SECTION C71.349.1 Issue 1, June, 1957 AT&TCo Standard

1A1 KEY TELEPHONE SYSTEM

SIGNAL KEY AND BUZZER CIRCUITS

(CONNECTION DATA)

# OBSE SPEC

## 1.00 GENERAL

- 1.01 This section covers connections at the apparatus cabinet for code and/or selective, internal or external, signal key and buzzer circuits.
- 1.02 Connections at the station for signal key and buzzer circuits are included in the C sections covering the type equipment being used.
- 1.03 The 549-type keys are 4-button or 8-button nonlocking push-button keys. These keys are designed primarily for use without permanent fastening, the bases being provided with cork and rubber pads so that the keys may be used on furniture. Screw holes, however, have been provided under the escutcheon plate so that the key can be mounted permanently where this is desirable.
- 1.04 The 551A key is a single nonlocking push-button key. This key is designed for permanent mounting and is to be connected by wiring brought in through the key.
- 1.05 The connection information in this section can be applied to the 1A key telephone system.

# 2.00 KEY AND RUNNING CABLE

- 2.01 When key or running cable pairs are used for signal key and buzzer circuits, the conductors are assigned as follows: (See Figs. 1 and 2 for code and/or selective signaling and Fig. 3 for selective signaling.)
  - One pair is assigned for each signal key circuit.
    - 1. One conductor is to be used to supply ground to signal key.

- One conductor is to be used to connect signal key (S lead) to bridging block.
- One pair is assigned for each buzzer circuit.
  - 1. One conductor is to be used to supply power to buzzer.
  - 2. One conductor is to be used to connect buzzer (Bl lead) to bridging block.
- The S lead from the signal keys are to be bridged to the Bl leads from their associated buzzers at the bridging block.

### 3.00 INSTALLATION

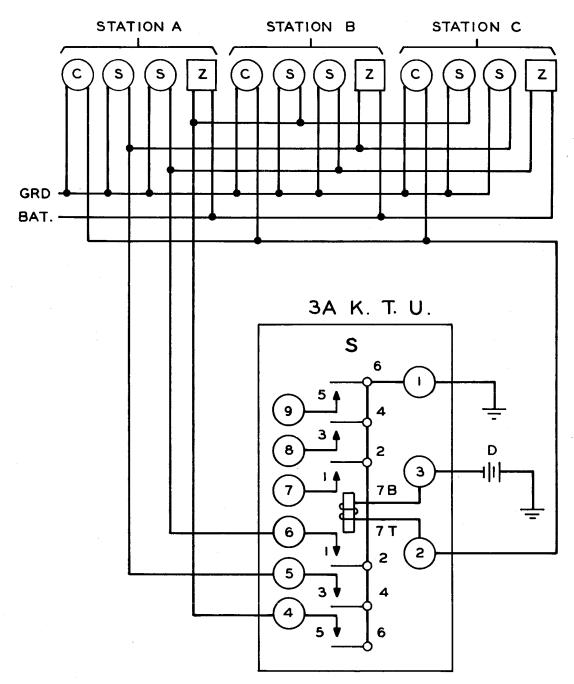
- 3.01 In locating buzzers, consider the customer's wishes, specifications on the service order or attachment thereto, and factors outlined below:
  - Select location where signal will be clearly heard by the customer, giving due consideration to the volume of sound output.
  - Locate separately mounted buzzers at least one foot from subscriber set with induction coil to reduce magnetic pickup from buzzer to induction coil. At wall installations mount buzzer sufficiently far away from wall set to reduce pickup of buzzer vibration by transmitter.
- 3.02 The 7-type and similar buzzers may be mounted in any position, but it is preferable to mount them with the contact springs in a vertical plane so that the possibility of dust or dirt settling and causing operating failure is unlikely. Mount 7-type bells either with the base on a

horizontal or vertical surface with the gong at top or bottom.

3.03 If desired, a 7-type buzzer may be mounted in place of the ringer in any of the 410, 411, 440, 441, 460, and 461 key telephone sets by means of a 36A bracket. The buzzer is used for signaling on an intercommunicating line or as a common line signal. Because of the shield around the induction coil, the buzzer may be mounted in these sets without magnetic pickup from the buzzer to the induction coil. In the 410- and 411-type sets, the buzzer is installed with the cover removed because of space limitations. In the 4and 6-button sets, the buzzer may be installed with or without the cover depending upon buzzer volume desired. The 36A

bracket is also arranged to mount a 152A capacitor which should be used when radio frequency suppression is required for the buzzer.

