

32 AND 33 TAPE READER
DISASSEMBLY AND REASSEMBLY

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1. GENERAL

1.01 This section is issued to provide disassembly and reassembly instructions for the 32 and 33 tape reader and to present the disassembly and reassembly instructions as a separate section.

1.02 References to "left," "right," "front," "rear," etc , consider the tape reader to be viewed from a position where the feed wheel faces up and the lid latch is to the viewer's right.

1.03 The disassembly procedure given in this section will break the tape reader down into its major assemblies and mechanisms. If further disassembly is required, refer to the appropriate illustrated parts section which shows detailed arrangements of parts. Where it will help in determining their location, the numbers of the parts are given in the instructions.

2. DISASSEMBLY AND REASSEMBLY

CAUTION: THE TAPE READER FEED MAGNET AND TRIP MAGNET OPERATE UNDER HIGH VOLTAGE. PRECAUTIONARY MEASURES SHOULD BE TAKEN WHENEVER POWER TO THE TAPE READER IS TURNED ON. HIGH VOLTAGE FROM THE POWER PACK WILL CONTINUE UNTIL APPROXIMATELY 10 SECONDS AFTER THE TAPE READER HAS BEEN DISCONNECTED.

2.01 General:

(a) When self-tapping screws are used to mount mechanisms onto castings, do not remove the self-tapping screws. Merely loosen them enough to remove the mechanisms unless specifically instructed otherwise.

(b) Retaining rings are made of spring steel and have a tendency to release suddenly. To avoid loss of these rings when removing them, proceed as follows:

(1) Hold retaining ring to prevent its rotation.

(2) Place blade of screwdriver in one of ring's slots and rotate screwdriver to increase diameter.

(3) Ring will come off easily in fingers without flying.

2.02 The tape reader and cover are assembled at the factory.

2.03 The tape reader cover is fastened to the typing unit cover with two TP181244 screws, four TP7002 washers, two TP124177 lockwashers, and two TP3598 nuts. The two covers are assembled with the bottom surface of the covers flush with each other.

(a) The tape reader and typing unit cover assembly is fastened to the typing unit subbase as described in the appropriate cover section.

Note: The left rear corner of the tape reader cover is secured to the tape reader base casting with a screw.

(b) With the tape reader and cover assembly secured in position, there shall be equal clearance on three sides between the

