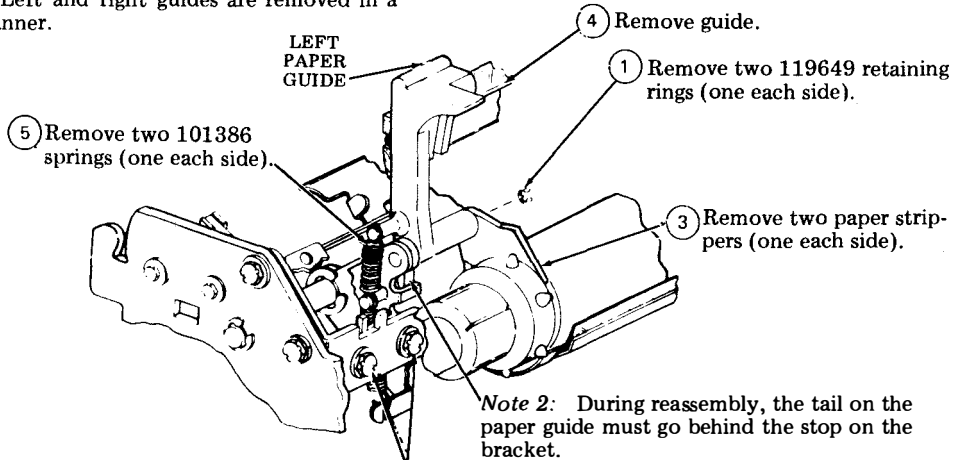


PAPER GUIDES

3.13 To remove the paper guide:

(a) Sprocket Feed, Early Design

*Note 1:* Left and right guides are removed in a similar manner.



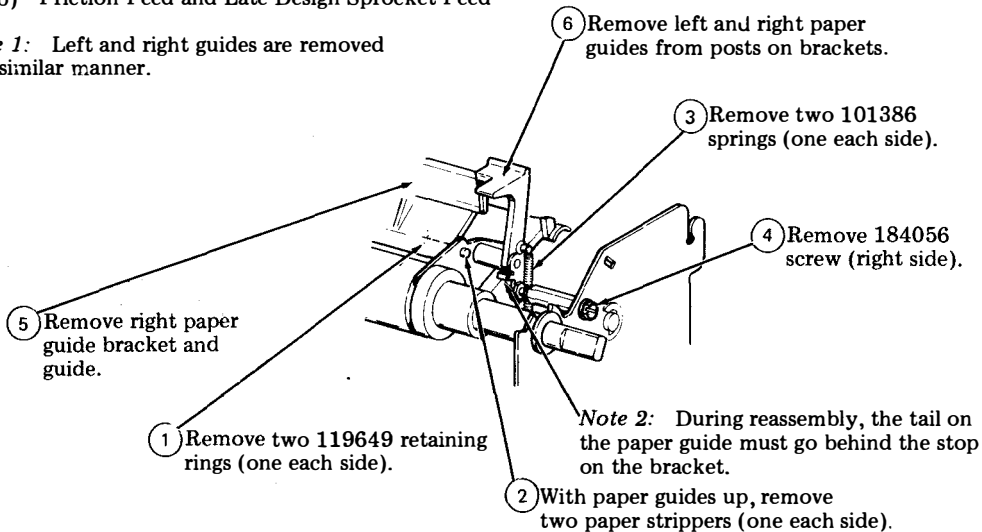
⑥ Remove left and right paper guides from posts on brackets.

*Note 2:* During reassembly, the tail on the paper guide must go behind the stop on the bracket.  
② With paper guides up, loosen mounting screws friction tight; position paper guide bracket toward the frame by using a screwdriver in the pry points.

*Note 3:* In reassembly, LEFT PAPER GUIDE adjustment must be made.

(b) Friction Feed and Late Design Sprocket Feed

*Note 1:* Left and right guides are removed in a similar manner.



*Note 2:* During reassembly, the tail on the paper guide must go behind the stop on the bracket.

② With paper guides up, remove two paper strippers (one each side).

*Note 3:* In reassembly, RIGHT PAPER GUIDE adjustment must be made.