FALSELY GROUNDED INCOMING LINK PRIMARY HOLD MAGNET OPERATING LEAD IN COMMON EQUIPMENT OF AN INCOMING LINK FRAME
NO. 1 CROSSBAR OFFICES

1. GENERAL

1.01 This section covers methods to be followed in connection with a falsely grounded primary hold magnet operating lead of an incoming link and connector frame.

2. INDICATIONS OF TROUBLE CONDITION

2.01 Numerous trouble indicator displays showing an "early SL" condition.

3. REACTIONS DUE TO TROUBLE

3.01 There will be a back-up of terminating traffic during busy hour periods due to increased marker holding time.

3.02 Calls on this incoming link frame will fail to complete.

4. IMMEDIATE PROCEDURE TO FOLLOW

4.01 Analyze trouble indicator records to determine frame in trouble, observe primary hold magnets of the incoming link frame to detect a primary hold magnet operating and immediately releasing. This hold magnet can be on any primary switch, but will always be the same numbered magnet and will be an indication of the lead in trouble.

4.02 When the lead in trouble is determined, the related hold magnets may be blocked normal with 556A tools to permit calls to complete on other channels.

5. ANALYSIS OF TROUBLE

5.01 A false ground on a primary hold magnet operating lead on the multiple side of the incoming link LC relays will cause the associated hold magnet to operate when any LC relay operates. If the select magnet operates sufficiently fast, a crosspoint is closed prior to channel selection. The false ground feeds through these crosspoints and causes immediate operation of the marker SL relay, blocking channel selection.

6. SUGGESTED PROCEDURE TO FOLLOW

6.01 By means of a test receiver connected to battery, check for false ground on the OR-5R and OL-5L punchings of the LC relay terminal strip. The lead in trouble may be split, by inserting a 258-type insulating plug in the corresponding MB jack, to assist in locating the false ground.

Caution: Remove insulating plug as soon as trouble is cleared.

7. TROUBLE CONDITIONS CAUSING REACTIONS MAY BE LISTED BELOW

7.01 A cross to ground in the pile-up of the No. 6 contact of the secondary switch MB jack of the incoming link frame.
| NO. | TI | CT | ET | GR | DR | SG | CF | CH | SH | TH | H | T | U | F | TRU | KG | DAF | NEC | HOB | HP | HP | L | IF | JC | JL | ALX | AZL | LSIF | LGIF | LQG | LQD | HP | IF | CA | IF | LG | M | CH | LI | IF | JP | IF | AE | J9 | M9 | TOL | CH | HZ | JY | HP | IC |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|----|-----|-----|-----|----|----|----|----|----|----|-----|-----|-----|-----|----|----|-----|----|-----|----|----|-----|----|
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| 2   | ✓  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
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| 6   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
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Column A  Trouble indication
Column B, C, D, E  Any marker, any sender, any number & number group
Column G  Particular incoming frame - any switch
Column O  The TE and SL lamps indicate the primary sleeve cross-points were closed and grounded without picking a channel
Column P, N, I, J, F, L, M, N, P, Q, R, S  Have no significance

Analysis of Indication: The TE and SL lamps indicate a false ground on the primary switch horizontal sleeve before setting up a channel. With the IF lamp repeating and the GC and DS lamps not repeating, the trouble points to the common equipment (leads GS-9R, GC-9L) of the incoming link frame. The RIL lamp indicates the trouble will be on leads GR-9R.

Immediate Procedure to Follow: Check the incoming link frame indicated for primary hold magnets operating and immediately releasing. These hold magnets can be on any switch but will always be the same numbered magnet. They will be an indication of the lead in trouble. Block hold magnets normal with S30A tools.

Proceeding for Locating and Clearing Trouble: Check for false ground on GS-9R or GC-9L leads. The lead in trouble may be split, by inserting a 25S type insulating plug in the corresponding MB jack, to assist in locating the false ground. Caution: remove insulating plug as soon as trouble is cleared.