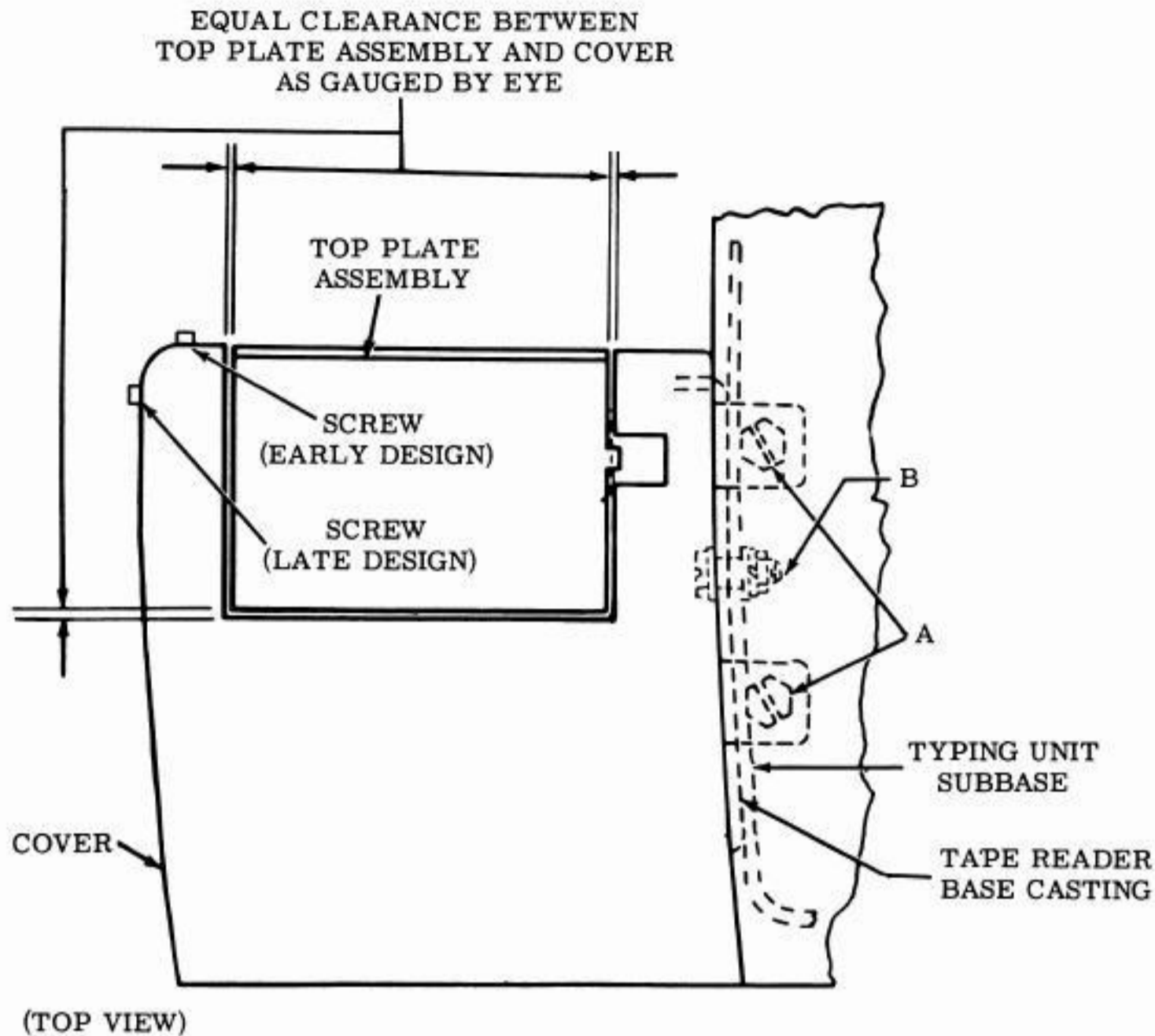


Figure 1 - Tape Reader and Cover

top plate assembly and the tape reader cover. See Figure 1. Refer to the READER MOUNTING BRACKET adjustment in the appropriate tape reader section for adjustment information.

2.04 To remove the tape reader base casting from the typing unit subbase, proceed as follows:

Note: Reference Figure 1.

(a) The tape reader base casting is fastened to the typing unit subbase with two TP180798 mounting screws A and a TP153538 mounting screw, two TP7002 washers, a TP124177 lockwasher, and a

TP3598 nut B. For disassembly, the following procedure must be adhered to:

- (1) Loosen and remove B mounting screw.
- (2) Loosen and remove A mounting screws with the tape reader base casting held firmly against side of typing unit subbase.
- (3) To replace above items reverse the disassembly procedure.

2.05 To remove tape reader cable assembly, proceed as follows:

- (1) On 32 Automatic Send-Receive (ASR) Teletypewriter Sets, remove tape reader plug marked R1; on 33 ASR, remove tape reader plug marked no. 6.

