

103A KEY EQUIPMENT

SECRETARIAL ANSWERING SERVICE

1.00 GENERAL

1.01 This section was formerly Station Installation and Maintenance Section C53.411, Issue 2. Except for editorial changes and renumbering for inclusion in the Station Operations Manual, no other revisions have been made.

1.02 This section covers the description, use, installation, maintenance, and supplies for the 103A key equipment.

2.00 DESCRIPTION AND USE

2.01 This equipment is designed to give secretarial or similar service *without holding*, on central office lines or PBX extensions. It permits an attendant to answer a number of telephone lines when the normal users of these lines are absent or desire to have an attendant answer their calls. It comes in two basic sizes of 10- and 20-line capacities. Additional units of 10 lines may be added, with 40 lines being the accepted limit for any one attendant's telephone circuit (see Fig. 1 and 2).

2.02 No apparatus cabinet is required for this system since everything but the common audible signal is mounted in the key box. A ringer or a buzzer placed in any convenient location may be used as the common audible signal.

2.03 The visual signal associated with each line is a 3-element, cold cathode tube which lights during the ringing interval. The third element of the tube provides a path for operating the common audible signal on the same ringing current which causes the lamp to light. Since these tubes have a long life expectancy, the lamp terminals are soldered to the local wiring (see Fig. 3).

2.04 Designation strip holders are located at the top and bottom of the key unit faceplate and are designed to permit insertion or removal of designations without disturbing the apparatus. Detachable 9A cardholders are available for these key boxes when the standard designation strips are inadequate. For installation instructions see the C Section entitled Designation Strips and Cards.

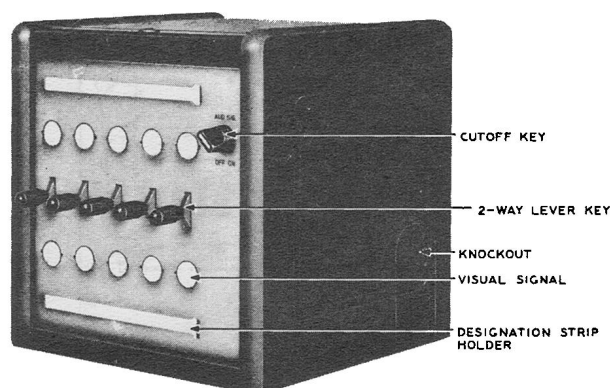


Fig. 1 — J53011A Key Box, 10-line Secretarial

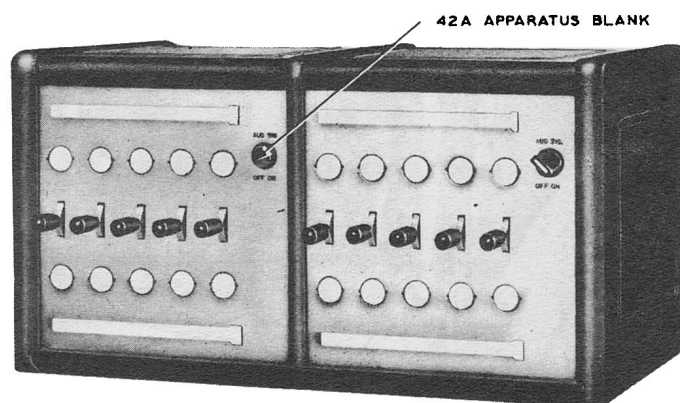


Fig. 2 — J53011B Key Box, 20-line Secretarial

2.05 Where desired by the customer, a key may be provided at a station to connect or disconnect the secretarial equipment from the telephone line.

2.06 When the telephone stations are rung, the cold cathode tubes light during the ringing intervals, and if the audible signal key is ON, the audible signal sounds. The attendant, upon observing the lighted signal, operates the associated line key which connects the attendants telephone set across the line and trips ringing, thus extinguishing the lighted lamp and silencing the audible signal. After the message has been received, the key is restored to normal, disconnecting the attendants telephone set from the line.

2.07 Where the lines intercepted are from manual central offices or are extensions from manual switchboards, the operator should be advised of the need for proper ringing since the lamp lights only during the ringing interval.

3.00 INSTALLATION AND MAINTENANCE

3.01 The 103A key equipment is installed in the same manner as the 101A key box covered in the C Section entitled 101A and 101B Key Equipment, Installation.

