1. GENERAL
1.01 This section covers methods to be followed in connection with troubles due to a falsely operated TB relay in a number group connector.

2. INDICATIONS OF TROUBLE CONDITION
2.01 Terminating trouble indicator records.

3. REACTIONS DUE TO TROUBLE
3.01 During a busy-hour period this trouble causes a backup of terminating traffic.
3.02 Practically all numbers in the number group will be affected.

4. IMMEDIATE PROCEDURE TO FOLLOW
4.01 Analyze trouble indicator records.

4.02 Insert make-busy plugs into the TRO (trouble reorder) jacks on the terminating trouble indicator.

5. ANALYSIS OF TROUBLE
5.01 With a TB relay mechanically locked operated a combination of F and C leads will be crossed thereby causing the marker to release on calls to all numbers in the number group except those in the TB relay involved.

6. SUGGESTED PROCEDURE FOR LOCATING AND CLEARING TROUBLE
6.01 Remove the covers from the TB relays in the number group and inspect for mechanically locked relays.
6.02 Use the terminating trouble indicator to determine which group of twenty lines do not cause reaction.

7. TROUBLE CONDITIONS CAUSING REACTIONS MAY BE LISTED BELOW
7.01 Armature on one half of a TB relay out of place causing the contacts to remain closed.
| NO. | TI | GT | DT | GR | DR | SL | CF | CN | SH | TN | H | I | F | TRQ | RD | CAD | MNC | HEB | HP | L | IF | JC | AL | ALL | LCE | LLG | LCO | HF | RF | TF | CA | CB | IF | LC | M | CH | L | JP | JF | JO | JS | MSN | TOL | CN | RC | RV | RP | TC |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|----|-----|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1   | ✓  | 0  | 3  | 1  | 1  | 1  | 3  | 5  | 8  | 8  | 8  | 8  | 8  | 8  | 8   | 4  | 8  | 8  | All | ✓  | ✓  | ✓  | 0  | 1  | 2  | 0  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
| 2   | ✓  | 0  | 2  | 0  | 3  | 2  | 3  | 8  | 6  | 8  | 8  | 8  | 8  | 8  | 8   | 4  | 8  | 8  | 0.5 | ✓  | ✓  | ✓  | 6  | 4  | 3  | 0  | ✓  | ✓  | ✓  | ✓  | ✓  |
| 3   | ✓  | 1  | 0  | 2  | 1  | 2  | 5  | 8  | 8  | 8  | 0  | 0  | 1  | 1   | 4  | 8  | 8  | 1.5 | ✓  | ✓  | ✓  | 6  | 3  | 1  | 5  | 0  | ✓  | ✓  | ✓  | ✓  | ✓  |
| 4   | ✓  | 0  | 2  | 1  | 0  | 6  | 0  | 7  | 8  | 2  | 3  | 4  | 4  | 4   | 4  | 4  | 4  | 0   | ✓  | ✓  | ✓  | 2  | 0  | 7  | 0  | ✓  | ✓  | ✓  | ✓  | ✓  |
| 5   | ✓  | 0  | 0  | 1  | 0  | 1  | 3  | 6  | 4  | 5  | 9  | 2  | 4  | 4   | 4  | 4  | 4  | All | ✓  | ✓  | ✓  | 2  | 0  | 7  | 0  | ✓  | ✓  | ✓  | ✓  | ✓  |

Column A - Trouble indication.
Columns B and C - Any marker or sender.
Column D - Any number in number group except those in the 2D block involved.
Column F - A number of LCF lamps with HD, RF, and TF lamps indicates more than 2 leads crossed in number group.

**Analysis of Indication:** Whenever a number of leads are crossed as indicated by all LCF lamps, it is generally the result of a relay operated falsely. In this case it is a TS relay.

**Immediate Procedure to Follow:** Plug TRO or TME jacks to prevent backup of terminating traffic. Locate trouble quickly.

**Procedure for Locating and Clearing Trouble:** Start inspecting relays and in the meantime use the terminating trouble indicator to determine relay operated falsely if possible.