# MARKER MULTIPLE ADDITIONS
## (O.M., T.M., AND TDM.)

CONTENTS



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## 1. GENERAL

1.1 This section covers the addition of marker multiple to existing marker multiple in a No. 1 Crossbar or Tandem Office.

1.2 Only one marker at a time should be made busy, however the associated multiple can be added on a coordinated basis on the different frame groups.

1.3 Many test methods require that the marker multiple be connected. Therefore the marker multiple extension and revision should be made at the early portion of the installation.

1.4 The added multiple should be fully connected at the new frames first and fanned but not connected on the working frames. Before connection to the working frames, the multiple should be thoroughly checked for continuity and crosses.

1.5 After the multiple is connected into the working equipment, it should again be checked for continuity and crosses. The continuity test should include a check of the leads from the old to the new equipment.

1.6 Once the new multiple is cut through to the old multiple, a cross check may not be able to be made without detecting false trouble conditions. In these cases a verification for solder crosses, wire clipping, etc. should be made at the cut through point.

1.7 It may be advisable to have a time interval between the time a marker is returned to service and another marker is made busy to determine if any in service reaction occurs on the multiple that was worked on previously.

## 2. ORIGINATING MARKER

2.1 When the office additions involve any of the following frames, the marker multiple is to be extended to these new frames.

(1) district links

(2) office links

(3) zone connectors

(4) originating marker connector units or frames

2.2 During light load periods, the link frames can be made busy to add the new connector relays. Only one link frame at a time should be made busy.

2.3 During light load periods, one marker connector at a time, can be removed from service for modification. See Section 14 of this handbook for detailed information. The removal of a marker connector results in ten or less senders being out of service.

## 3. TERMINATING MARKERS

3.1 When office additions involve any of the following frames, the marker multiple is to be extended to these new frames.

(1) incoming links

(2) line choice connectors

(3) terminating marker connector units or frames

(4) number group connector units or frames

3.2 The new connector relays can be added to the link frames when they are made busy. One link frame at a time can be made busy during light load periods.

3.3 One connector unit at a time can be made busy however, the associated sender subgroups also have to be made busy.

3.4 All other frames must be modified in light load periods, on a in service basis.

## 4. TANDEM MARKER

4.1 When the office additions involve any of the following frames, the marker multiple is to be extended to these new frames.

(1) trunk links

(2) office links

(3) marker connector units or frames

4.2 The new connector relays can be added to the link frames by making the link frame busy, one frame at a time, during light load periods.

4.3 One connector unit at a time can be made busy however, the associated sender subgroups also have to be made busy.

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