INSTRUCTIONS FOR INSTALLING THE 177015 MODIFICATION KIT TO ADD THE 177010 SELECTOR MAGNET DRIVER TO MODEL 15 OR MODEL 19 SET

Note: Information on the 177010 selector magnet driver and other selector magnet driver information, formerly in this specification, is to be found in Teletype Technical Manual 293B.

1. GENERAL

1.01 The 177015 modification kit permits mounting of the 177010 selector magnet driver on a Model 15 or Model 19 Set.

1.02 The driver should be mounted in the position provided for the line relay on the Model 15 Bases (BB). Mounting hardware is provided with the driver.

1.03 The 177015 modification kit consists of:

<table>
<thead>
<tr>
<th>Qty</th>
<th>Part No.</th>
<th>Description</th>
<th>Qty</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>176393</td>
<td>Cable</td>
<td>1</td>
<td>179260</td>
<td>Cover</td>
</tr>
</tbody>
</table>

1.04 For parts ordering information other than the parts in the kit, refer to Teletype Parts Bulletin 1037B.

1.05 When the Model 15 Base does not have a line relay mounting assembly, the following additional parts, as well as the 177015 modification kit, are required:

<table>
<thead>
<tr>
<th>Qty</th>
<th>Part No.</th>
<th>Description</th>
<th>Qty</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2191</td>
<td>Lockwasher</td>
<td>2</td>
<td>151442</td>
<td>Screw</td>
</tr>
<tr>
<td>1</td>
<td>2669</td>
<td>Lockwasher</td>
<td>1</td>
<td>153442</td>
<td>Screw</td>
</tr>
<tr>
<td>1</td>
<td>74422</td>
<td>Bracket</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. INSTALLATION

Note: Because of variations in wiring, it is not possible to give specific instructions for each equipment. The following instructions apply to typical units. Wiring of individual units should be compared to Figure 1, and necessary modifications in the installation procedure should then be made.

2.01 Preparation of Model 15 BB Base

(a) Bases Equipped with 255A (RY30) Line Relay Mounting
(1) Remove all wiring from terminals 61 through 66 on the upper side of the signal terminal block (Figure 1). These wires all run to line relay mounting.

(2) Cut and tape wire that connects to terminal 64 on the lower side of the signal terminal block. Cut and tape black wire that runs between the 0.25 MF capacitor and the resistor block on line relay mounting. These two wires both connect to the 0.25 MF capacitor which is not used with driver. This capacitor may be left in place since its removal is inconvenient. Following instructions assume that it is left in place.

(3) Disconnect and tape wire that runs between slip-connection terminal 52 and terminal 62 on lower side of the signal terminal block. Leave other wire on terminal 62. Disconnect and tape wire that connects to terminal 63 on lower side of signal terminal block.

(4) Remove 74395 relay guard or 107213 bracket, and its two 6810 mounting screws, 2669 lockwashers, and 3438 flat washers from 74422 bracket. Discard removed parts.

(5) Remove and discard two 74014 mounting screws, 2669 lockwashers, and 112626 nuts that hold relay mounting plate to the 74422 bracket.

(b) Bases Not Equipped with Line Relay Mounting

(1) Disconnect and tape orange wire connected to terminal 62 of signal terminal block. Move black wire from terminal 61 to terminal 62. Other wire (white) should be left on terminal 61. Remove green wire from terminal 66 and connect it to terminal 65.

(2) Mount 74422 bracket on the base using 153442 screw, 2669 lockwasher, and two 151442 screws, and 2191 lockwashers (see 2.01 above). See Figure 1 for location of bracket and Figure 2 for location of mounting hardware.

2.02 Mounting on Base

(a) Remove two 90789 flat washers and 151427 nut plates from 153841 mounting screws on magnet driver (Figure 3). Remove 153841 screws with 2191 lockwashers and 7002 flat washers and slip them through threaded holes in 74422 bracket until they protrude a small amount on the other side (Figure 2). Place magnet driver on protruding screws, as shown in Figure 2. Install one threaded 151427 clamp plate on mounting screw. Install other plate on other screw. Tighten screws.

(b) The 179260 cover (part of 177015 modification kit) is furnished flat, but is scored for bending. Place cover over edge of a surface such as a table top and form two end flaps (See Figure 2). Remove 152426 nut from
upper stud, but leave 131228 insulating washer in place. Place cover as shown in Figure 2 with tab over stud. Replace nut and tighten. Tuck flaps inside chassis' ends.