3.04 A 7-type buzzer may be substituted for the C-type ringer in all 500-series telephone sets (key or keyless) when a buzzer is desired for a common signal or an intercommunicating line signal. The buzzer is mounted on a 44B bracket which is installed using the screws and threaded holes provided for the ringer. This bracket is designed to mount a 152A capacitor, in addition to the buzzer, when radio frequency suppression is needed for the buzzer. The 44B bracket replaces the 44A which can be used with all 500 series telephone sets except 540, 560, and 592 types.



# SYMBOLS

- C = PUSH BUTTON FOR CODE SIGNALING
- S = PUSH BUTTON FOR SELECTIVE SIGNALING
- Z = BUZZER

REFERENCE: SD 69203-01 FIG. 19

FIG. 1 - CODE AND SELECTIVE SIGNALING - 3A KEY TELEPHONE UNIT

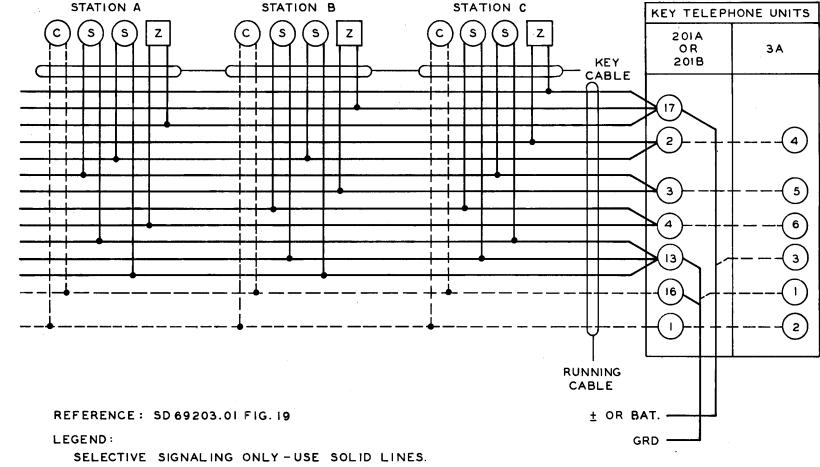
FIG.

2

TYPICAL CO SIGNALING : SYSTEM

FOR

AND/OR SELECTIVE 1A1 KEY TELEPHONE



CODE SIGNALING ONLY-STRAP DESIRED BUZZER TERMINALS, I THRU 12, ON 201A OR 201B K.T.U. USE SOLID BUZZER LINES AND DOTTED SIGNAL KEY LINES. 3B K.T.U. NOT USED.

CODE AND SELECTIVE SIGNALING-USE DOTTED (CODE) AND SOLID (SELECTIVE) LINES.

WHOLE PAIRS USED FOR SI AND GRD LEADS TO SIGNAL KEYS AND ALSO FOR BI AND RI LEADS TO BUZZERS.

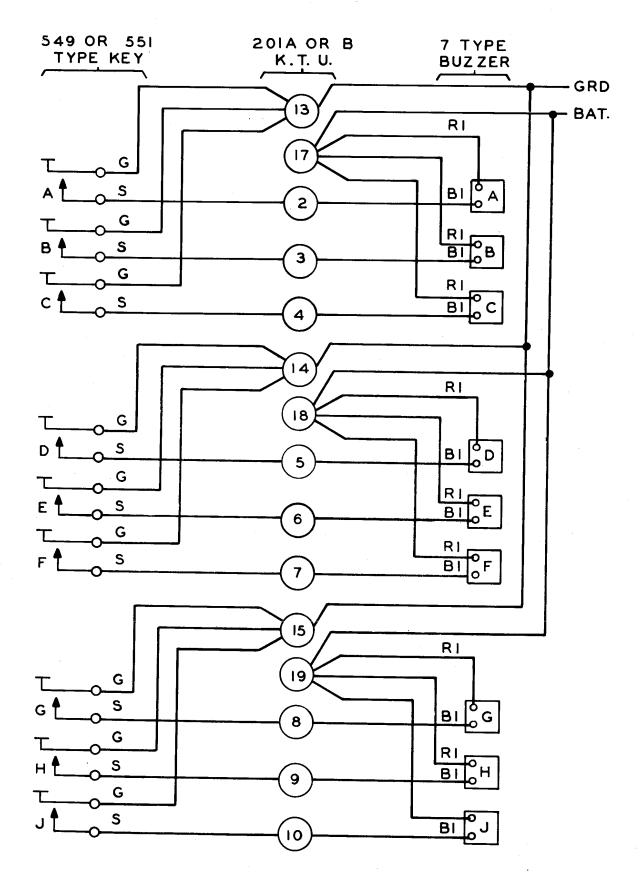


FIG. 3 - TYPICAL 9-STATION SELECTIVE BUZZER CIRCUIT - STATIONS A THROUGH J