INTRODUCTION

Bulletin 287B is a technical manual that provides general and specific technical information about the Model 35 Automatic Send-Receive Teletypewriter Set (Data Communications) and its component units.

The Bulletin is made up of two volumes. Volume 1 contains descriptions and principles of operation, installation, service and maintenance, lubrication, and disassembly and reassembly. Volume 2 contains adjustments.

Each volume is made up of a group of appropriate independent sections. The sections are complete within themselves; they are separately identified by title and section number and the pages of each section are numbered consecutively, independent of other sections.

The identifying number of a section, a 9-digit number, appears at the top of each page of the section, in the left corner of left-hand pages and the right corner of right-hand pages. The sections are placed in the manual in ascending numerical order.

To locate specific information refer to the table of contents on the following page. Find the name of the involved component in column one and the title of the section in column two. The correct 9-digit section number will then be found in column three. Turn to page one of the section indicated, where the contents of that section will be found (except where a section is small and does not require a listing of contents).

The sections comprising this bulletin are now stocked separately and may be individually ordered if the entire bulletin is not needed.
# TABLE OF CONTENTS

## FILING INSTRUCTIONS

1. The following filing instructions apply to changes sent to the field.
2. Asterisks (*) in the table of contents indicate changes.
3. When the issue of a section changes, replace the old issue with the attached new one.
4. In the case of addendums, turn to the affected section and follow the instructions on the first page of the attached addendum.
5. Replace the old table of contents with this new one.