- (2) Remove plug from power pack.
 - (3) Remove two TP182726 push-on terminals from the tabs of the tape reader feed magnet contact assembly.
 - (4) Remove any cable clamps necessary.
 - (5) Remove four TP121551 call control bracket mounting screws.
 - (6) Lift call control unit and remove tape reader cable which is located under the call control unit.
 - (7) Replace call control unit.
 - (8) (a) Early design tape readers: Remove three TP181244 mounting screws, TP7002 washers, and TP124177 lockwashers from tape reader mounting bracket.
(b) Late design tape readers: First, remove TP119651 retaining ring from TP183117 locking screw on certain tape readers so equipped. Then, remove TP183117 locking screw from tape reader mounting bracket.
 - (9) Lift tape reader cable and assembly out.
 - (10) To replace tape reader and cable assembly, reverse procedure used to remove it.
- 2.06 To remove contact block and cable assembly, proceed as follows:
- (1) On 32 Automatic Send-Receive (ASR) Teletypewriter Sets, remove tape reader plug marked R1; on 33 ASR, remove tape reader plug marked no. 6.
 - (2) Remove plug from power pack.
 - (3) Remove two push-on terminals from tabs of the tape reader feed magnet contact assembly.
 - (4) Remove any cable clamps necessary.
 - (5) Remove four TP121551 call control bracket mounting screws.
 - (6) Lift call control unit and remove tape reader cable which is located under the call control unit.
 - (7) Replace call control unit.
- Note: Reference Figure 2.
- (8) Remove two push-on terminals from tabs of the feed magnet coil.
 - (9) Remove the TP3598 nut on the TP183026 contact block shaft and slide shaft until it is out of the body hole of the TP183036 mounting plate.
 - (10) Pull the TP183049 contact block towards the front of the tape reader until the contact block mounting slots are disengaged from the TP183048 top plate bracket mounting slots.
 - (11) Remove the TP183049 contact block and the cable assembly.
 - (12) To replace contact block and cable assembly, reverse procedure used to remove it.
- 2.07 To remove tape reader cable assembly, proceed as follows:
- (1) Remove contact block and cable assembly.
 - (2) Remove the TP182726 push-on terminal from tab of TP183050 common bar.
 - (3) Remove all other terminals with extraction tool no. TP182697.
 - (4) To replace tape reader cable assembly, reverse procedure used to remove it.
- 2.08 To remove sensing pin assembly, proceed as follows:
- Note: Reference Figure 3.
- (1) Remove two TP151152 mounting screws, TP110743 lockwashers, and TP104807 flat washers which mount the TP183035 sensing pin guide.
 - (2) Remove sensing pin assembly.
 - (3) To replace sensing pin assembly, reverse procedure used to remove it.
- 2.09 To remove the TP182139 feed magnet assembly, proceed as follows:
- Note: Reference Figure 2.