(c) Connect leads on 178887 signal line cable (Figure 3) to signal terminal block (Figure 1) as indicated below:

<table>
<thead>
<tr>
<th>Wire Color</th>
<th>Terminal No.</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yellow</td>
<td>61</td>
<td>+ Signal Line</td>
</tr>
<tr>
<td>Green</td>
<td>66</td>
<td>- Signal Line</td>
</tr>
<tr>
<td>Orange</td>
<td>62</td>
<td>Selector Magnet</td>
</tr>
<tr>
<td>Brown</td>
<td>65</td>
<td>Selector Magnet</td>
</tr>
</tbody>
</table>

Remove any auxiliary resistors from selector coil's circuit. Coils should be connected in parallel. Series connection is not recommended because it reduces margin.

(d) Connect black leads on 178886 power cable (Figure 3) to terminals 63 and 64 on upper side of signal terminal block (Figure 1). Tie any excess cable to terminal block mounting bracket with lacing twine.

(e) Connect leads at one end of 176393 extension cable (part of 177015 modification kit) to terminals 63 and 64 on lower side of signal terminal block (Figure 1). Remove base plate from under side of base by removing its mounting screws. Route 176393 cable along existing cable to power terminal block as shown in Figure 1. Loosen clamps holding existing cable and place 176393 cable under them. For continuous operation, connect leads on 176393 cable to terminals 21 and 23 on power terminal block. For switch controlled operation, connect leads to terminals 22 and 23. Switch control is recommended to permit turning off ac power to driver during maintenance periods. Replace base plate.

Note: On some models of base, a fuse and fuse block may be partially covered by magnet driver. If fuse is to be replaced, loosen two mounting screws and tilt driver to one side to provide ample clearance.
Figure 1 Wiring of Model 15 Base

Model 15 Base (BB)
(Top View)

176393 Cable

Hole in Base

Power Terminal Block

See Par 2.02(e) For Connections.

To a.c. Power

176393 Cable

Model 15 Base (BB)
(Top View)

176393 Cable

Hole in Base

Power Terminal Block

See Par 2.02(e) For Connections.

To a.c. Power

Figure 1 Wiring of Model 15 Base

176393 Cable

Upper Side

Yellow
Orange
Black
Brown
Green

0.25 MFD Capacitor

New Wiring

Signal Line

0.25 MFD Capacitor

Original Wiring

Signal Terminal Block

To Relay Mounting. Remove all Leads

Signal Line

To Resistor Block on Line Relay Mounting

Model 15 Base (BB)
(Top View)

74422 Bracket

176393 Cable

Hole in Base

Power Terminal Block

See Par 2.02(e) For Connections.

To a.c. Power

176393 Cable

Model 15 Base (BB)
(Top View)

176393 Cable

Hole in Base

Power Terminal Block

See Par 2.02(e) For Connections.

To a.c. Power

Figure 1 Wiring of Model 15 Base

176393 Cable

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To Relay Mounting. Remove all Leads

Signal Line

To Resistor Block on Line Relay Mounting

Model 15 Base (BB)
(Top View)

74422 Bracket

176393 Cable

Hole in Base

Power Terminal Block

See Par 2.02(e) For Connections.

To a.c. Power

176393 Cable

Model 15 Base (BB)
(Top View)

176393 Cable

Hole in Base

Power Terminal Block

See Par 2.02(e) For Connections.

To a.c. Power

Figure 1 Wiring of Model 15 Base

176393 Cable

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Green

0.25 MFD Capacitor

New Wiring

Signal Line

0.25 MFD Capacitor

Original Wiring

Signal Terminal Block

To Relay Mounting. Remove all Leads

Signal Line

To Resistor Block on Line Relay Mounting

Model 15 Base (BB)
(Top View)

74422 Bracket

176393 Cable

Hole in Base

Power Terminal Block

See Par 2.02(e) For Connections.

To a.c. Power

176393 Cable

Model 15 Base (BB)
(Top View)

176393 Cable

Hole in Base

Power Terminal Block

See Par 2.02(e) For Connections.

To a.c. Power
Figure 2 Mounting on Model 15 Base
Figure 3  177010 Electronic Selector Magnet Driver