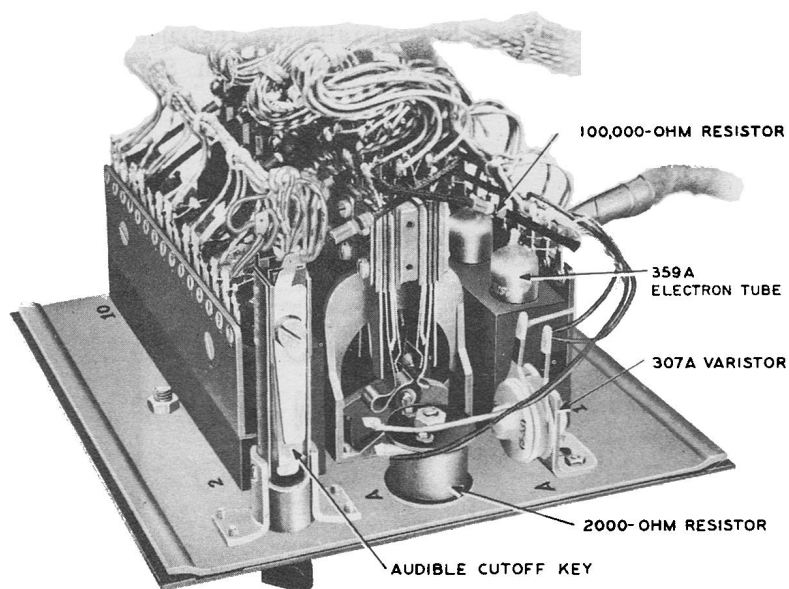


Fig. 3 — J53011A Key Box, Faceplate (Rear View)

3.02 The local cable for the key unit is looped behind the face equipment with sufficient slack to permit removal of the entire unit from the supporting framework. This cable is terminated on the terminal panel which is above the key unit in a readily accessible position. The cable ends are terminated as shown in Fig. 4, while the cable form is brought out through the knockout provided in the side panel of the key box. The cable is normally brought out from the right side so that additional units may be added to the left of the initial unit without disturbing existing cabling.

3.03 In connecting the audible signal, the 4C buzzer need not be poled but should be connected for ac operations. When a ringer (584DF subscriber set or equivalent) is used, it must be poled with the red lead to ground.

3.04 Where the capacity of the initial installation is greater than 20 lines, or where the capacity of an existing installation is to be in-

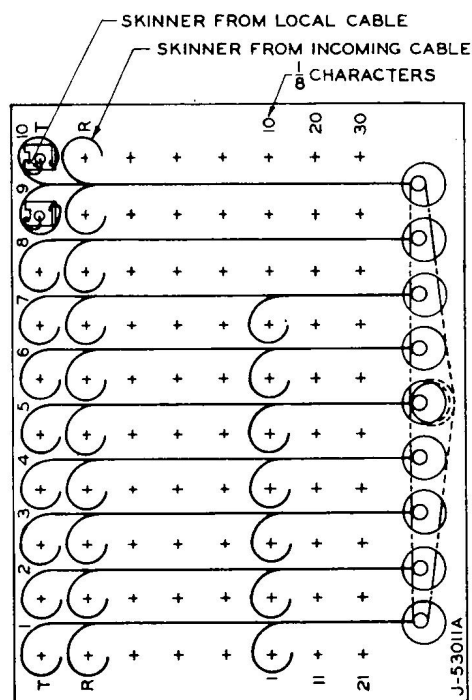


Fig. 4 — 103A Key Equipment Terminal Panel (Cable Arrangement)

creased, the additional units are installed in the following manner:

1. Remove the right side panel of the key box being added.
2. Remove the 556B audible signal cutoff key from the box being added, and insert a 42A apparatus blank in its place.
3. Remove the left side panel of the unit to which the supplemental key box is being added.
4. Insert a separator between the old and new key boxes as shown in Fig. 5, and couple the assembly.
5. Run wiring between units as shown in Fig. 6.

3.05 When it is necessary to replace the cold cathode tube, the new tube should be inserted in the socket so that the tip touches the back of the lamp cap.

3.06 Ringer Limitations:

Appearances	High-impedance Ringers	Low-impedance Ringers
1	3	
1	1	1
2	1	

3.07 Working Limits: An ac, dc, or negative superimposed ringing current must be used. Ringing current must be applied on the ring side of the line while ground is on the tip side.