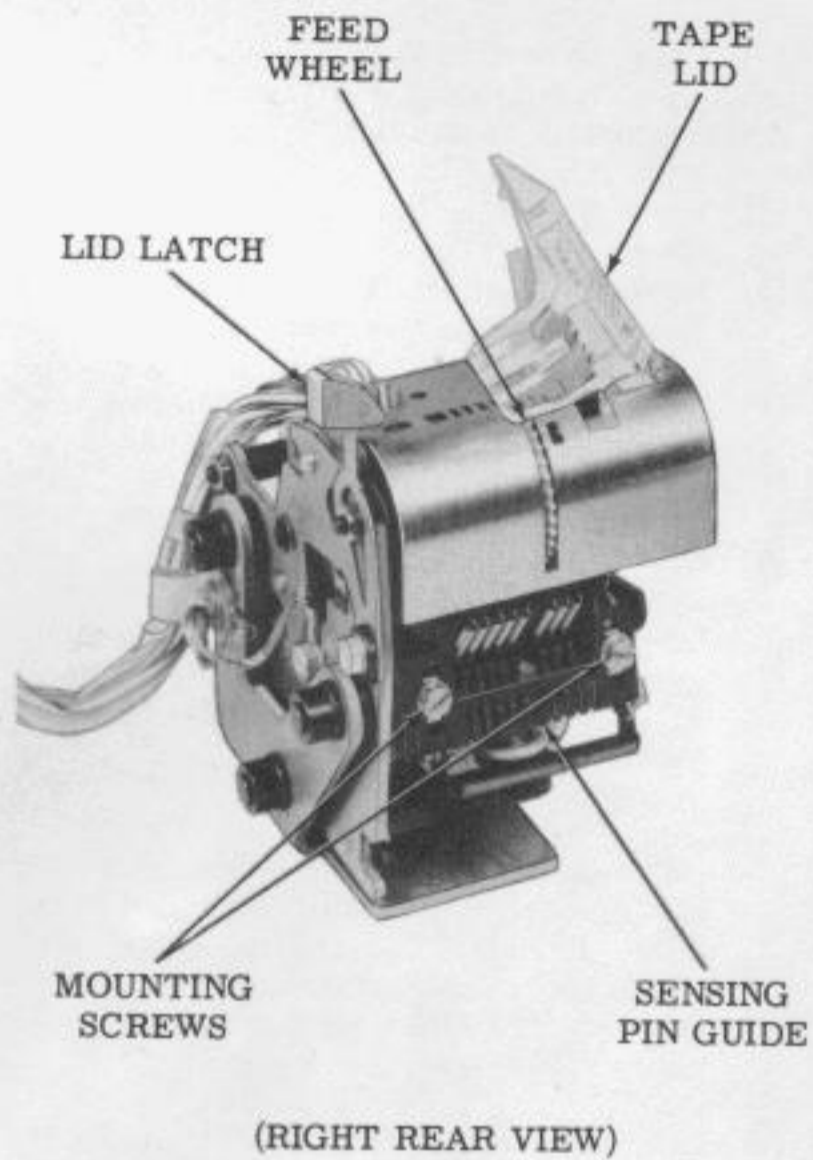