*Note: For information on motor units, see Bulletin 295B.*

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Title</th>
<th>Section</th>
<th>Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teletypewriter Set (ASR)</td>
<td>Description and Operation</td>
<td>574-202-101TC</td>
<td>1</td>
</tr>
<tr>
<td>Teletypewriter Set (ASR)</td>
<td>Installation</td>
<td>574-202-201TC</td>
<td>1</td>
</tr>
<tr>
<td>Teletypewriter Set (ASR)</td>
<td>Service Maintenance</td>
<td>574-202-301TC</td>
<td>1</td>
</tr>
<tr>
<td>Typing Unit (LP)</td>
<td>Description and Operation</td>
<td>574-220-100TC</td>
<td>4</td>
</tr>
<tr>
<td>Typing Unit (LP)</td>
<td>Lubrication</td>
<td>574-220-701TC</td>
<td>4*</td>
</tr>
<tr>
<td>Typing Unit (LP)</td>
<td>Disassembly and Reassembly</td>
<td>574-220-702TC</td>
<td>1</td>
</tr>
<tr>
<td>Keyboard (LAK)</td>
<td>Description and Operation</td>
<td>574-222-100TC</td>
<td>5</td>
</tr>
<tr>
<td>Keyboard (LAK)</td>
<td>Lubrication</td>
<td>574-222-701TC</td>
<td>4</td>
</tr>
<tr>
<td>Keyboard (LAK)</td>
<td>Disassembly and Reassembly</td>
<td>574-222-702TC</td>
<td>1</td>
</tr>
<tr>
<td>Base, Dual Reader (LCXB)</td>
<td>Description and Operation</td>
<td>574-223-100TC</td>
<td>3</td>
</tr>
<tr>
<td>Base, Dual Reader (LCXB)</td>
<td>Adjustments and Lubrication</td>
<td>See Volume 2</td>
<td></td>
</tr>
<tr>
<td>Electrical Service Unit (LESU)</td>
<td>Description and Operation</td>
<td>574-226-100TC</td>
<td>4</td>
</tr>
<tr>
<td>Cabinet (LAAC)</td>
<td>Description and Operation</td>
<td>574-228-100TC</td>
<td>3</td>
</tr>
<tr>
<td>Cabinet (LAAC)</td>
<td>Lubrication</td>
<td>574-228-701TC</td>
<td>2</td>
</tr>
<tr>
<td>Typing Reperforator (LPR)</td>
<td>Description and Operation</td>
<td>574-233-100TC</td>
<td>5</td>
</tr>
<tr>
<td>Typing Reperforator (LPR)</td>
<td>Lubrication</td>
<td>574-233-701TC</td>
<td>5</td>
</tr>
<tr>
<td>Typing Reperforator (LPR)</td>
<td>Disassembly and Reassembly</td>
<td>574-233-702TC</td>
<td>2</td>
</tr>
<tr>
<td>Tape Reader (LX)</td>
<td>Description and Operation</td>
<td>574-236-100TC</td>
<td>1</td>
</tr>
<tr>
<td>Tape Reader (LX)</td>
<td>Lubrication</td>
<td>574-236-701TC</td>
<td>1</td>
</tr>
<tr>
<td>Tape Reader (LX)</td>
<td>Disassembly and Reassembly</td>
<td>574-236-702TC</td>
<td>1</td>
</tr>
<tr>
<td>Distributor (LD)</td>
<td>Description and Operation</td>
<td>574-237-100TC</td>
<td>2</td>
</tr>
<tr>
<td>Distributor (LD)</td>
<td>Lubrication</td>
<td>574-237-701TC</td>
<td>2</td>
</tr>
</tbody>
</table>
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. GENERAL</strong></td>
<td>1</td>
</tr>
<tr>
<td><strong>2. BASIC UNIT</strong></td>
<td>5</td>
</tr>
<tr>
<td>Carriage return mechanism</td>
<td>23</td>
</tr>
<tr>
<td>Code and print areas</td>
<td>7</td>
</tr>
<tr>
<td>Codebar deflection</td>
<td>8</td>
</tr>
<tr>
<td>Codebar mechanism</td>
<td>7, 15</td>
</tr>
<tr>
<td>Dashpot mechanism</td>
<td>22</td>
</tr>
<tr>
<td>Function reset bail mechanism</td>
<td>20</td>
</tr>
<tr>
<td>Function rocker shaft mechanism</td>
<td>19</td>
</tr>
<tr>
<td>Horizontal positioning drive mechanism</td>
<td>26</td>
</tr>
<tr>
<td>Horizontal positioning mechanism</td>
<td>24, 25</td>
</tr>
<tr>
<td>Line feed area</td>
<td>32</td>
</tr>
<tr>
<td>Line feed mechanism (friction feed)</td>
<td>33</td>
</tr>
<tr>
<td>Line feed mechanism (sprocket feed)</td>
<td>36</td>
</tr>
<tr>
<td>Main shaft area</td>
<td>28</td>
</tr>
<tr>
<td>Main shaft (clutches, gears, etc)</td>
<td>28, 29</td>
</tr>
<tr>
<td>Oscillating mechanism</td>
<td>27</td>
</tr>
<tr>
<td>Paper feed mechanism (friction feed)</td>
<td>9</td>
</tr>
<tr>
<td>Positioning area</td>
<td>11</td>
</tr>
<tr>
<td>Printing area</td>
<td>5</td>
</tr>
<tr>
<td>Printing mechanism</td>
<td>5, 6</td>
</tr>
<tr>
<td>Print suppression mechanism</td>
<td>8</td>
</tr>
<tr>
<td>Ribbon area</td>
<td>9</td>
</tr>
<tr>
<td>Ribbon feed mechanism</td>
<td>10, 12</td>
</tr>
<tr>
<td>Ribbon reverse mechanism</td>
<td>19</td>
</tr>
<tr>
<td>Selector cam clutch assembly</td>
<td>29</td>
</tr>
<tr>
<td>Selector mechanism</td>
<td>15, 16</td>
</tr>
<tr>
<td>Shift mechanism</td>
<td>26</td>
</tr>
<tr>
<td>Shift selector mechanism</td>
<td>31, 32</td>
</tr>
<tr>
<td>Single-double line feed mechanism</td>
<td>34</td>
</tr>
<tr>
<td>Spacing and drive area</td>
<td>21</td>
</tr>
<tr>
<td>Spacing clutch trip cam mechanism</td>
<td>30</td>
</tr>
<tr>
<td>Spacing drum feed mechanism</td>
<td>23</td>
</tr>
<tr>
<td>Spacing drum mechanism</td>
<td>22</td>
</tr>
<tr>
<td>Spacing mechanism</td>
<td>30, 31</td>
</tr>
<tr>
<td>Sprocket feed paper mechanism</td>
<td>36</td>
</tr>
<tr>
<td>Stripper blade mechanism</td>
<td>18</td>
</tr>
<tr>
<td>Stunt box area</td>
<td>16</td>
</tr>
<tr>
<td>Stunt box mechanism</td>
<td>17</td>
</tr>
<tr>
<td>Trip shaft mechanism</td>
<td>29</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>3. VARIABLE FEATURES</strong></td>
<td>37</td>
</tr>
<tr>
<td>Form-out mechanism</td>
<td>42</td>
</tr>
<tr>
<td>Horizontal tabulator area</td>
<td>37</td>
</tr>
<tr>
<td>Horizontal tabulator - bail extension arm</td>
<td>40</td>
</tr>
<tr>
<td>Horizontal tabulator - blocking lever</td>
<td>38</td>
</tr>
<tr>
<td>Horizontal tabulator - intermediate bail</td>
<td>39</td>
</tr>
<tr>
<td>Horizontal tabulator - latch bail</td>
<td>39</td>
</tr>
<tr>
<td>Horizontal tabulator - operating lever</td>
<td>38, 39</td>
</tr>
<tr>
<td>Horizontal tabulator - slide arm</td>
<td>38</td>
</tr>
<tr>
<td>Keyboard lock mechanism</td>
<td>46</td>
</tr>
<tr>
<td>Local backspace mechanism</td>
<td>45</td>
</tr>
<tr>
<td>Low paper and paper-out alarm mechanism (sprocket feed)</td>
<td>46</td>
</tr>
<tr>
<td>Paper jam alarm (sprocket feed)</td>
<td>47</td>
</tr>
<tr>
<td>Paper-out alarm mechanism (friction feed)</td>
<td>45</td>
</tr>
<tr>
<td>Print-nonprint solenoid mechanism</td>
<td>40</td>
</tr>
<tr>
<td>Spacing cut-out transfer bail</td>
<td>40</td>
</tr>
<tr>
<td>Two color ribbon shift mechanism oscillating lever</td>
<td>44</td>
</tr>
<tr>
<td>Two color ribbon shift mechanism ribbon operating mechanism</td>
<td>44</td>
</tr>
<tr>
<td>Typing unit (sprocket feed)</td>
<td>37</td>
</tr>
<tr>
<td>Vertical tabulator and transmitter distributor control mechanism</td>
<td>41</td>
</tr>
<tr>
<td>Vertical tabulator mechanism (for switched network service)</td>
<td>43</td>
</tr>
</tbody>
</table>

