

CIRCUIT DESCRIPTION  
SYSTEMS DEVELOPMENT DEPARTMENT  
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P.B.X. SYSTEMS  
NO. 750-A  
STATION CIRCUIT

CHANGES

A. CHANGED AND ADDED FUNCTIONS

A.1 No change.

B. CHANGES IN APPARATUS

B.1 No change.

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

C.1 No change.

D. DESCRIPTION OF CIRCUIT CHANGES

D.1 Reissued to change the rating from "A. T. & T. Co. Standard" to "Mfr. Disc." and to add the replacing note "Replaced by SD-66437-01".

DEVELOPMENT

1. PURPOSE OF CIRCUIT

1.1 This circuit shows the station equipment for the 750-A P.B.X.

2. WORKING LIMITS

2.1 None.

OPERATION

3. FUNCTIONS

3.1 To provide a telephone equipped with keys for connecting to any one of three central office trunks, a key as a means of connecting a holding circuit to any of the trunks and a key for releasing the trunk keys, and connecting the station to a local intercommunicating circuit.

- 3.2 To provide an audible signal at the called station after it has been dialed by another local station.
- 3.3 To provide means for extending trunk calls to stations which do not have trunk keys, for ringing the bells at such stations and for monitoring on the connections.
- 3.4 To provide a dial by means of which any local station can effect a connection with any other local station or with an outside subscriber if in a dial central office district.

#### 4. CONNECTING CIRCUITS

- 4.1 750-A P.B.X. Trunk Circuit
- 4.2 750-A P.B.X. Line and Link Circuit
- 4.3 750-A P.B.X. Tone, Ringing and Alarm Circuit.
- 4.4 Standard Dial Station.
- 4.5 750-A P.B.X. Emergency Transfer Key Circuit.

#### DETAILED DESCRIPTION

#### 5. LOCAL CALLS

Stations equipped with handsets as shown in Figure 1 will have five keys designated (1), (2), (3), (H) and (L) located in the handset base. Stations equipped with desk stands as shown in Figure 2 and wall sets as shown in Figure 3 will have auxiliary keys of the same designations as in the handset. To make a local call, the (L) key is operated and the receiver removed from the switchhook; at stations not equipped with trunk keys the receiver is removed from the switchhook. Dial tone will be heard in the receiver as an indication that dialing may proceed.

Inward calls will be indicated by the ringing of the bell in the subset. In answering, the (L) key must be depressed at stations equipped with trunk keys.

#### 6. TRUNK CALLS

##### 6.1 Outgoing

To make a call to central office, one of the trunk keys (1), (2), or (3) is depressed and the re-

ceiver removed. If the trunk chosen is busy, a busy tone will be heard in the receiver.

## 6.2 Incoming.

An incoming call will be indicated by the ringing of one of the trunk gongs and the lighting of a trunk lamp shown on the trunk circuit. These signals will be distinctive in order to show on which trunk the call is being made. To answer the call, the trunk key (1), (2) or (3) according to the trunk signal operated must be depressed and the receiver removed.

## 7. TRANSFERRED CALLS

To transfer a call, either incoming or outgoing, the (H) key is depressed for a short interval. The station to which the call is to be transferred may then be called locally by depressing the (L) key and dialing. The station calling must then be informed to which trunk the call is connected. To connect to the trunk, the station must then operate the proper trunk key, (1), (2) or (3) after being released from the local connections.

## 8. CALLS TO KEYLESS STATIONS

Trunk calls may be extended to stations which do not have trunk keys by a station which is equipped with the keys shown in Figure 4 or 5. To extend an inward call, the (Mon) key must first be operated in order to determine whether or not the station is busy. If the station is idle, the (Talk) and (Ring) keys should then be operated to ring the station bell. When the station answers, a talking connection will be completed to the central office. During talking the station at which the keys are located may not make another call, but may listen in or hang up as desired. When the trunk conversation is terminated all keys should be restored to normal.

## 9. CALLS FROM KEYLESS STATIONS

In order to originate a trunk call, keyless stations must dial the station equipped with keys per Figures 4 and 5. The trunk key (1), (2) or

(3) and the (Talk) key at that station are then operated, connecting the calling station to the trunk.

BELL TELEPHONE LABORATORIES, INC.

DEPT. 332-C

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WHM)GS