## 35 TAPE READER (PARALLEL OUTPUT)

### DISASSEMBLY AND REASSEMBLY

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### 1. GENERAL

1.01 This section is concerned with the disassembly and reassembly of 8-level tape reader units. Refer to related 574-236-series sections for descriptive information, principles of operation, adjustments, and lubrication.

1.02 The instructions following separate the tape reader into its major subassemblies. Further disassembly instructions are not described, but may be undertaken if necessary.

1.03 The disassembly instructions are arranged in a sequence that should be followed when a complete disassembly of the unit into its major subassemblies is required. The removal of a specific subassembly may not require the complete disassembly of the unit, but will normally require removal of associated subassemblies in the same area.

1.04 References made to left or right, up or down, front or rear, etc consider the tape reader to be viewed from a position such that the tape guide plate is to the viewer's right and on top of the tape reader.

1.05 For additional information on the parts and subassemblies referred to in the following text, refer to the appropriate section on parts.

1.06 The tape reader is packed in an individual cardboard carton when shipped from the factory. Unpack the unit by cutting the cardboard carton at sealed edges. Be careful not to damage the unit's finish.

1.07 The cover, top, and tape guide plate(s) may be removed for inspection, some lubrication, minor repair, or minor adjustment of the unit, however, a complete lubrication, readjustment, and/or disassembly will necessitate the disconnecting of the unit from any ac or dc potential and removal of the unit from its base.

1.08 During the disassembly of a subassembly, make a careful note of the position and order of removal of parts to facilitate reassembly. Reverse the disassembly procedures to reassemble. Where additional information is required, reassembly instructions are given.

1.09 Retaining rings are made of spring steel and have a tendency to release suddenly. Loss of these rings can be minimized as follows: Hold the retaining ring to prevent it from rotating. Place a screwdriver blade into one of the ring's slots. Rotate the screwdriver in a direction to increase the diameter of the retaining ring.

1.10 When unsoldering leads from terminals, the thermoplastic tubing over the leads might be damaged from heat. Replace any damaged tubing. During the resoldering operation, avoid using an excessive amount of solder. Be especially careful to prevent solder from falling onto and becoming wedged between moving parts and electrical contact springs.

1.11 After all disassembled parts have been reassembled and any readjustments made, the unit should be checked for proper operation before applying power to it. Manually rotate the clutch mainshaft assembly until the clutch shoe lever stops against its clutch trip lever. Depress the armature extension bail to release the main bail assembly while selecting a code combination. Repeat process and observe operation of the unit.

### 2. REMOVAL FROM BASE

2.01 Remove the three screws and associated washers which secure the reader to the base. Where the reader connector is not rigidly mounted to the base it will be necessary to disconnect the reader connector from its mating plug before lifting the reader from the base. Where the connector is rigidly mounted the reader and base connectors are separated as the reader is lifted from its base.
Figure 1 - Tape Reader
3. DISASSEMBLY AND REASSEMBLY (Figures 1 and 2)

Note: To reassemble, reverse the disassembly instructions as previously stated in Paragraph 1.08.

3.01 Cover Plate

(a) Remove the cover plate by lifting the left end to release detent fasteners and then sliding the plate to the left.

(b) When reassembling the cover plate, refer to related adjustment section.

3.02 Top Plate

(a) Remove top plate by loosening the two top plate mounting screws and lifting the plate upward.

(b) Replace the top plate by guiding each of the two mounting screws into its respective notch on the front and rear plates. Align the tape sensing fingers and tape feed wheel with their respective slots.

(c) When reassembling the top plate, refer to related adjustment section.

3.03 Tape Guide Plate

(a) Remove the tape guide plate by loosening the two tape guide plate mounting screws and sliding the plate upward.

(b) Replace the tape guide plate by guiding each of the two mounting screws into its respective notch on the front and rear plates. Simultaneously guide the tape-cut pin into its notch and locate the tape sensing fingers into their respective slots in the tape guide plate.

(c) When reassembling the tape guide plate, refer to related adjustment section.

3.04 Oil Reservoir

(a) Remove the two mounting screws securing the oil reservoir casting to the right bottom post.

(b) Remove the oil reservoir by rotating the casting clockwise while pulling it down and out.

3.05 Rear Plate Assembly

(a) Remove cable assembly leads from control contact assembly, rear plate, and clutch trip magnet assembly.

(b) Remove two TP112626 nuts with lockwashers from right and left bottom posts at rear plate.

(c) Remove TP156588 clutch mainshaft clamp at rear plate.

(d) Remove TP151630 screw and lockwasher securing rear plate to TP156622 post.

(e) Remove the two TP151630 screws with washers that secure the clutch trip magnet assembly to the rear plate and remove the clutch trip magnet assembly.

(f) Remove the rear plate assembly by pulling away from the remainder of the unit.

3.06 Clutch Mainshaft Assembly

(a) Remove the TP156831 clutch mainshaft clamp and TP156832 plate from the front plate.

(b) Remove the clutch mainshaft assembly.

3.07 Center Plate Assembly

(a) Remove the TP156622 post.

(b) Remove the two TP3591 nuts which secure the center plate to two guide posts.

(c) Remove the TP7603 main bail latch lever spring.

(d) Remove the center plate assembly by pulling away from the remainder of the unit.

4. REPLACEMENT ON BASE

4.01 When replacing the reader on its base observe these procedures.

(a) Where the mating connector for the reader is affixed to the base, make sure the reader and mating base connector are aligned.

(b) Position the reader so that there is .004 to .008 in. backlash between the teeth of the reader gear and its meshing gear. The backlash should be measured at the point of minimum clearance.
Figure 2 - Tape Reader (Cover and Top Plates Removed)