### 1. GENERAL

1.01 This section provides lubrication for the 35 typing unit. It is reissued to include lubrication for the paper jam alarm, recent engineering information and to update general format. Since it is an extensive revision, marginal arrows used to indicate changes have been omitted.
1.02 Lubricate the 35 typing unit as directed in this section. The line drawings indicate points to be lubricated and the type and quantity of lubricant to be used. Figures 1 and 2 illustrate the general areas of lubrication on the friction feed unit and Figure 3 shows the lubrication areas on the sprocket feed unit. Lubricate the typing unit prior to placing it in service. Relubricate after a few weeks to make sure that all points have received proper lubrication. Thereafter, lubricate the typing unit at intervals of 1500 hours or six months, whichever occurs first.

1.03 Use KS7470 oil at all locations where the use of oil is indicated. Use KS7471 grease at all locations where the use of grease is indicated.

1.04 Saturate all spring wicks and felt oilers. Thoroughly lubricate the friction surfaces of all moving parts. However, avoid over-lubrication which permits oil or grease to drip or be thrown on other parts. Take special care to prevent any oil or grease from getting between the selector armature and its magnetic pole faces. Keep all electrical contacts free of oil and grease.

1.05 Apply a thin film of grease to the teeth of the range scale knob assembly (knob and gear).

1.06 Apply a thick film of grease to all gears and the spacing trip lever bail cam plate.

1.07 Apply oil to all cams, including the camming surfaces of each clutch disc.

1.08 Grease the clutch shoe lever spring loops and completely saturate the internal mechanism of the clutch assembly with oil.

1.09 Apply a thin film of oil around the outer periphery of the dashpot cup and retainer. Avoid excessive lubrication that will obstruct the dashpot parts.

1.10 The photographs serve as a guide to mechanism locations on the unit. They are also keyed to the paragraph numbers of line drawings of particular mechanisms. Parts in the line drawings are shown in an upright position unless otherwise specified. References to left, right, top, bottom, front, rear, etc, apply to the unit in its normal operating position as viewed from the operator's position in front of the unit.

1.11 The illustration symbols indicate the following lubrication directions.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>O1</td>
<td>Apply 1 drop of oil.</td>
</tr>
<tr>
<td>O2</td>
<td>Apply 2 drops of oil.</td>
</tr>
<tr>
<td>O3</td>
<td>Apply 3 drops of oil, etc.</td>
</tr>
<tr>
<td>G</td>
<td>Apply thin film of grease.</td>
</tr>
<tr>
<td>SAT</td>
<td>Saturate (felt oilers, washers, wicks) with oil.</td>
</tr>
</tbody>
</table>

Note: During each lubrication period, check the following adjustments in Section 574-220-700TC.

