

STATION SYSTEMS  
KEY AND TELEPHONE CIRCUIT  
8A ANNOUNCEMENT SYSTEM

Arranged for Connecting a Line Facility and a Manual Telephone Circuit to One or Two Telephone Answering Sets for Dictating or Checking a Recorded Message, Monitoring a Message Being Transmitted When the Answering Set Is in the Automatic Answer Condition, or for Answering Calls and Making "Live" or In-person Announcements During Periods of Answering Set or Commercial Power Failure

**0. CHANGES**

**0.1 CHANGED AND ADDED FUNCTIONS**

- (a) The ringer leads have been rearranged in the telephone set and one lead added between the telephone set and each answering set to permit certain ringer switching functions to be performed in the answering set.

**0.2 CHANGES IN APPARATUS**

<u>Apparatus</u>	<u>Superseded</u>	<u>Superseded by</u>
Telephone Set	500C	500CR
Telephone Set	565LA	500LAR

**0.3 CHANGES IN CIRCUIT REQUIREMENTS  
(Not Associated with 0, 2 Above)**

None.

**0.4 DESCRIPTION OF CIRCUIT CHANGES**

- (a) The "G1" lead is provided to return the ringer circuit to a ground in the answering set. The answering set ground is under control of certain switching equipment in the answering set so that the ringer is disconnected when a message is being dictated or transmitted.

**1. PURPOSE OF CIRCUIT**

This circuit provides station talking circuit and switching arrangements for use with the 8A announcement system.

**2. WORKING LIMITS**

None.

**3. FUNCTIONS**

This circuit provides for:

- (a) A handset and antisidetone transmission circuit for connection to a 2-wire common battery line or a telephone answering set.

- (b) Connecting a telephone circuit to either of two telephone answering sets by means of pickup keys in a telephone set.

- (c) Connecting a line facility from an announcement trunk circuit to either of two telephone answering sets by means of a turn-button-type key in a telephone set.

- (d) Monitoring the announcement being transmitted by the in-service telephone answering set.

- (e) A ringer connected to the circuit to serve as an audible signal under conditions of commercial power or answering set failure.

- (f) Making live announcements under conditions of commercial power or answering set failure.

**4. CONNECTING CIRCUITS**

When this circuit is listed on a key sheet, the connecting information thereon is to be followed. The following are typical connecting circuits:

- (a) Telephone Answering Set 2A - LA-830081.  
(b) Telephone Answering Set 2B - LA-568291.  
(c) Control and Distributing Circuit - Announcement System No. 8A - SD-95869-01.

**5. DESCRIPTION OF OPERATION**

**5.1 TRANSMITTING AND RECEIVING**

The handset and network circuits function in the usual manner as a common battery subscriber station circuit.

**5.2 ANSWERING SET SELECTION**

The pickup keys are of the locking type and are arranged to release other pickup keys when operated. They have three make contacts on each key and are mechanically interlinked so that an

operated key breaks its contacts before the next operated key makes its contacts. When a pickup key is operated, the common circuits are connected to the answering set associated with that key. A message may then be dictated, checked, or monitored by proper operation of the answering set.

### 5.3 TRANSFER OF LINE FACILITY

A turn-button-type key is provided for transferring the line facility from one answering set to the other. This provision is made in order that either of the two answering sets may be connected to and the other disconnected from the line facility for maintenance or to record a new message.

### 5.4 MONITORING THE ANNOUNCEMENT

The announcement being transmitted by the telephone answering set in service may be monitored by operating the pickup key associated with that answering set and listening with the handset receiver. Because no transmitter current is supplied under this condition, there is no interference with the announcement.

### 5.5 AUDIBLE SIGNAL

A ringer and capacitor are provided in the set and are connected so that the ringer will be associated with the telephone answering set whose pickup key is operated. The ringer will sound on incoming calls only when the associated telephone answering set is connected to the line facility and its ON-OFF switch is in the OFF position.

### 5.6 LIVE ANNOUNCEMENTS

If commercial power fails, or if, for some other reason, both telephone answering

sets become inoperative, live announcements may be made for the duration of the failure. The pickup key and turn-button key should be operated to connect one answering set to both the line facility and the telephone circuit. Operation of the answering set ON-OFF switch to the OFF position connects the telephone circuit to the announcement trunk. The telephone set ringer will sound when there is a call waiting to be answered. Upon lifting the handset, the ringing will be tripped and the announcement can be made by speaking into the transmitter. When the announcement is completed, the handset is replaced on its mounting, or the switchhook is depressed. If another call is waiting, the ringer will sound again. The handset is lifted or the switchhook released, and the announcement is repeated. This process is continued until all requests for the announcement have been completed, as indicated by the ringer's remaining silent when the switchhook is depressed at the end of an announcement. Upon restoration of commercial power or clearing of trouble, it is necessary only to operate the ON-OFF switch of the answering set to be placed in service to the ON position, and to operate the turn-button key in the telephone set to connect the line facility to the answering set. Operation of the pickup key to connect the telephone set to the answering set placed in service permits monitoring of the transmitted message by lifting the handset and listening.

### 5.7 INSTALLATIONS HAVING ONE ANSWERING SET ONLY, Fig. 2

Operation of single-answering-set installations is the same as described for the two-answering-set installations, except that 5.2, 5.3, and references to key operations do not apply.

BELL TELEPHONE LABORATORIES, INCORPORATED

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