

DISTRICT LINK, TRUNK LINK AND OFFICE LINK FRAMES

ALARM ROUTINE

NO. 1 CROSSBAR OFFICES

1. GENERAL

1.01 This section covers the procedures to be followed in response to district and office link and connector circuit alarms in No. 1 crossbar offices.

1.02 This section is reissued to bring it in conformity with other material in the Plant Series. In this process marginal arrows have been omitted.

1.03 Whenever an open occurs in the chain circuit of the working MP or E relays at a time when the link and connector circuit is not in use; or whenever a trouble cross exists that would cause only one of the windings of a CH relay to be energized, the circuit is transferred from the working MP or E relays to the E or MP relays which were being held as emergency equipment. No E relays are provided on office frames. However, the MP relays of an even numbered link frame function as a regular chain circuit for each pair of office link frames and the MP relays of the odd numbered link frame function as an emergency equipment for both frames.

1.04 This transfer from the regular chain circuit to the emergency or from the emergency to the regular chain circuit operates the link and connector alarm giving the following indications of the condition: (A) a CH lamp is lighted on the district link, trunk link or even numbered office link frame according to which frame had the failure, (B) green aisle pilots are lighted to indicate the aisle in which the frame causing the alarm is located, (C) the intermittent minor alarm operates.

2. METHOD

2.01 If, in response to an intermittent minor alarm, a lighted CH lamp is found on the district link, trunk link or even numbered office link frame, operate the SA key on the frame showing the alarm if it is normal, or restore it to normal if it is operated, in order to retire the alarm and to extinguish its associated lighted lamps.

2.02 If the alarm persists, the trouble may be due to one of the following conditions:

District Link Frame
Trunk Link Frame

Open lead through the secondary winding of the CH relay through the MTR key to the TR-2 relay contact.

Open primary winding of the CH relay to the TR-2 relay contact.

Locking circuit for TR-1 relay open at TR-1 relay, SA key or the CH relay.

If no open exists then the trouble may be due to a trouble cross on the above contacts, keys or windings of the chain circuit of the working MP or E relays.

2.03 If the alarm retires upon the operation or release of the SA key, the trouble may be due to one of the following conditions:

District Link Frame
Trunk Link Frame

If TR- relays are operated, one of the chain circuits is open through the MP relays to the TR-2 relay.

If TR- relays are normal, one of the chain circuits is open through the E relays to the TR-2 relay.

If no open exists, then the trouble may be due to a trouble cross on the contacts of the above relays.

Office Link Frame

Open lead through the primary winding of the repeatedly operating CH relay through the MTR key to the TR-2 relay contact.

NOTE: Observe the CH relays on the odd and even frames to determine which one is repeatedly operating

Open secondary winding of CH relay to TR-2 relay contact.

Locking circuit for TR-1 relay open at TR-1 relay, SA key or the CH relays.

Office Link Frame

If TR- relays are operated, one of the chain circuits is open through the MP relays on the even frame to the TR-2 relay on the even numbered frame.

If TR- relays are normal, one of the chain circuits is open through the MP relays on the odd numbered frame to the TR-2 relay on the even numbered frame.

2.04 If, in response to an intermittent minor alarm no CH lamp is lighted on the district link, trunk link or even numbered office link frame in the aisle with the lighted green aisle pilot, and assuming that there is no defective CH lamp on these frames, observe which district link, trunk link or even numbered office link frame in the aisle with the lighted aisle pilot has the TR-1 relay operated and the other TR-relays normal.

2.05 The condition mentioned in 2.04 may be due to an open operating path of the TR-relays to the 1 and 2 lower contacts of the TR-1 relay operated.

2.06 Whenever the trouble has been cleared, transfer the chain circuits back to the regular or emergency according to the schedule being followed.

2.07 To transfer the chain circuits operate the MTR key, when the CH lamp on the frame lights or the intermittent minor alarm operates, restore the MTR key. Oper-

ate the SA key if it is normal, or restore it to normal if it is operated. Between the operation of the MTR key and the SA key the link and connector alarm is operated and its associated lamps are lighted. This temporary operation of the alarm also occurs when the chain circuits are manually transferred for routine purposes.

2.08 If, upon the operation or release of the SA key the alarm retires, but after the chain circuits have been transferred back to the regular or emergency there is a repetition of the alarm, the trouble may be due to a trouble cross on the working MP or E relays. This trouble cross may only be effective when one or more of the MP or E relays are normal or when one or more of the MP or E relays are operated.

3. REPORTS

3.01 The required record of these alarms should be entered on the proper form.