

## FALSE TROUBLE RELEASE FROM ORIGINATING MARKER DUE TO CROSSED CONTACTS ON THE DT1 RELAY NO. 1 CROSSBAR OFFICES

### 1. GENERAL

1.01 This section covers methods to be followed in connection with a trouble condition caused by the originating marker sending a false trouble release signal to subscriber senders due to crossed contacts on the DT1 relay.

### 2. INDICATIONS OF TROUBLE CONDITION

2.01 There will be no switch room audible or visual alarm attending this trouble condition.

2.02 The attention of the maintenance forces may be directed to the trouble condition by a large number of subscriber reports of no connection, no ring or false busy (overflow).

### 3. REACTIONS DUE TO TROUBLE

3.01 Originating traffic served by the marker in trouble may be falsely routed to overflow or the district junctor used on the call may be set in talking position without the cross-points closed.

### 4. IMMEDIATE PROCEDURE TO FOLLOW

4.01 When a large number of reports of no connection, no ring or false busy (overflow) are received it may indicate that an originating marker is returning a false trouble release signal on all calls. At the miscellaneous lamp panel associated with the originating trouble indicator check all originating marker busy lamps, DB and MB, to determine if they are lighting in a normal manner. If it is observed that the busy lamps associated with a particular originating marker are lighting at a greater frequency than the lamps associated with any other, make this marker busy.

### 5. ANALYSIS OF TROUBLE

5.01 Under normal operation in the originating marker the double test relay DT2 operates following the operation of relay ST1. The operated DT2 provides a path to operate relay DT1. When a trunk is selected relay DT2 releases opening the operating path of relay DT1. At this point relay DT1 releases provided the S1 lead of the trunk selected is free of ground. With the release of the DT2 relay a path is partially closed for operating relay DT3. The DT3 relay operates if the DT1 relay remains operated after the release of relay DT2.

With the DT3 relay operated ground from the operated ST5 relay is connected to the TRL lead and is extended through the district link connector, district junctor, and subscriber sender link to the subscriber sender. The subscriber sender recognizes ground on the TRL lead as a signal for another trial. However, due to circuit design, a subscriber sender is limited to three trials on a trouble release basis, the original or first trial, a second and third trial. If the TRL lead is grounded on the third trial the subscriber sender is released and the district junctor is set in talking position without the cross-points closed.

5.02 If, due to a trouble condition, the originating marker DT1 relay is falsely operated a trouble release signal will be returned to the subscriber sender as described in 5.01. The effect the marker in trouble will have on originating calls will depend upon the trial being made by a subscriber sender to complete a call when the marker in trouble is selected.

5.03 If the originating marker in trouble is selected on a first trial to serve a subscriber sender, but not on the second trial, the call should be completed.

5.04 If the originating marker in trouble is selected on a second trial to serve a subscriber sender and a different marker is selected for the third trial, the call will be routed to overflow.

5.05 If the originating marker in trouble is selected for the third trial to complete a call served by a subscriber sender, the district junctor will be set in talking position without any cross-points closed.

### 6. SUGGESTED METHOD FOR LOCATING AND CLEARING TROUBLE

6.01 Check originating marker busy lamps as described in 4.01.

6.02 If the originating marker in trouble can not be determined as described in 4.01 test each originating marker using the originating trouble indicator frame. The marker in trouble should indicate failure of the C relay to operate and the TRL and DT3 lamps should be lighted. Make the marker busy until the trouble is cleared.

**SECTION 216-623-301**

7. TROUBLE CONDITIONS CAUSING REACTIONS MAY BE LISTED BELOW

7.01 Welded 1-2 top contacts on the DT1 relay causing 1-2-3 top contacts to be made all the time.

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