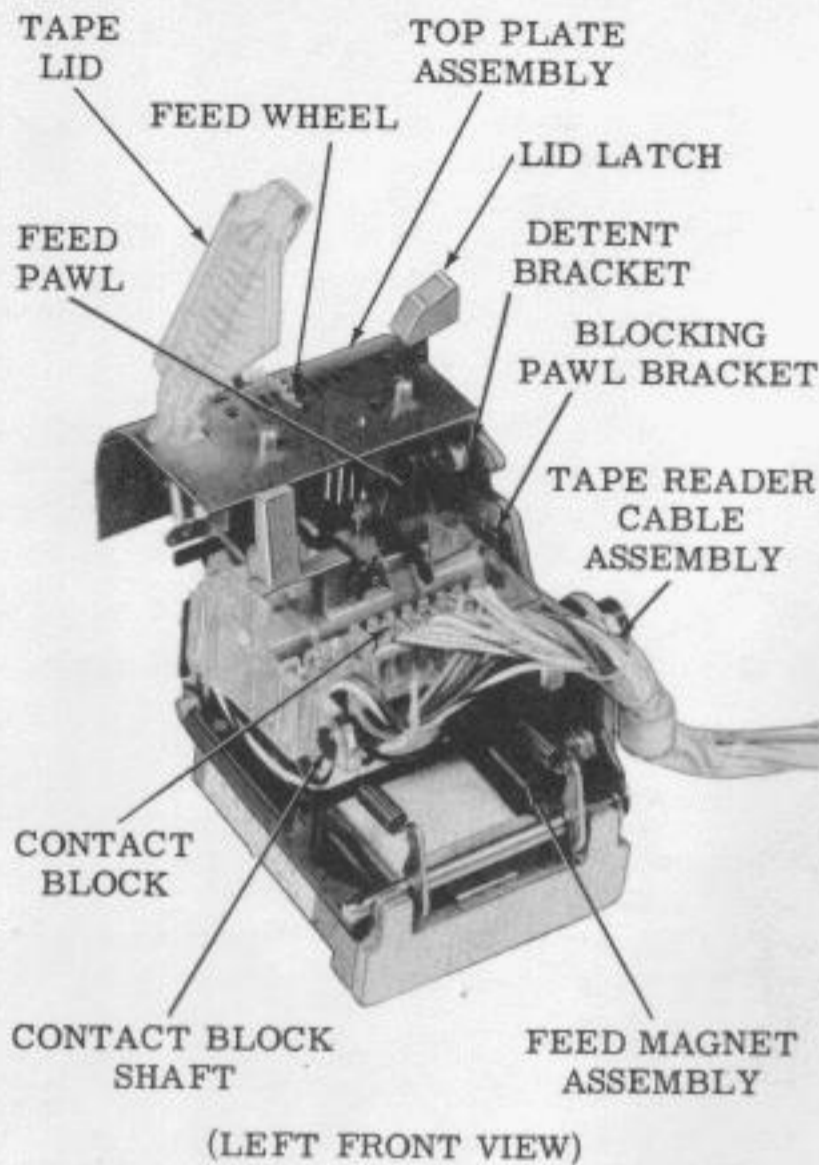


