TERMINATING MARKER CONTINUITY FAILURE
OPERATING PATH OF INCOMING LINK AND CONNECTOR RS RELAY AND
TERMINATING MARKER MKO RELAY

NO. 1 CROSSBAR OFFICES

1. GENERAL

1.01 This section covers methods to be followed in connection with troubles due to failure of terminating marker continuity test caused by failure of the operating path of the incoming link and connector RS relay of the terminating marker MKO relay.

2. INDICATIONS OF TROUBLE CONDITION

2.01 Terminating trouble indicator records.

3. REACTIONS DUE TROUBLE

3.01 During busy hour periods this trouble causes a back-up of terminating traffic.

3.02 Individual calls involved are completed on second trial.

4. IMMEDIATE PROCEEDURE TO FOLLOW

4.01 Analyze trouble indicator records.

(a) If the same terminating marker repeats on all indications remove it from service.

(b) If the same incoming link frame repeats on all indications observe the action of the RS relay.

4.02 If the RS relay fails to operate block it operated manually.

4.03 If the RS relay operates but fails to ground the MKO lead, block operated the MKO relays in all terminating markers, unless incoming mate frame operation is involved. Clear the trouble.

5. ANALYSIS OF TROUBLE

5.01 The RS relay of the incoming link and connector circuit is operated to provide ground for operating the secondary selecting magnets and also to return a signal over the MKO lead as a means for functioning the selecting magnet lock-out feature on mate frame operation. If the MKO relay in the terminating marker fails to operate it is prevented from selecting a channel.

6. SUGGESTED PROCEDURE FOR LOCATING AND CLEARING TROUBLE

6.01 Check the operating circuit of the RS and MKO relays.

7. TROUBLE CONDITIONS CAUSING REACTIONS MAY BE LISTED BELOW

7.01 Open winding of RS relay of incoming link frame.

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### Terminating Trouble Indicator Record

**Crossbar Offices**

**Column A - Trouble indication.**

- If trouble was in marker, same marker would be indicated.

**Column B - Any marker.**

- If trouble was in marker, same marker would be indicated.

**Column C - Any number or equipment may be indicated.**

- If trouble was in marker any IF lamp may be lighted.

**Column D - No CH lamp with TE lamp in column G and TK lamp in column N indicates failure to select a channel.**

**Column E - No MWD or WED lamp with IF lamp in column G and FC, AK and TK lamps in column N indicates continuity failure of MWD lead.**

**Columns J,E,2,M,F,Q,S - Have no significance.**

| NO. | TI | CT | DT | DR | DL | CT | CH | SN | TH | H | T | U | F | TR2 | RD | OAB | NOG | HP | LS | LL | IF | JC | ALX | ALZ | LEF | LLG | LOQ | HF | RF | TF | CA | CB | IF | LC | M | CH | LI | JSN | JS | JC | FS | MAN | TOL | CH | RC | FY | RP | TC |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|----|-----|-----|----|----|----|----|----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1   | ✓  | 1  | 2  | 0  | 2  | 3  | 2  | 6  | 4  | 2  | 2  | 6  | 4  | ✓   | 1  | 2  | 6  | 4  | ✓   | 1  | 2  | 6  | 4  | ✓   | 1  | 2  | 6  | 4  | ✓   | 1  | 2  | 6  | 4  | ✓   | 1  | 2  | 6  | 4  | ✓   | 1  | 2  | 6  | 4  | ✓   | 1  | 2  | 6  | 4  | ✓   |
| 2   | ✓  | 0  | 1  | 2  | 0  | 1  | 3  | 0  | 5  | 3  | 2  | 1  | 5  | 2  | 15  | ✓  | 1  | 2  | 4  | 6  | ✓   | 1  | 2  | 4  | 6  | ✓   | 1  | 2  | 4  | 6  | ✓   | 1  | 2  | 4  | 6  | ✓   | 1  | 2  | 4  | 6  | ✓   |
| 3   | ✓  | 1  | 0  | 1  | 2  | 3  | 4  | 2  | 6  | 4  | 2  | 2  | 6  | 4  | ✓   | 1  | 2  | 6  | 4  | ✓   | 1  | 2  | 6  | 4  | ✓   | 1  | 2  | 6  | 4  | ✓   | 1  | 2  | 6  | 4  | ✓   | 1  | 2  | 6  | 4  | ✓   |
| 4   | ✓  | 2  | 1  | 1  | 1  | 4  | 5  | 5  | 2  | 1  | 5  | 2  | 10  | ✓  | 1  | 2  | 6  | 4  | ✓   | 1  | 2  | 6  | 4  | ✓   | 1  | 2  | 6  | 4  | ✓   | 1  | 2  | 6  | 4  | ✓   | 1  | 2  | 6  | 4  | ✓   |

**Analysis of Indication:**
Note absence of MWD lamp indication. Also note that all failures occur on incoming link frame No. 2.

**Immediate Procedure to be Followed:**
- Observe action of RS relay on incoming link frame No. 2. If it fails to operate block it operated. If it operates, clear trouble or block operated the MWD relays in all markers.

**Procedure For Locating Trouble:**
- Check operating path of RS relay or failure to ground MWD lead.