Minimum dc Component	Maximum Earth Potential
volts	
15	5
25	10
30	15

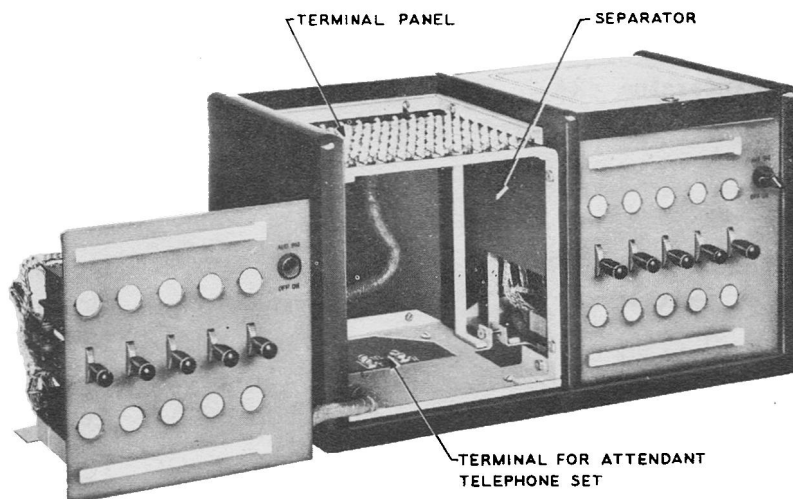


Fig. 5 — J53011B Key Box, Left Faceplate Removed

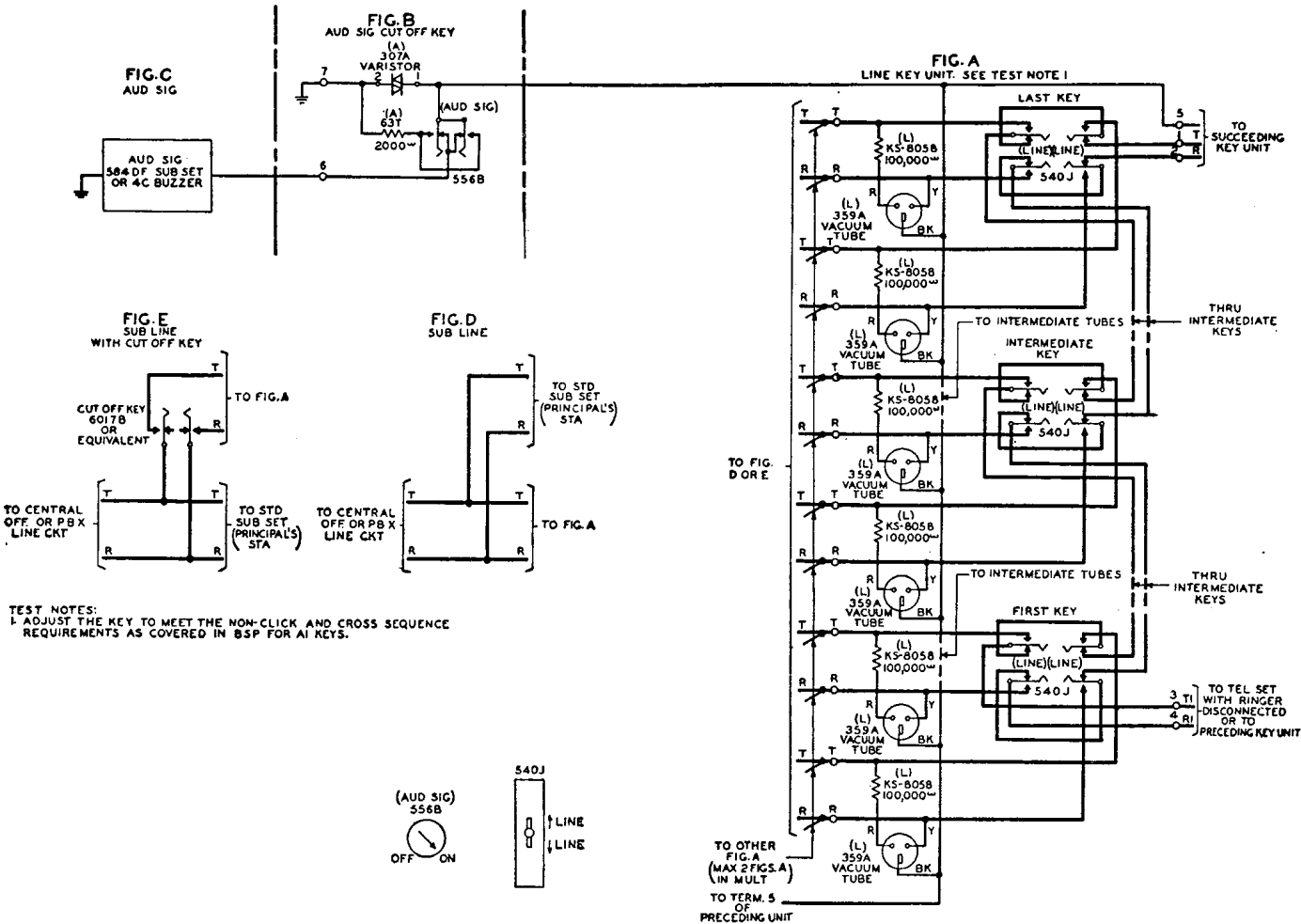


Fig. 6 —Circuit Diagram

4.00 SUPPLIES

INDEX	ORDERING INFORMATION AND DESCRIPTION	INDEX	ORDERING INFORMATION AND DESCRIPTION
Blank (Apparatus)	Blank, Apparatus, 42A.	Separator	ED-69074-01, Group 8, Single Separator. Separating panel used when adding additional units.
Boxes (Key)	J53011A, List 1, Key Box. 10-line secretarial.	Set (Subscriber)	Set, Subscriber, 584DF. Or equivalent. Used as audible signal for key.
Buzzer (Station Line)	J53011B, List 1, Key Box. 20-line secretarial.	Set (Telephone)	Set, Telephone, 302G-3. Telephone set used for main stations and attend- ants telephone sets. (Any standard set may be used.)
Key	Buzzer, 4C. For common audible signal.	Tube (Electron)	Tube, Electron, 359A. Tube used for visual signal in key box.
	Key, 6017B. Cutoff key for main stations.		