BELL SYSTEM PRACTICES Plant Series

BUZZERS AND BELLS

CONNECTIONS AND LIMITATIONS

I. GENERAL

 1.01 This section covers the connections for buzzers and bells and provides a standard method of connecting pushbutton and buzzer systems.

1.02 It is reissued to modify Fig. 2.

2. LIMITATIONS

2.01 The number of audible signals operated in multiple by a common pushbutton or 6021-type key shall not exceed:

- Nine 7A-49 bells.
- Ten 7A-49 buzzers.
- Six 7E-49 bells.
- Eight 7E-49 buzzers.

- 2.02 Relay equipment may be used to operate a number of audible signals in multiple. Do not exceed maximum load of relay contacts.
- 2.03 Buzzers or bells should be of the same type throughout a pushbutton and buzzer system.

2012A or KS-16184 Transformer

2.04 Either a 2012A or KS-16184 transformer may be used for small pushbutton and buzzer systems requiring not more than 1/4 amp.

2.05 With 115 volts 60 cycles applied to the primary, the secondary winding delivers
6.7 volts 60 cycles at 0.250 amp.

2.06 Where a common battery feeder is used for intercommunicating and signaling, connect a 23A KTU across the signal circuit (Fig. 1).



Fig. 1 - Noise Suppression Filter



Fig. 2 - Large Pushbutton and Buzzer System

2.07 Table A gives the maximum wire length between pushbutton key and buzzer or bells.Signals are operated in multiple.

TABLE A

Number of 7B-49 Buzzers or 7C-49 Bells	Length of Run for One Pair of JKT Wire
	feet
3	0- 110
2	111- 600
1	601-1100

MAXIMUM WIRE LENGTH

3. CONNECTIONS

3.01 A simplified method of connecting buzzers, bells, and pushbutton keys is to be used on all systems. This method ensures the pairing of all key and buzzer leads throughout the system (Fig. 2 and 3).

3.02 Subsequent changes and additions may be made with a minimum of wiring changes.

3.03 Pairing of all leads will reduce the possibility of interference in adjacent talking circuits.

3.04 Where 7-type bells are connected to 60cycle alternating current, bell operation may be more satisfactory if the dc terminals are used.

3.05 Connect 7-type buzzers or bells as shown in Fig. 4.

3.06 Where radio frequency induction is caused by a sparking buzzer or bell contact, operating power should be ac and connections should be to the ac terminals. A 152A capacitor should be used across buzzer contacts when power supply is dc (Fig. 4).





7-TYPE BUZZER OR BELL



Fig. 4 - AC and DC Connections