1. Printing Carriage Position
2. Printing Hammer Bearing Stud
3. Printing Hammer Stop Bracket (Also see note following this adjustment.)
4. Lower Draw Wire Rope
5. Dashpot Vent Screw (Check Dashpot Transfer Slide for ease of movement.)
Figure 1 - 35 Typing Unit, Friction Feed
2. BASIC UNIT

2.01 Printing Area

(Front View)

2.02 Printing Mechanism

(Top View)

SAT  Felt Washers (2 Washers)  Printing Hammer
SAT  Felt Wick  Operating Ball
G  Engaging Surface  Spring Wick
G  Stop  Secondary Printing Arm
G  Engaging Surface  Print Hammer
G  Engaging Surface  Printing Hammer
SAT  Felt Wick  Stop
SAT  Felt Wick  Printing Hammer
O1  Hooks (Each End) (4 Springs)  Spring Wick
O2  Felt Washer  Operating Bail Latch
O2  Engaging Surfaces (2 Places)  Operating Bail Latch
SECTION 574-220-701 TC

2.03 Printing Mechanism (continued)

(Front View)

2.04 Typebox Carriage Mechanism

(Rear View)
2.05 Code and Print Areas

2.06 Codebar Mechanism

- O1 Hook (Each End)
- O2 Guide Slots (Right, Center, and Left — 9 Bars)

(Spring)

Codebars

Springs

Guides

Page 7
2.07 Codebar Detents

2.08 Print Suppression Mechanism
2.09 Paper Feed Mechanism (Friction Feed)

Objects:
- O1: Hooks (Each End)
- O2: Bearing Surface (Each End)
- G: Teeth (2 Gears)
- O2: Bearings (Each End)
- O1: Bearing Surfaces (Each End) (6 Rollers)
- O2: Bearing Surfaces (Each End)
- O2: Bearing Surfaces (Right and Left)
- O1: Hooks (Each End)
- O2: Bearing Surface
- O2: Bearing Surfaces (Each End)

Components:
- Spring
- Platen Detent Ball
- Paper Finger Shaft
- Platen Gears
- Platen Shaft
- Paper Pressure Roller Shafts (Wipe Off Excess Oil)
- Paper Straightener Shaft
- Paper Straightener Levers
- Spring
- Release Lever
- Release Lever Link

2.10 Ribbon Area

Left Rear View

Page 9
2.11 Ribbon Feed Mechanism

- Hooks (Each End)
- Bearing Surface
- Felt Washer
- Engaging Surface

- Ribbon Feed Lever
- Ribbon Spool Toggle
- Ribbon Roller Shaft
- Ribbon Spool Shaft
- Ribbon Ratchet Wheel Spring
- Ribbon Detent Lever

(Left Side View)

- Felt Washers (2 Washers)
- Teeth
- Engaging Surface
- Bearing Surfaces

- Ribbon Feed Lever Bail
- Ribbon Reverse Lever
- Ribbon Ratchet Wheel
- Ribbon Detent Lever Shaft
- Ratchet Feed Lever Shaft

(Rear View)

2.12 Ribbon Feed Mechanism (continued)

- Bearing Surface
- Engaging Surface
- Teeth

- Ribbon Reverse Lever
- Ribbon Reverse Lever
- Ribbon Reverse Lever
- Ribbon Reverse Spur Gear

(Left Side View)
2.13 Positioning Area
2.14 Ribbon Feed Mechanism (continued)

(Right Side View)

(Rear View)

.15 Ribbon Feed Mechanism (continued)

(Left Side View)
2.16 Vertical Positioning Mechanism

- O2 Bearing Surface
- SAT Felt Washer
- O1 Engaging Surfaces (4 Places)
- SAT Engaging Surface
- O2 Bearing Surface
- O2 Camming Surface
- SAT Felt Washers (2 Washers)
- O2 Bearing Surface (2 Places)
- O1 Hooks (Each End)
- SAT Felt Washers (2 Washers)
- O2 Ball Bearing
- SAT Felt Wick
- O1 Hooks (Each End)
- O2 Bearing Surface
- SAT Felt Washer (Not Illustrated)