Figure 2 — Tape Reader (Without Cover)

Figure 3 — Tape Reader (Without Cover)

- (1) Remove contact block assembly.
- (2) Remove sensing pin assembly.
- (3) Unhook the TP90517 detent lever spring from the TP183023 detent bracket.
- (4) Unhook the TP114107 blocking pawl spring from the TP183020 blocking pawl bracket.
- (5) Remove one TP151152 magnet bracket mounting screw and TP110743 lock-washer and two TP181241 magnet bracket mounting screws.
- (6) Slide the TP183011 feed pawl stud out of engagement with the TP183016 blocking pawl.

- (7) Remove feed magnet assembly.
 - (8) To replace feed magnet assembly, reverse procedure used to remove it.
- 2.10 To remove feed wheel and top plate assembly, proceed as follows:

Note: Reference Figure 2.

- (1) Remove contact block and cable assembly.
- (2) Remove sensing pin assembly.
- (3) Remove the TP182139 feed magnet assembly.
- (4) Unlatch the TP183032 tape lid.

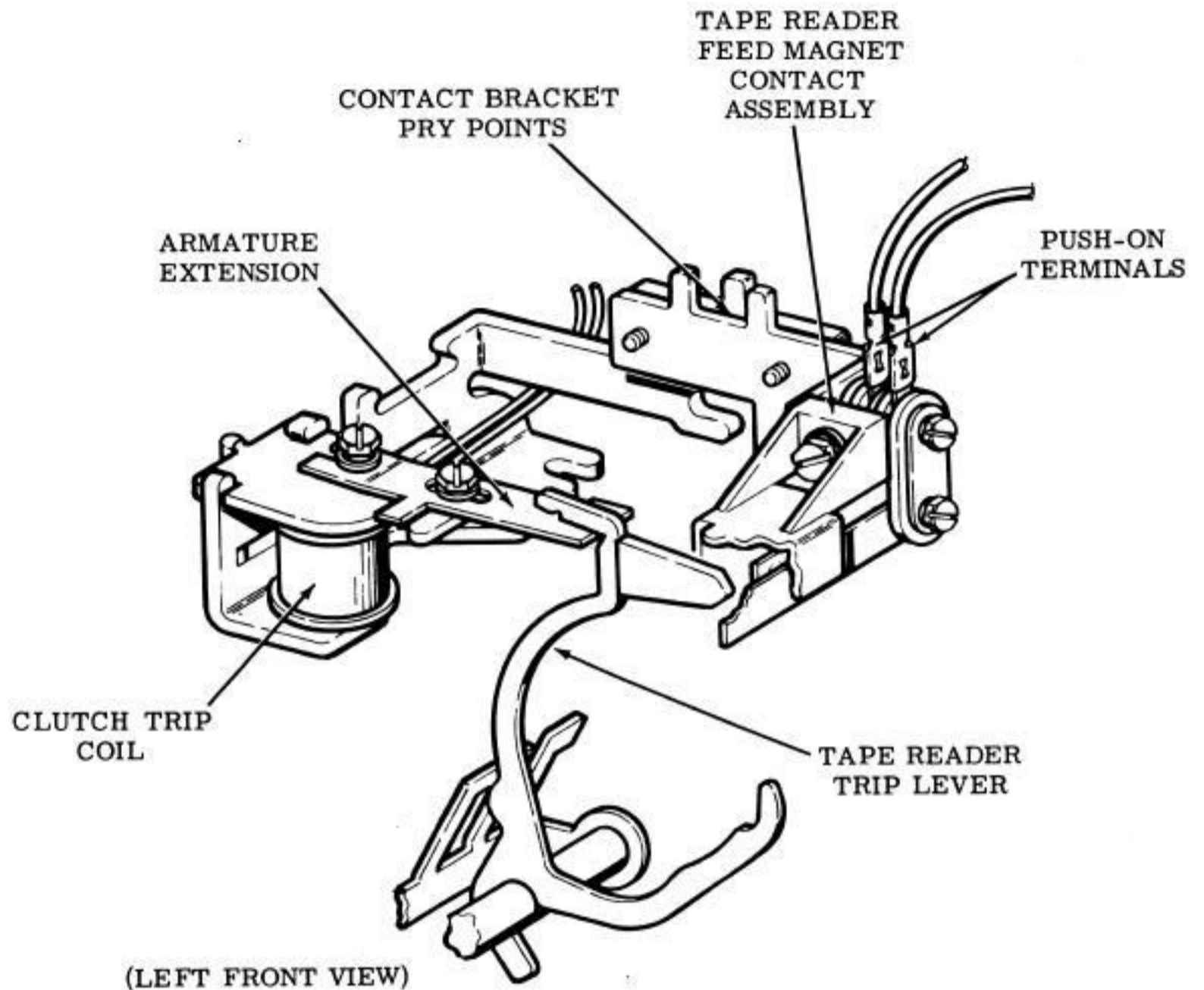


Figure 4 - Clutch Trip Magnet Assembly

- (5) Remove TP181241 detent bracket mounting screw and TP3598 feed wheel shaft nut and TP124177 lockwasher.
 - (6) Remove feed wheel and top plate assembly.
 - (7) To replace feed wheel and top plate assembly, reverse procedure used to remove it.
- 2.11 To remove the tape reader feed magnet contact assembly, proceed as follows:
- Note: Reference Figure 4.
- (1) Remove two push-on TP182726 terminals of the tape reader cable.
 - (2) Remove two TP152893 tape reader feed magnet contact bracket mounting screws, TP104752 flat washers, and TP110743 lockwashers.
 - (3) Remove the tape reader feed magnet contact assembly.
 - (4) To replace the tape reader feed magnet contact assembly, reverse procedure used to remove it.

