

## OPEN BATTERY SUPPLY TO ORIGINATING MARKER CH- RELAYS NO. 1 CROSSBAR DIAL OFFICES

### 1. GENERAL

1.01 This section describes the originating trouble indication that is received when an open battery supply for operating the originating marker CH- relays is encountered.

### 2. INDICATIONS OF TROUBLE CONDITION

2.01 The trouble indicator records indicate by the lighted CHLO-9 and CHRO-9 lamps that all twenty of the marker channel selection relays operated. Actually no CH- relay operated on the call. Also, the lighted CHE lamp indicates no channel was selected.

### 3. REACTIONS DUE TO TROUBLE

3.01 There is no service reaction resulting from this trouble, except possibly during heavy load periods, since the calls involving the marker in trouble are completed on second trial by another marker.

### 4. IMMEDIATE PROCEDURE TO FOLLOW

4.01 Analyze the trouble indicator record. Since it is apparent that the channel selection functions of the marker are involved, remove the marker from service.

### 5. ANALYSIS OF TROUBLE

5.01 An explanation of the circuit condition resulting in the displays shown, is as follows: For example, assume an open at the bottom 1-2 contacts of the marker channel lock CHL relay. Ground is supplied over the A lead through the normal contacts of the channel testing AB and C relays, and through the winding of the unoperated CH- relay. This ground then feeds over the multiple to all other CH- relays and grounds all CH- leads to the originating trouble indicator when it is connected.

5.02 The originating marker times out and calls in the trouble indicator due to the fact that no CH- relay operated on the call.

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

6.01 It will be observed that no CH- relay operates in the marker. Check the bottom 1-2 contacts of the marker CHL relay for continuity.

### 7. TROUBLE CONDITIONS CAUSING REACTIONS MAY BE LISTED BELOW

7.01 Open at bottom 1-2 contacts of the CHL relay.

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