*Ribbon Drive Link*
*Vertical Positioning Lever*
*Vertical Positioning Locklever*
*Spring*
*Vertical Positioning Lever*
*Ribbon Drive Surface*
*Main Side Lever Follower Arm*
*Vertical Positioning Lever*
*Spring*
*Vertical Positioning Lever*
*Main Rocker Shaft*
*Spring Wick*
*Spring*
*Rocker Shaft Bracket*
*Rocker Shaft Bracket*
2.17 Vertical Positioning Mechanism (continued)

SAT  Felt Washer  Vertical Positioning Lever

O2  Bearing Surface  Ribbon Drive Link
O2  Engaging Surface  Vertical Positioning Lever

O1  Engaging Surface  Vertical Positioning Locklever

O1  Hooks (Each End)  Spring

O2  Bearing Surfaces (2 Places)  Vertical Positioning Lever

SAT  Felt Washer (2 Washers)  Main Side Lever Follower Arm

O2  Bearing Surface  Ribbon Drive Link

O1  Hooks (Each End)  Spring

O2  Bearing Surface  Codebar Clutch Trip Shaft Operating Lever

O2  Engaging Surface  Main Side Lever Follower Arm

SAT  Felt Washer  Codebar Clutch Trip Shaft Operating Lever Extension

SAT  Felt Washers (2 Washers)  Vertical Positioning Lever

O1  Hooks (Each End) (2 Springs)  Spring

SAT  Felt Wick  Spring Wick

O2  Bearing Surface  Rocker Shaft Bracket

O2  Ball Bearing  Main Rocker Shaft

(Right Side View)
2.18 Codebar Mechanism (continued)

- Guide Slots
- Engaging Surface
- Roller Bearings (4 Rollers)
- Hooks (Each End) (7 Springs)
- Bearing Guide Slots (7 Slots)
- Bearing Surfaces (2 Places)
- Bearing Guide Slots (7 Slots)
- Bearing Guide Slots (8 Slots)
- Shift Levers
- Shift and Transfer Levers
- Transfer Lever Guide Bearing
- Shift Lever Link Rollers
- Springs
- Intermediate Arms and Transfer Levers
- Shift Levers
- Intermediate Arm Guide Bearing
- Shift Lever Link
- Shift Lever Drive Arm Shaft

2.19 Selector Mechanism

- Bearing Guide Slots (7 Slots)
- Felt Wick
- Engaging Surfaces (7 Levers)
- Guide Slots
- Wick
- Guide Slots
- Hooks (Each End) (14 Springs)
- Oil Hole
- Felt Wick
- Felt Washer
- Fill Cup (Avoid Air Lock)
- Bearing Guide Slots (9 Slots)
- Pushlever Guide Bearing
- Selector Wick
- Pushlevers
- Marking Locklever
- Lubricator Wick
- Selector and Pushlevers
- Springs
- Lubricator Reservoir
- Selector Lever Guide Bearing

(Right Side View)
2.20 Selector Mechanism (continued)

(Right Side View)

G Teeth (2 Places)

O2 Slides (2 Places)

O2 Bearing Surface

O1 Hooks (Each End)

Rangefinder Knob and Rack

Rangefinder Mounting Rack

Clutch Trip Lever

Spring

2.21 Stunt Box Area

(Rear View)

Page 16
2.22 Stunt Box Mechanism

Guide Slots (11 Levers)  Function Levers
Guide Slots (11 Pawls)  Function Pawls
Each Felt Wick  Function Pawl Springs
Guide Slots (11 Levers)  Function Bars
Hooks (Each End) (33 Springs)  Spring
Engaging Surfaces (Front and Rear) (11 Bars)  Function Bars
Guide and Engaging Surfaces  Line Feed Slide Arm
Hooks (Each End)  Spring
Bearing Surface  Keyboard Lock-lever
Engaging Surface (11 Levers)  Function Levers

(Left Side View)
2.23 Stripper Blade Mechanism

(Rear View)

- Engaging Surface
- Guide Surfaces (2 Places)
- Guide Surfaces (Each End)
- Engaging Surfaces (2 Places)
- Engaging Surface

(Rear View)

- Bearing Surfaces (2 Bearings)
- Engaging Surfaces (Each Arm)
- Engaging Surfaces (2 Arms)
- Felt Washers (4 Washers)
- Guide Slots (Each End)
- Camming Surfaces (2 Cams)
- Felt Washer

