

STEP-BY-STEP SYSTEMS
NO. 1, 350A, 355A OR 360A
OUTGOING INFORMATION TRUNK
CIRCUIT
FROM LOCAL OR TOLL PRECEDING SELECTOR MULTIPLE
WITH OR WITHOUT HIGH LOW SUPERVISION

CHANGES

C. CHANGES IN CIRCUIT REQUIREMENTS OTHER THAN THOSE APPLYING TO ADDED OR REMOVED APPARATUS

- C.1 New adjustment for (L) relay (Fig. 2) added.
- C.2 Note 2 added.
- C.3 Block (L) No. added to (H1) adjustment.
- D. DESCRIPTION OF CIRCUIT CHANGES
- D.1 Fig. 1 rated Mfr. Disc.
- D.2 Fig. 2 added. When "Y" option is used contacts of (L) relay, instead of (SL), repeat disconnect signal to distant office to permit the release of the equipment at that office to be initiated sooner.
- D.3 Options Used table added.
- D.4 The max. ext. ckt. loop toward orig. end was 3500 ω , it is now changed to 2600 ω .

All other headings under Changes, no change.

1. PURPOSE OF CIRCUIT

1.1 This circuit is used for establishing a connection from selector multiple to an information operator. When used by operators, it is arranged to give reverse battery supervision to the originating end when the information operator answers.

2. WORKING LIMITS

- 2.1 Supervision toward originating end.
- 2.11 Maximum external circuit loop resistance 2600 ohms.
- 2.12 Minimum insulation resistance 15,000 ohms.
- 2.2 Supervision toward information desk.
- 2.21 Maximum external circuit loop resistance 3500 ohms.
- 2.22 Minimum insulation resistance 30,000 ohms.

3. FUNCTIONS

- 3.1 To signal the information operator.
- 3.2 When calls are originated by an operator, to give reverse battery supervision to the originating end when the information operator answers.
- 3.3 To hold the preceding selectors.
- 3.4 To release the selectors when the originating end disconnects and to make the trunk busy until the information operator disconnects.
- 3.5 To make the trunk busy when the make busy key in the information desk is operated.
- 3.6 To operate a last trunk busy register when required.

4. CONNECTING CIRCUITS

When this circuit is listed on a key-sheet the connecting information thereon is to be followed.

- 4.01 Step-By-Step Selector Circuit - SD-30200-01.*
- 4.02 Incoming Trunk Circuit at No. 1 or No. 2 Information Desk - SD-90434-01.
- 4.03 Incoming Trunk at Operating Room Desk No.19 - SD-90527-01.
- 4.04 Make Busy Circuit - SD-31225-01.
- 4.05 Traffic Register Circuit - SD-30896-01.*
- 4.06 Toll Preceding Selector Circuit - SD-31241-01.*
- 4.07 Incoming Trunk Circuit at No.3,4, 6A or 6B Information Desk - SD-90000-01.
- 4.08 Incoming Trunk Circuit at No. 3B, 4B, 6D or 6F Information Desk - SD-96355-01.
- 4.09 Incoming Trunk Circuit at No. 3A, 4A, 6C or 6E Information Desk - SD-96325-01.
- 4.10 Incoming Trunk Circuit at Operating Room Desk No. 23A, 23B, 23C or 23D - SD-95543-01, SD-95513-01.*

4.11 Incoming trunk Circuit at
Room Desk No. 23E or 23F -
SD-95580-01.

*Typical circuit.

DETAILED DESCRIPTION

5. SEIZURE - VISUAL SIGNAL AT INFORMATION DESK

5.1 Fig. 1

When a selector seizes this circuit, the (L) relay operates in turn operating (SL) and (RL). (SL) operating connects the (H) relay across the trunk to the information desk, and connects ground to the sleeve of the selector to hold all preceding switches operated. It also connects ground to the last trunk busy register when required. (RL) operated locks under control of (SL) but performs no function at this time. When the (H) relay is connected across the information trunk, supervision is given to the information operator. However, (H) relay does not operate at this time due to the high resistance of the information trunk.

5.2 Fig. 2

Relay (L) operating operates (SL) and also connects battery through the S winding of relay (H) to the "R" lead to signal the distant equipment. (SL) operating operates (RL) and connects ground to the S and LB leads. The circuit operation continues as described in paragraph 5.1.

6. ANSWERING THE CALL - REVERSE BATTERY SUPERVISION

When the information desk operator answers the call if the high resistance winding of the relay at the information desk is short circuited, (H) operates and with "Z" option, locks to the information desk trunk. (H) operates (H1) when Fig. B is used. (H1) operated reverses battery and ground toward the originating end for

supervisory purposes. The calling party may now communicate with the information operator, the talking path being established through the (T) and (R) condensers.

7. DISCONNECTION

7.1 Fig. 1

When the originating end disconnects (L) releases in turn releasing (SL) which removes ground from the sleeve of the selector and also releases (RL), and when "Y" option is used releases (H), and in turn (H1) if provided. When "Z" option is used, (H) does not release at this time. (RL) is slow in releasing so that during its releasing time all the selector switches used in the connection will release. With (RL) released, ground from the contact of the (H) or (H1), or ground over lead K from the make busy circuit will be connected to the sleeve of the selector as a busy condition. When the information desk operator disconnects, (H) and (H1) release (if not already released) restoring the circuit to normal.

7.2 Fig. 2

Relay (L) releasing releases relay (SL) and, when Option "Y" is used, disconnects battery through the S winding of relay (H) from the R lead to repeat the disconnect signal to the distant equipment. (SL) releasing in turn releases (RL) and the circuit continues to operate as described in paragraph 7.1.

8. MAKE BUSY

Connection to the make busy circuit is provided so that all trunks except those required for night service can be made busy from the information desk. When the make busy key at the information desk is operated ground is connected over lead K to the sleeve of the selector as a busy condition.

BELL TELEPHONE LABORATORIES, INCORPORATED

DEPT. 3030-PRR-FBB-BT