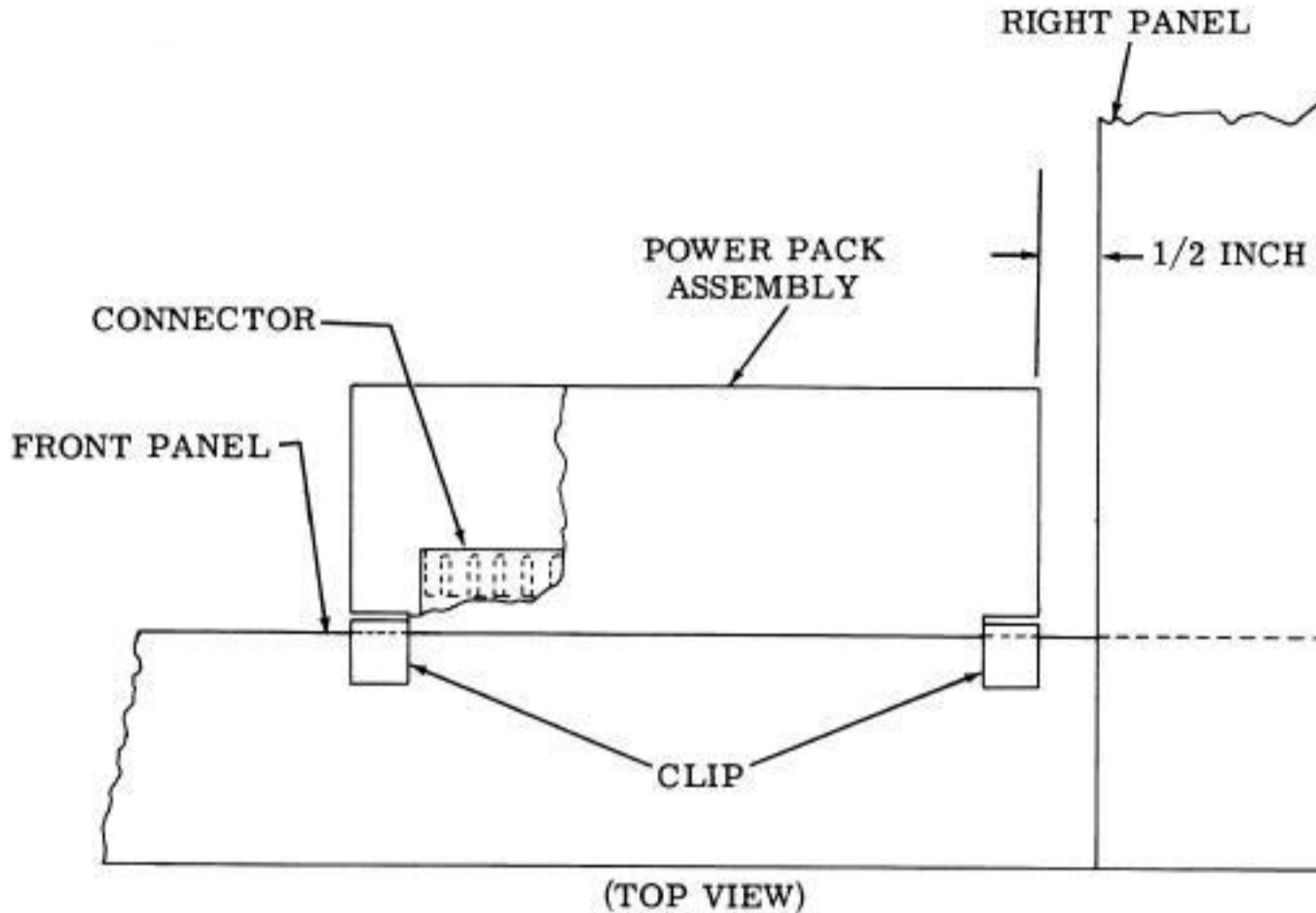


Figure 5 — Power Pack Assembly

2.12 To remove tape reader clutch trip magnet assembly, proceed as follows:

- (1) Remove the tape reader feed magnet contact assembly.
- (2) On 32 Automatic Send-Receive Teletypewriter Sets, remove plug P and, with extractor tool no. TP182697, remove terminals no. 4 and 5.

Note: Also remove terminals no. 1 and 6 on 32-type sets equipped with answer-back.

- (3) On 33 Automatic Send-Receive Teletypewriter Sets, remove plug no. 4 and, with extractor tool no. TP182697, remove terminals no. 11 and 12.

Note: Also remove terminals no. 4 and 5 on 33-type sets equipped with answer-back.

- (4) Loosen two TP151721 distributor disc mounting screws and one TP180798 magnet bracket mounting screw.

- (5) Remove tape reader clutch trip magnet assembly.

- (6) To replace tape reader clutch trip magnet assembly, reverse procedure used to remove it.

2.12 To remove the power pack assembly, proceed as follows:

Note: Reference Figure 5.

- (1) Unsnap the two clips assembled to the power pack assembly from the front panel of the Teletypewriter Set stand.
- (2) Remove the power pack assembly.
- (3) To replace the power pack assembly, reverse the procedure used to remove it.

Note: Position the power pack assembly so it will be spaced approximately 1/2 inch from the right panel of the Teletypewriter Set stand.