(Line Feed)
- Stripper Slide
- Stripper Slide
- Stripper Blade
- Stripper Blade
- Stripper Blade

(Line Feed)
- Cam Arms
- Contact Arm
- Cam Arms
- Driving Cam
- Stripper Blade
- Driving Cam
- Stripper Blade
- Driving Arm
2.24 Ribbon Reverse Mechanism

(Right Rear View)

2.25 Function Rocker Shaft Mechanism

(Left Rear View)
2.26 Function Reset Bail Mechanism

Note: See 2.38 for photograph of the location of this mechanism.
2.27  Spacing and Drive Area

(Bottom Front View)
2.28 Spacing Drum Mechanism

- Engaging Surface (2 Pawls)
- Cable Grooves
- Teeth
- SAT Oilers (Inner and Outer Bearing Surface)
- Engaging Surfaces (2 Places)
- Bearing Surface
- Guide Surface
- Retainer
- Hook (Each End) (3 Springs)
- Bearing Surfaces (2 Eccentrics)
- Bearing Surfaces (2 Places)
- SAT Felt Wick
- Roller Bearings (2 Rollers)

2.29 Dashpot Mechanism

- Cups (Outer Periphery)
- Bearing Surface
- Hooks (Each End)
- Spring

Page 22
2.30 Carriage Return Mechanism

SAT Felt Oilier Printing Track Guide
O2 Between Layers Carriage Return Spring
G Cam Disc Surface Margin Indicator Cam Disc

Bearing (Outer and Inner End) Carriage Return Spring Drum Shaft
SAT Felt Washer Carriage Return Spring Drum Shaft

O1 Hooks (Each End) Spring
SAT Felt Wick Spring Wick
O2 Bearing Surface Tension Pulley Bail

SAT Felt Oilier Main Ball
O2 Bearing Surface Pulley
O2 Cable Grooves (2 Places) Carriage Return Spring Drum

(Left Front View)

2.31 Spacing Drum Feed Mechanism

O2 Engaging Surfaces (2 Places) Automatic Carriage Return Bellcrank
O2 Bearing Surface Automatic Carriage Return Bellcrank
O1 Hooks (Each End) Spring
O2 Engaging Surface Spacing Drum Feed Pawl Release Link
O2 Bearing Surfaces (2 Places) Spacing Drum Feed Pawl Release Link
O2 Hooks (Each End) Spring
O1

(Front View)
2.32 Track Guide Mechanism

(Right Front View)

2.33 Horizontal Positioning Mechanism

(Right Front View)

(Left Front View)
2.34 Horizontal Positioning Mechanism (continued)

(Top View)

Hooks (Each End)  Spring
Felt Washer  Codebar Bellcrank
Engaging Surfaces  Horizontal Motion
(3 Slides)  Stop Slides

(Front View)

Engaging Surfaces  Shift Shock
(2 Slides)  Absorber Slides
Hooks (Each End)  Shock Absorber
Spring
Engaging Surfaces  Decelerating
(2 Slides)  Slides
Bearing Surfaces  Shift Slide
(4 Places)  Driver Links
Felt Washers  Shift Slide
(5 Washers)  Drive Links

(Front View)

Guiding Surface  Horizontal
Positioning  Locklever
Locklever
Bearing Surface  Horizontal Lock-
lever Arm Roller
Felt Wick  Spring Wick
Hooks (Each End)  Spring
Felt Washer  Horizontal
Positioning  Locklever
2.35 Horizontal Positioning Drive Mechanism

(Front View)

2.36 Shift Mechanism

(Right Side View)

(Left Side View)
Oscillating Mechanism

SAT Felt Washers Pulleys
O2 Pivot Point Oscillating Rail Slide

O2 Bearing Surface Oscillating Rail Shift Link
(3 Places)

O2 Bearing Surface Oscillating Rail
SAT Felt Washer Oscillating Rail Guide Arm
(3 Washers)

SAT Felt Washer Oscillating Rail Guide Arm
(3 Washers)

(Right Front View)
2.38 Main Shaft Area

2.39 Main Shaft (Clutches, Gears, etc)

- Felt Washer
- Internal Mechanism and Felt Wicks (3 Clutches)
- Teeth (4 Gears)
- Bearing Surfaces (2 Clutches)
- Ball Bearing
- Camming Surfaces (2 Discs)
- Bearing Surface
- Drive Link
- Clutch Assembly
- Main Shaft Gears
- Clutch Sleeves
- Main Shaft Bearing
- Clutch Discs
- Drive Link Bearing

(Bottom View)
2.40 Main Shaft (Clutches, Gears, etc) (continued)

- Felt Washers (2 Washers)
- Eccentric Follower Arm Bearing
- Internal Mechanism and Felt Wicks (3 Clutches)
- Clutch Assembly
- Bearing Surfaces (2 Cams)
- Eccentric Follower Arm Cams
- Ball Bearing
- Main Shaft Bearing
- Bearing Surfaces (3 Clutches)
- Clutch Sleeve
- Camming Surfaces (4 Discs)
- Clutch Disc
- Camming Surface
- Cam

2.41 Selector Cam Clutch Assembly

- Felt Washer
- Selector Cam Assembly
- Camming Surface
- Clutch Disc
- Internal Mechanism
- Selector Clutch
- Camming Surfaces (Each Cam)
- Selector Cam

2.42 Trip Shaft Mechanism

- Engaging Surfaces (5 Levers)
- Clutch Trip Lever
- Engaging Surfaces (5 Levers)
- Clutch Latch-lever
- Hooks (Each End) (9 Springs)
- Springs
- Felt Washer and Wick
- Cam Follower Arm Roller
- Bearing Surface
- Cam Follower Arm
- Felt Washer (16 Washers)
- Clutch Trip Lever Shaft
2.43 Spacing Clutch Trip Cam Mechanism

(Right Side View)

2.44 Spacing Mechanism

(Left Side View)

(Bottom View)
2.45 Spacing Mechanism (continued)

(Right Side View)

2.46 Shift Selector Mechanism

(Bottom Left View)
2.47 Shift Selector Mechanism (continued)

- SAT Felt Wick Spring
- O1 Hooks (Each End) Spring
- SAT Felt Washers (2 Washers) Shift Selector Arm Bell-crank

(Rear View)

- SAT Engaging Surfaces (3 Places) Shift Pawl
- O2 Guide Surface Shift Pawl Link
- O2 Pivot (2 Places) Shift Pawl
- SAT Felt Washer Shift Pawl

(Rear View)

2.48 Line Feed Area

(Rear View)
2.49 Line Feed Mechanism (Friction Feed)

(Right Rear View)
2.50 Single-Double Line Feed Mechanism

- Pivot
- Single-Double Line Feed Lever
- Engaging Surface
- Operating Arm
- Guide Surfaces (2 Places)
- Operating Arm
- Felt Washer
- Operating Arm
- Engaging Surfaces (4 Surfaces)
- Stripper Bail
- Coils
- Stripper Bail
- Torsion Spring
- Hooks (Each End)
- Spring
- Hooks (Each End)
- Spring

(Left Side View)
Figure 3 - 35 Typing Unit (Sprocket Feed)
2.51 Line Feed Mechanism (Sprocket Feed)

(Right Side View)

2.52 Sprocket Feed Paper Mechanism

(Right Side View)
3. VARIABLE FEATURES

3.01 Typing Unit (Sprocket Feed)

3.02 Horizontal Tabulator Area

(Left Front View)

(Bottom View)
SECTION 574-220-701TC

3.03 Horizontal Tabulator — Blocking Lever

01 Hooks (Each End) (2 Springs) Springs
02 Engaging Surface Tabulator Stops
02 Engaging Surface Tabulator Pawl

(Front View)

3.04 Horizontal Tabulator — Slide Arm

02 Bearing Surface Operating Lever Extension Link
02 Hook (Each End) Spring
02 Engaging Surfaces (2 Places) Operating Lever Extension Link

(Bottom View)

3.05 Horizontal Tabulator — Operating Lever

02 Bearing Surfaces (2 Places) Operating Lever
02 Contacting Surface With Adjusting Plate Operating Lever
02 Bearing Surface Trip Lever Arm Latch Bail

(Left Bottom View)
3.06 Horizontal Tabulator — Latch Bail

![Left Side View](horz_tab_latch_bail_left_view)

- O1
- Hooks (Each End)
- Latch Bail Spring

3.07 Horizontal Tabulator — Operating Lever (continued)

![Right Side View](horz_tab_op_lever_right_view)

- O2
- Guide Surface
- Operating Lever
- Contact With Slide Arm
- Operating Lever
- Hooks (Each End)
- Slide Arm Spring
- Bearing Surface
- Operating Lever
- Felt Wick
- Operating Lever
- Camming Surface
- Operating Lever
- Contact Surface
- Operating Lever
- Felt Washers
- Stripper Bail Shaft
- Camming Surface
- Spacing Clutch Restoring Cam

3.08 Horizontal Tabulator — Intermediate Bail

![Left Side View](horz_tab_inter_bail_left_view)

- O1
- Contact Surface
- Intermediate Bail
- Trip Lever Arm
- Contact Surface
- Spacing Trip Lever Arm
- Contact Surface
- Intermediate Bail
- Spacing Trip Lever
- Felt Washer
- Trip Lever Arm Shaft
3.09 Horizontal Tabulator — Bail Extension Arm

(Bottom View)

O2 Bearing Surface Spacing Cut-Out Transfer Bail
O2 Contact Surface Spacing Cut-Out Transfer Bail
SAT Felt Washers (2 Washers) Transfer Bail Stud

3.10 Spacing Cut-Out Transfer Bail

(Right Side View)

O1 Hooks (Each End) Spring
O2 Bearing Surface Bail Extension Arm
O2 Contact Surface Bail Extension Arm

3.11 Print-Nonprint Solenoid Mechanism

(Left Side View)

O2 Pivot Point Solenoid Plunger
O2 Pivot Point Extension Link
O2 Pivot Point Blocking Bail
O2 Blocking Surface Blocking Bail Extension
O2 Pivot Point Trip Arm

Note: Do not oil the cylindrical surface or pole face of solenoid plunger.
3.12 Vertical Tabulator and Transmitter Distributor Control Mechanism

- Gear
- Form Start
- Gear
- Idler
- Hooks (Each End)
- Spring
- Bearing
- Handwheel
- Hooks (Each End)
- Spring
- Pivot
- Adjustable Arm
- Hooks (Each End) (2 Springs)
- Springs
- (Left Side View)
- Slides (2)
- Form-Out and Vertical Tab
- Bearing Surface
- Adjustable Arm and Blocking
- Pivot
- Blocking Lever

Page 41
3.13 Form-Out Mechanism

**O2** Engaging Surface
**Form-Out Ball**

**O2** Pivot
**Form-Out Ball**

**O1** Loop
**Torsion Spring**

**O2** Pivot
**Form-Out Lever**

**O2** Pivot (2 Places)
**Form-Out Solenoid Lever**

**Note:** Do not oil plunger.

**O2** Engaging Surface
**Solenoid Lever**

**O1** Hooks (Each End)
**Spring**

**O2** Guide Surface (2 Places)
**Nonrepeat Slide**

(Left Frame Viewed From Right Rear)

Page 42
3.14 Vertical Tabulator Mechanism (For Switch Network Service)

(IRIS 4, SECTION 574-220-701TC)

(Left Side View)

(G) Gear
(O1) Hooks (Each End)
(O1) Hooks (Each End)
(O2) Bearing
(G) Gear
(O2) Pivot
(O1) Hooks (Each End) (2 Springs)
(O2) Slides (2)
(O1) Bearing Surface
(O2) Pivot
(Idler) Spring
(Spring) Spring
(Handwheel) Form Start
(Adjustable Arm) Adjustable Arm
(Springs) Springs
(Form-Out and Vertical Tabulation) Form-Out and Vertical Tabulation
(Adjustable Arm and Blocking Lever) Adjustable Arm and Blocking Lever
(Blocking Lever) Blocking Lever
3.15 Two Color Ribbon Shift Mechanism — Oscillating Lever

Note: Photograph reference shows general area of this mechanism and not the actual mechanism.

3.16 Two Color Ribbon Shift Mechanism — Ribbon Operating Mechanism

Note: Photograph reference shows general area of this and not the actual mechanism.
3.17 Local Backspace Mechanism

(Front View)

3.18 Paper-Out Alarm Mechanism (Friction Feed)

(Right Side View)

(Rear View)

Note: See Figure 2 for location of this mechanism.
3.19 Low Paper and Paper-Out Alarm Mechanism (Sprocket Feed)

3.20 Keyboard Lock Mechanism

Note: Photograph reference shows general area of this mechanism and not the actual mechanism.

(Right Side View)
3.21 Paper Jam Alarm (Sprocket Feed)

(Right Side View)

- O1 Point Contact (2 Places)
- O1 Bearing Surface
- O1 Pivots (Each End)
- O1 Hooks (Each End)

Switch Buttons
Operating Lever
Bail
Spring